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Manual
WINGATE®
Configuration Tool for UNIGATE®

Deutschmann Automation GmbH & Co. KG
www.deutschmann.de | wiki.deutschmann.de

Manual Art.-No. V4229E

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Disclaimer of liability

We have checked the contents of the document for conformity with the hardware and software described. Nevertheless, we are unable to preclude the possibility of deviations so that we are unable to assume warranty for full compliance. The information given in the publication is, however, reviewed regularly. Necessary amendments are incorporated in the following editions. We would be pleased to receive any improvement proposals which you may have.

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1 Introduction

WINGATE® is a configuration software for Deutschmann UNIGATE® devices.

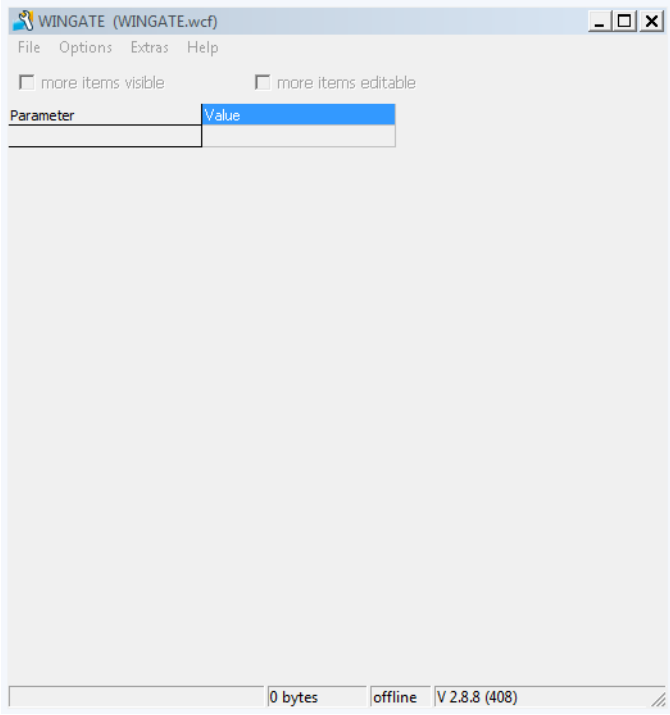
It is important to always work with the current version of WINGATE. The current version can be found in the download area on www.deutschmann.de.

Conceptual

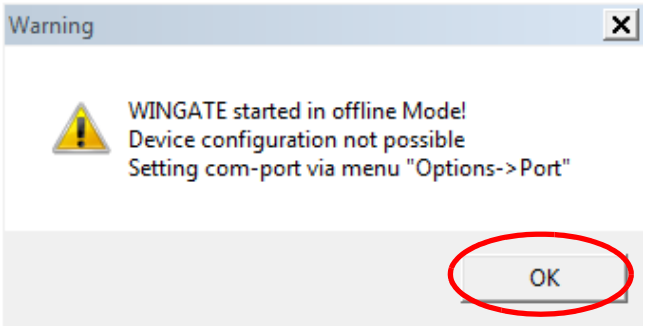
In the further course of this manual screenshots of settings and startup message are used. These are just examples.

2 Installation

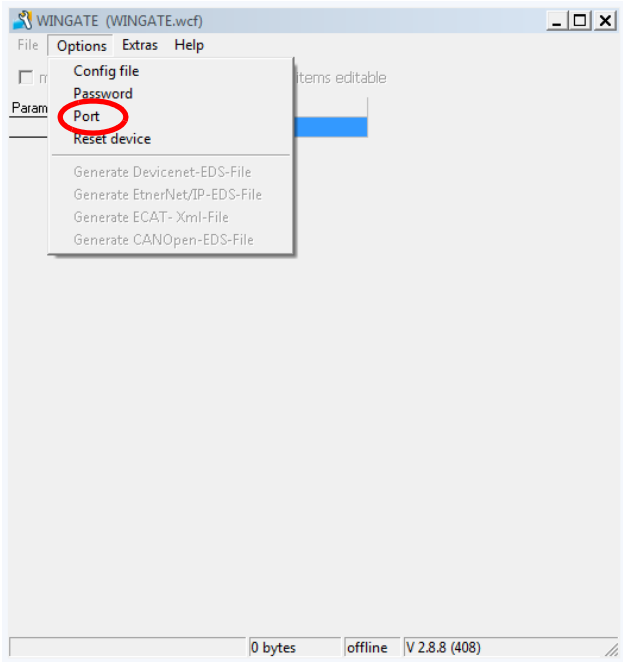
1. Install and start WINGATE. Open the Zip-file „SetupGW.zip“ and execute the file „SetupGW...exe“.



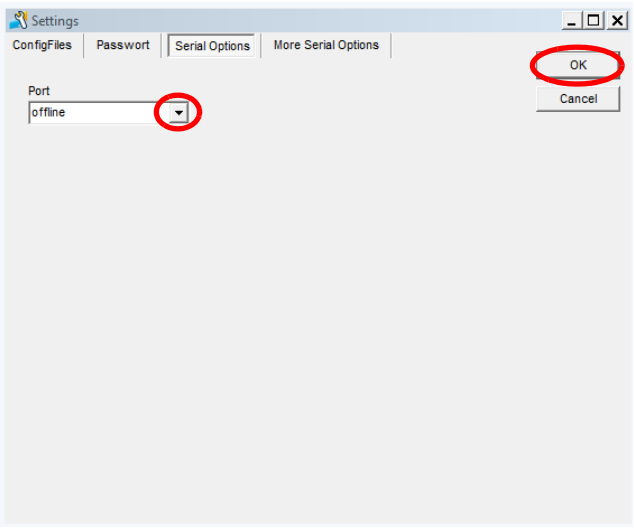
Attention: After the initial installation a warning note appears. Confirm with „OK“.



2. Select the COM-interface via „Options“ -> „Port“.

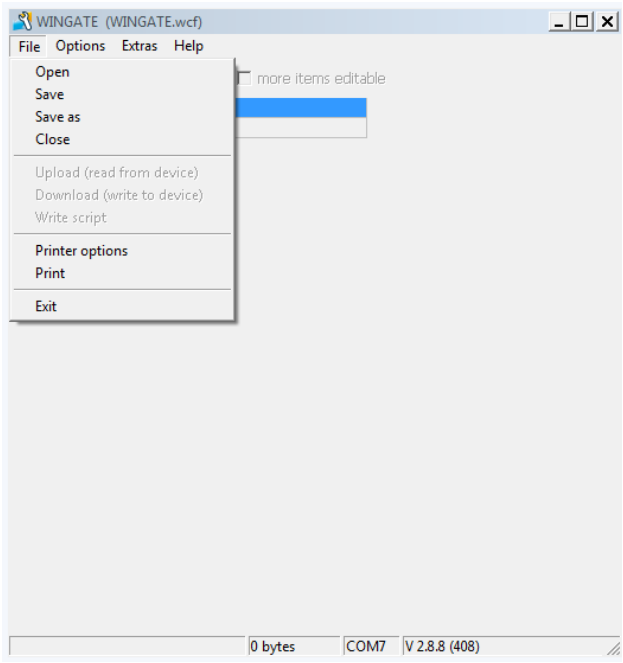


Another window opens, select the COM-interface and confirm with „OK“. WINGATE can be used now.



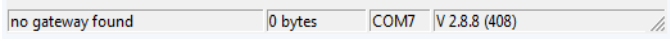
Note: If necessary, the setting of the serial interface can be adjusted via the menu item „More Serial Options“.

3. WINGATE can be closed via menu item „File“ -> „Exit“. After a restart, the selected COM interface is displayed in the status bar.



Note: The status bar of WINGATE has 4 status fields with the following information:

- **Status field 1:** Recent WINGATE activity. In this example, the message **„no gateway found“**.
- **Status field 2:** Configuration area. In this example **„0 bytes“**.
- **Status field 3:** Used COM-interface. In this example **„COM7“**.
- **Status field 4:** Version-No. of WINGATE and the used configuration file (*.wcf). In this example **„V2.8.8“** stands for version and **„(408)“** for the used configuration file.



Note: (*.wcf) stands for **w**ingate **c**ofiguration **f**ile.

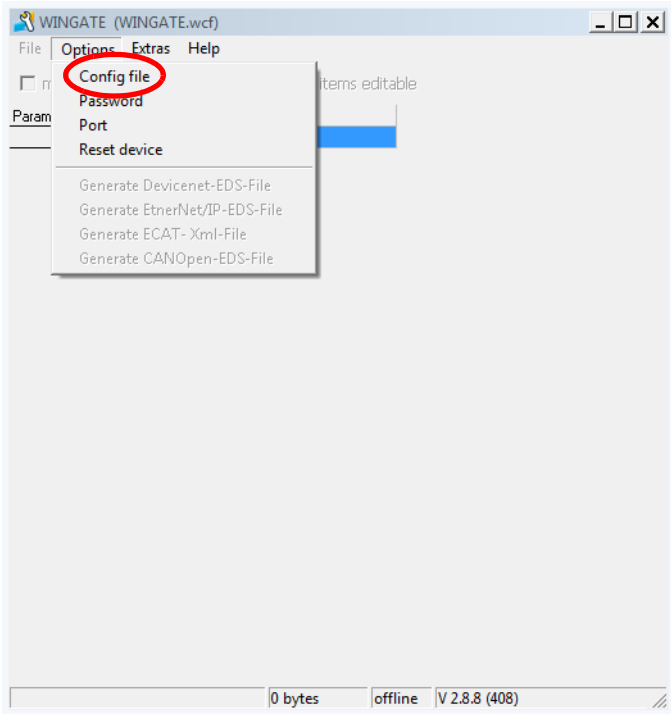
2.1 Advanced settings

Further adjustments are possible via menu item „Options“.

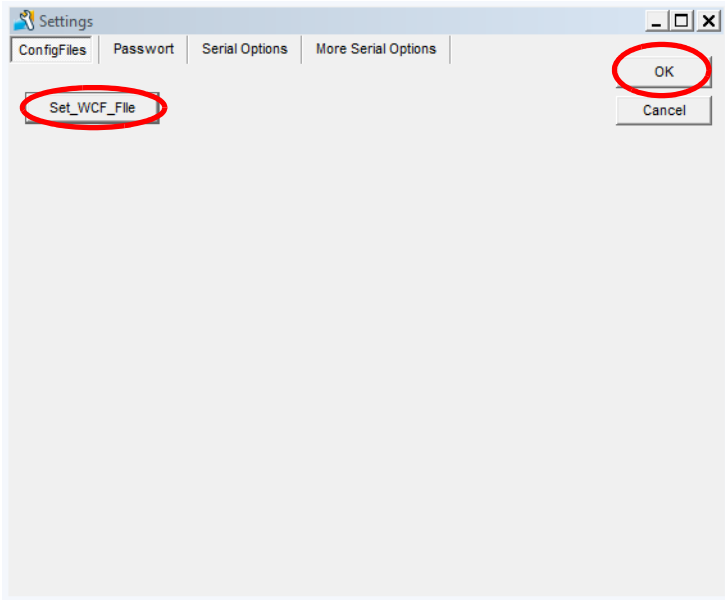
2.1.1 Config file

WINGATE needs a configuration file (*.wcf). In general, the most recent configuration file is already part of the setup, and therefore doesn‘t need to be loaded additionally.

1. Settings can be reached via menu item „Options“ -> „Config file“.



2. A WINGATE_Configuration_File (*.wcf) can be selected, loaded and confirmed with „OK“ via the button „Set_WCF_File“.
The adjustment is effective after WINGATE is closed and restarted. The status bar of WINGATE shows the version number and, in brackets, the loaded WCF file.



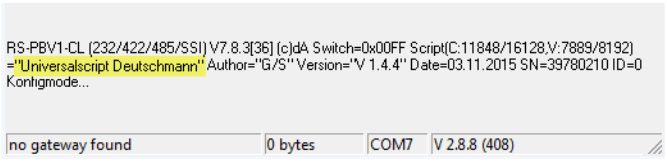
2.1.2 Password

The input screen for „Password“ is reserved exclusively for Deutschmann Automation.

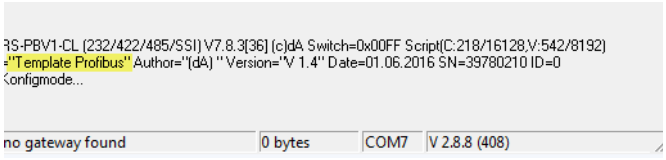
2.1.3 Reset device

The UNIGATE® can be reset via „Reset device“. The following must be considered:

- **Reset with Universalscript Deutschmann:** All parameters are reset to factory setting. The „Universalscript Deutschmann“ remains. The power-up message contains the name of the loaded script.



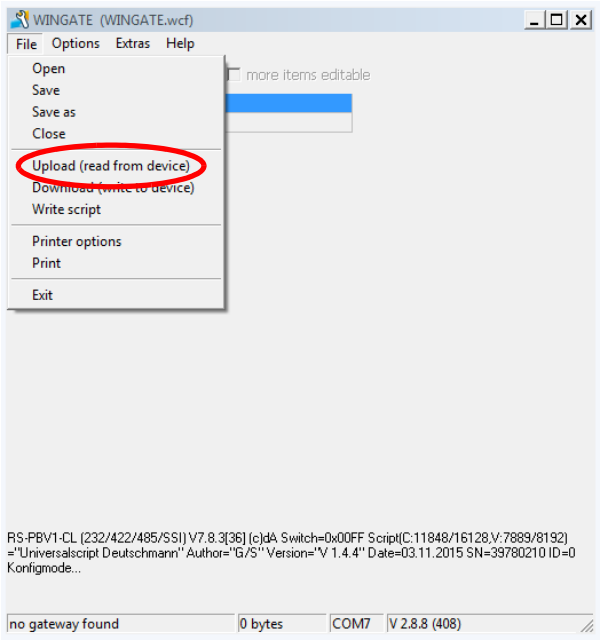
- **Reset with customized script:** The bus-specific parameters are reset to factory setting. **Attention:** The customized script is deleted. Therefor, the script has to be at hand so it can be reloaded. The power-up message contains the name of the loaded script.



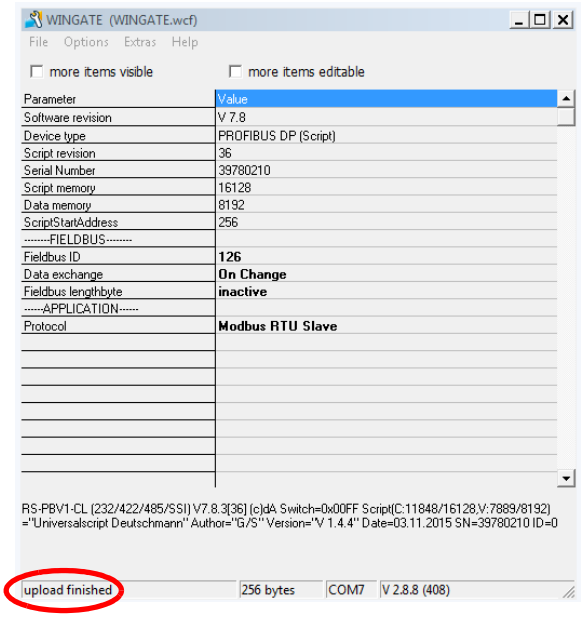
Example-Script: „Template Profibus“

1. The UNIGATE® must be connected via the application interface (RS232) and has to be started in configuration mode. (see chapter 3) WINGATE shows the power-up message of the UNIGATE®.

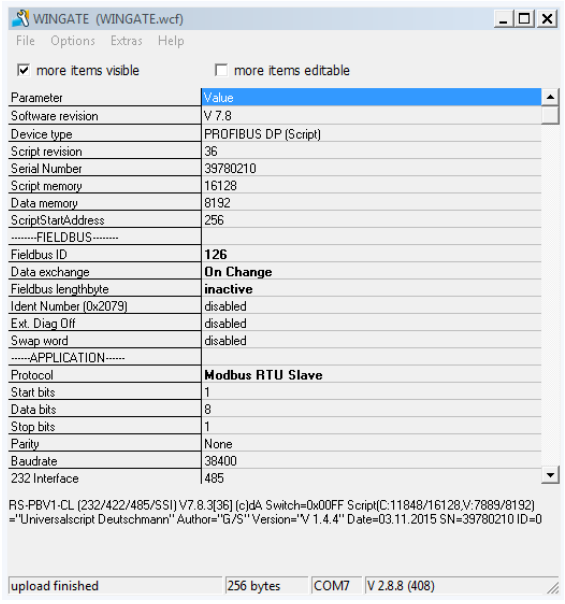
   Before resetting the device an „Upload“ has to be carried out and the device configuration stored. The UNIGATE® can be read out via menu item „File“ -> „Upload (read from device)“.



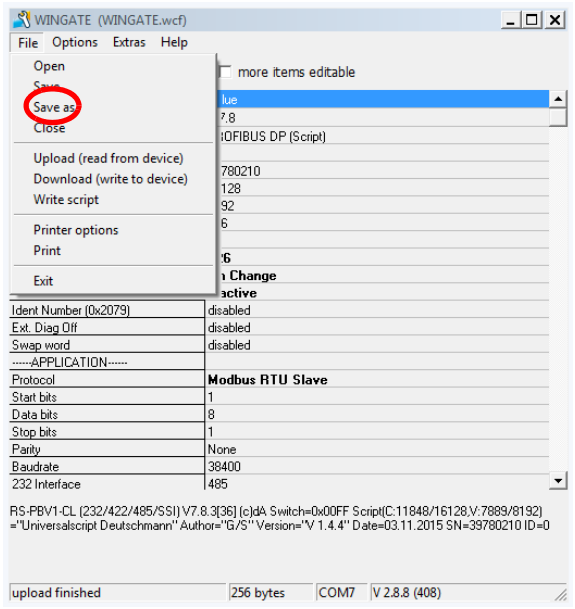
1.1 When the upload is completed, the device configuration is displayed in WINGATE. The message „upload finished“ appears in the status bar.



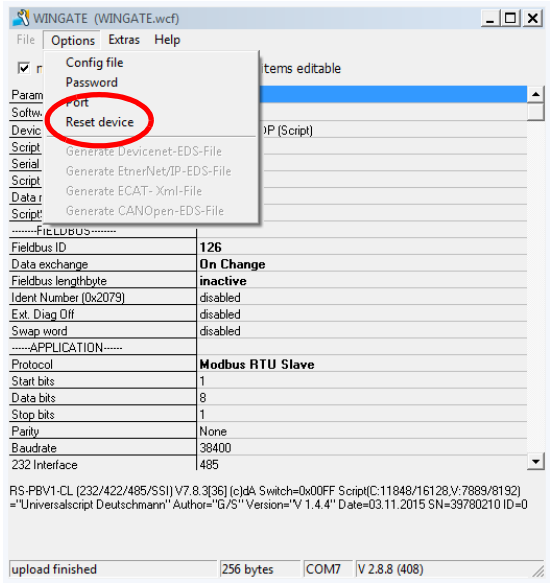
1.2 Additional parameters of the device configuration can be displayed via checking the Checkbox „more items visible“.



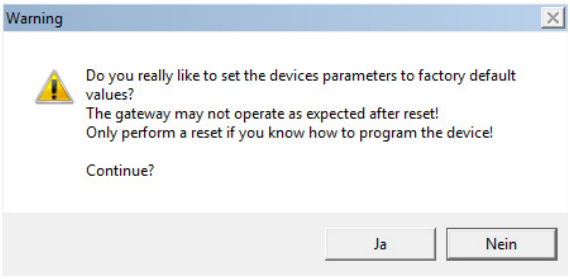
1.3 The device configuration (*.gwc file) can be saved via „File“ -> „Save as“.



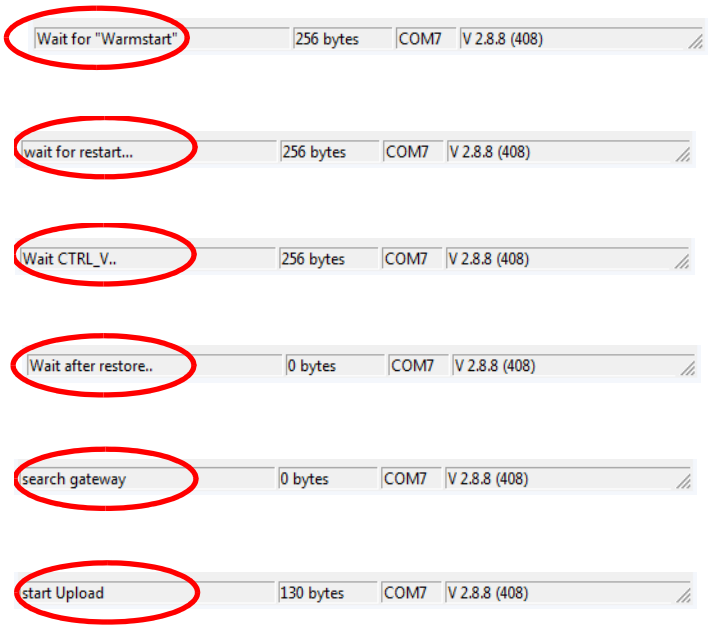
2. Reset to factory setting is performed through „Options“ -> „Reset device“.



A warning message appears. To perform the „Reset device“ confirm with „Yes“.

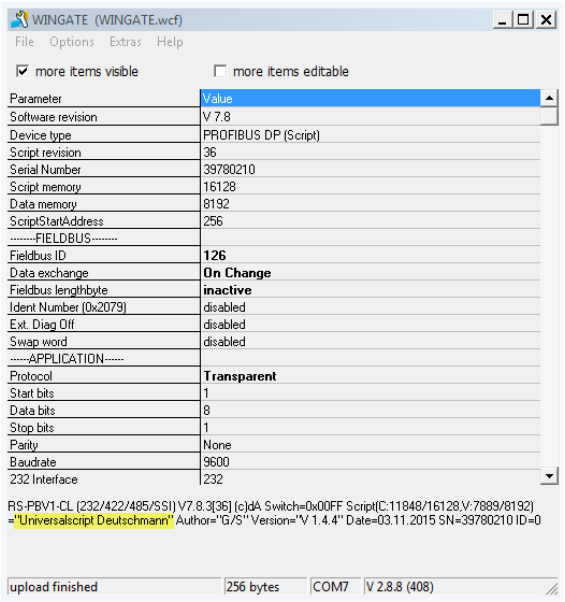


The following messages show up in the WINGATE status bar successively: „Wait for“Warmstart““; „wait for restart…“; „Wait CTRL_V..“; „Wait after restore..“; „search gateway“ and „start Upload“. Afterwards another power-up message of the device appears and an Upload is performed automatically.

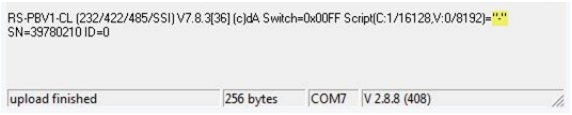


Another power-up message follows and the upload of the device is shown in WINGATE.

As seen in the example below the „Universalscript Deutschmann“ remains even after a „Reset device“, but all parameters are reset to factory setting.



A custom script is deleted.



3 Connecting the UNIGATE® via application interface (RS232)

When wiring the UNIGATE® and the PC COM-Port (RS232-USB-Converter), please pay attention to the following pin assignment.

Attention: Do not connect anything else besides the terminal assignment listed below and the power supply for the UNIGATE®.

3.1 PC COM-Port

UNIGATE®	PC COM-Port (9pol. D-Sub connector)
Rx232 / Rx	COM-Port Pin 3 = Tx
Tx232 / Tx	COM-Port Pin 2 = Rx
APGND / GND / 0V (RS)	COM-Port Pin 5 = GND

Attention: The connection between APGND / GND / 0V (RS) and the GND of the PC COM-Port is mandatory!

3.2 UNIGATE® CL

UNIGATE® CL Application interface RS232
X1 Pin 1 = Rx232
X1 Pin 2 = Tx232
X1 Pin 3 = AP-GND

3.3 UNIGATE® CM

UNIGATE® CM Application interface RS232
X1 Pin 1 = Rx232
X1 Pin 2 = Tx232
X1 Pin 3 = AP-GND

3.4 UNIGATE® EL

UNIGATE® EL Application interface RS232
X1 Pin 1 = Rx232
X1 Pin 2 = Tx232
X1 Pin 3 = AP-GND

3.5 UNIGATE® FC

UNIGATE® FC Application interface RS232
Pin 17 = Rx
Pin 18 = Tx
Pin 12 = GND

3.6 UNIGATE® MB

UNIGATE® MB Application interface RS232
X1 Pin 1 = Rx232
X1 Pin 2 = Tx232
X1 Pin 3 = AP-GND

3.7 UNIGATE® IC

UNIGATE® IC Application interface RS232
Pin 29 = Rx
Pin 30 = Tx
Pin 24 = GND

3.8 UNIGATE® RS

UNIGATE® RS 232/485 Application interface RS232
5. pol screw-type plug connector Pin 3 = Rx
5. pol screw-type plug connector Pin 4 = Tx
5. pol screw-type plug connector Pin 5 = 0V (RS)
Note: The application interface must be set to RS232 via the slide switch.
UNIGATE® RS 232/422 Application interface RS232
9. pol D-Sub Pin 2 = Rx
9. pol D-Sub Pin 3 = Tx
9. pol D-Sub Pin 5 = 0V (RS)
Note: The application interface must be set to RS232 via the slide switch.

3.9 UNIGATE® SC

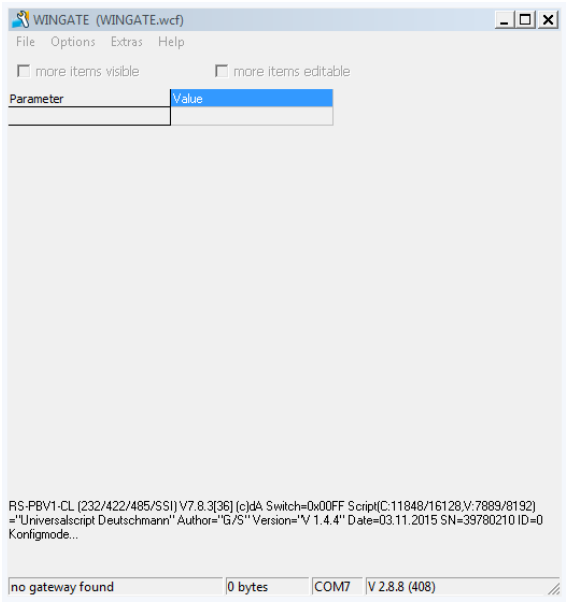
UNIGATE® SC 232/485 Application interface RS232
5. pol screw-type plug connector Pin 3 = Rx
5. pol screw-type plug connector Pin 4 = Tx
5. pol screw-type plug connector Pin 5 = 0V (RS)
Note: The application interface must be set to RS232 via the slide switch.
UNIGATE® SC 232/422 Application interface RS232
9. pol D-Sub Pin 2 = Rx
9. pol D-Sub Pin 3 = Tx
9. pol D-Sub Pin 5 = 0V (RS)
Note: The application interface must be set to RS232 via the slide switch.

3.10 UNIGATE® SC (Option Debug)

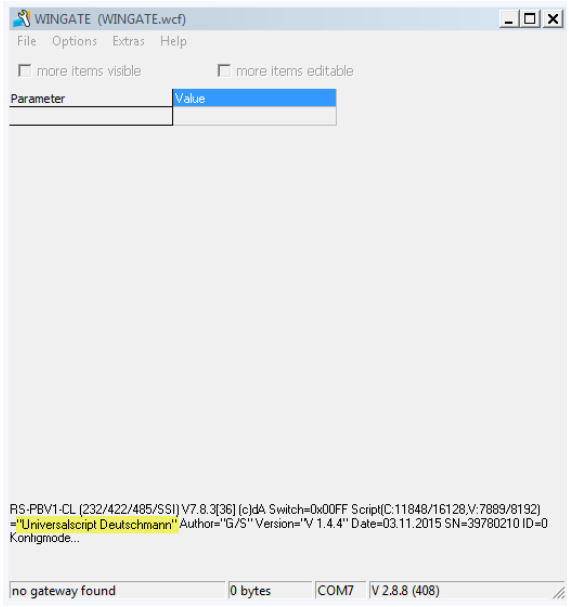
UNIGATE® SC Application interface RS232
9. pol D-Sub Pin 2 = Rx
9. pol D-Sub Pin 3 = Tx
9. pol D-Sub Pin 5 = GND
Note: The application interface must be set to RS232 via the slide switch.

4 Configuration via application interface (RS232)

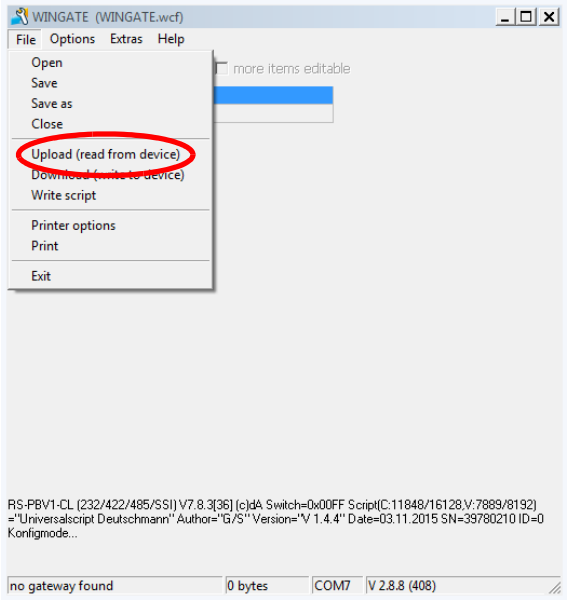
1. The UNIGATE® must be connected via the application interface (RS232) and has to be started in configuration mode. In WINGATE® the following power-up message of the UNIGATE® appears.



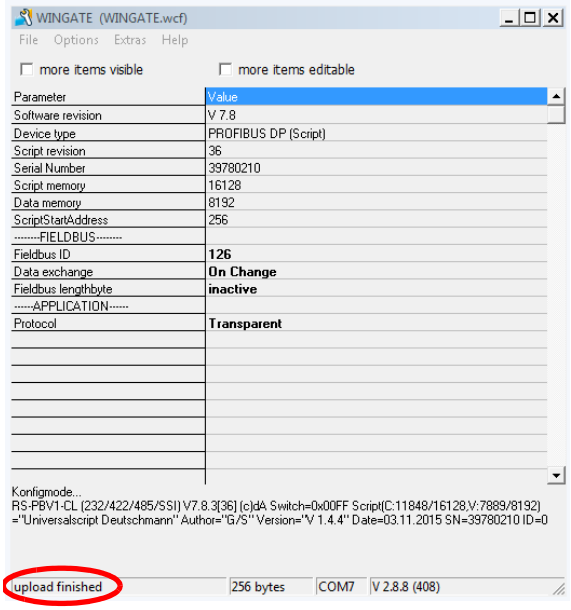
Note: The UNIGATE® can only be fully configured with WINGATE if the corresponding „Universal Script Deutschmann“ is located in the device.
If a custom script is located in the UNIGATE®, only the bus-specific parameters can be configured.



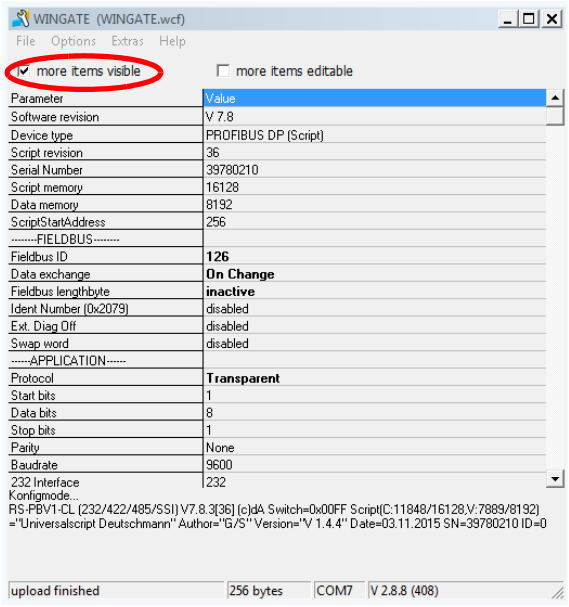
2. The UNIGATE® can be read out via „File“ -> „Upload (read from device)“



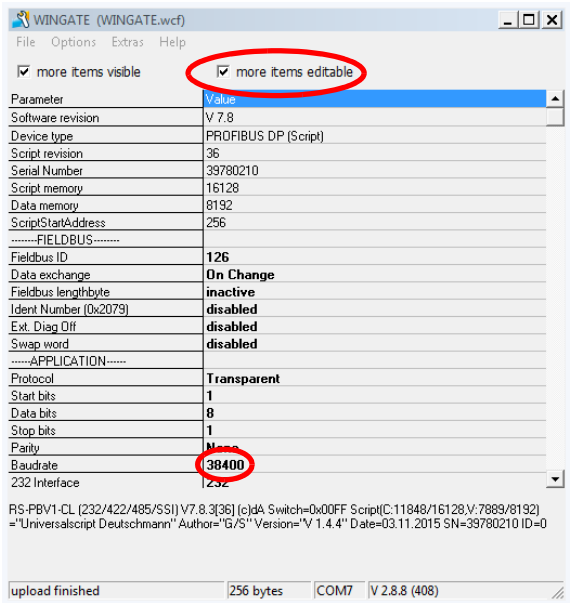
3. The device configuration is displayed in WINGATE when the upload is completed. The status bar shows the message „upload finished“.



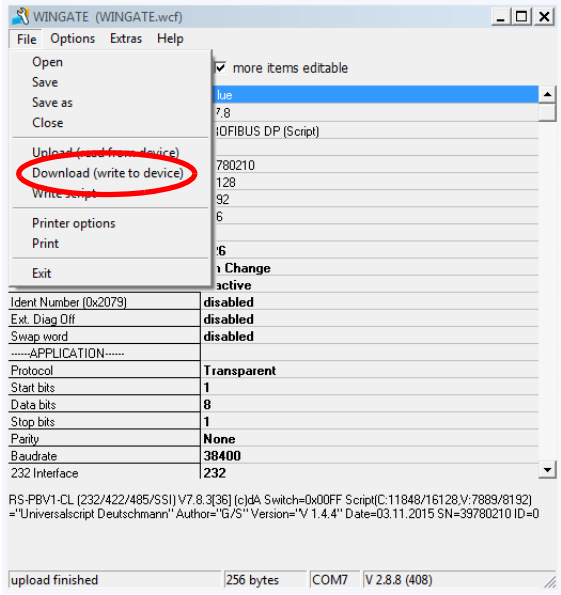
4. Further parameters can be displayed by clicking the checkbox „more items visible“.



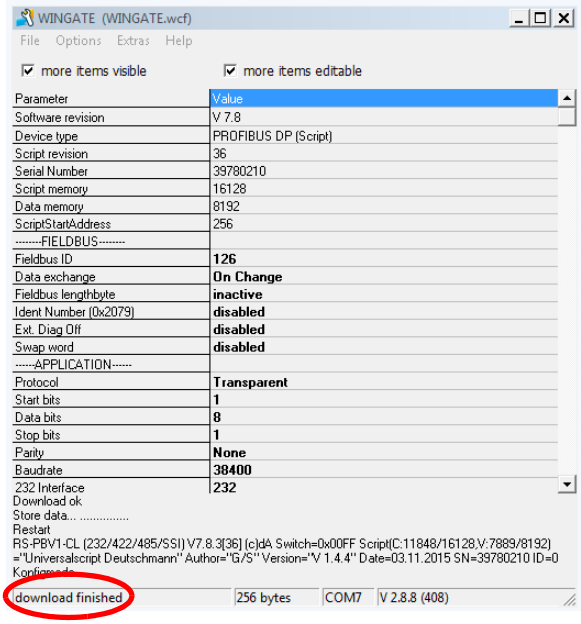
5. „By checking „more items editable“ all modifiable parameters are highlighted. In the picture below the baud rate has been modified from 9600 (factory setting) to 38400.



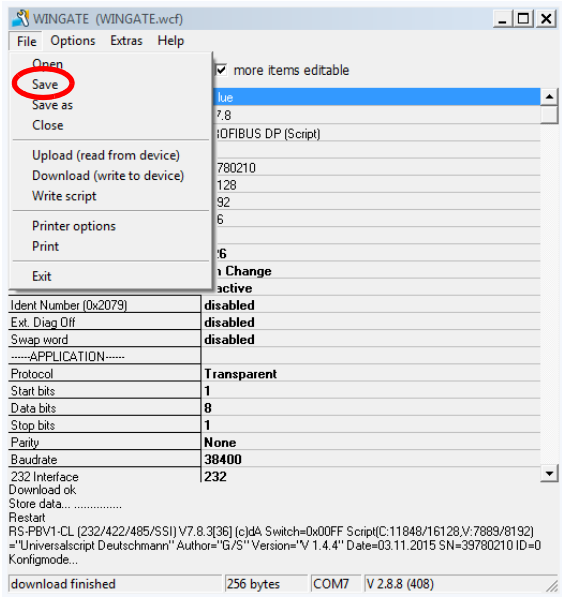
6. The modified configuration can be loaded into the UNIGATE® via „File“ -> „Download (write to device)“.



7. If the download is completed successfully, the device configuration is displayed in WINGATE. The message „download finished“ appears in the status bar.



8. The configuration for the UNIGATE® can be saved and archived with „File“ -> „Save as“



5 Connecting UNIGATE® via Debug interface

When wiring the UNIGATE® and the PC COM-Port, or a RS232-USB-Converter, please pay attention to the following pin assignment.

Attention: Do not connect anything else besides the terminal assignment listed below and the power supply for the UNIGATE®.

5.1 PC COM-Port

UNIGATE®	PC COM-Port (9pol. D-Sub connector)
Rx-Debug / DbgRx	COM-Port Pin 3 = Tx
Tx-Debug / DbgTx	COM-Port Pin 2 = Rx
APGND / GND / 0V (RS)	COM-Port Pin 5 = GND

Attention: The connection between APGND / GND / 0V (RS) and the GND of the PC COM-Port is mandatory!

5.2 UNIGATE® CL

UNIGATE® CL Debug interface
X2 Pin 3 = Rx-Debug
X2 Pin 4 = Tx-Debug
X2 Pin 2 = 0V
Note: Not in conjunction with I/O 8

5.3 UNIGATE® CX

UNIGATE® CX Debug interface 1
X1 Pin 3 = Rx-Debug
X1 Pin 4 = Tx-Debug
X1 Pin 2 = 0V
UNIGATE® CX Debug interface 2
X2 Pin 3 = Rx-Debug
X2 Pin 4 = Tx-Debug
X2 Pin 2 = 0V

5.4 UNIGATE® FC

UNIGATE® FC Debug interface
Pin 16 = DbgRx
Pin 15 = DbgTx
Pin 12 = GND

5.5 UNIGATE® IC

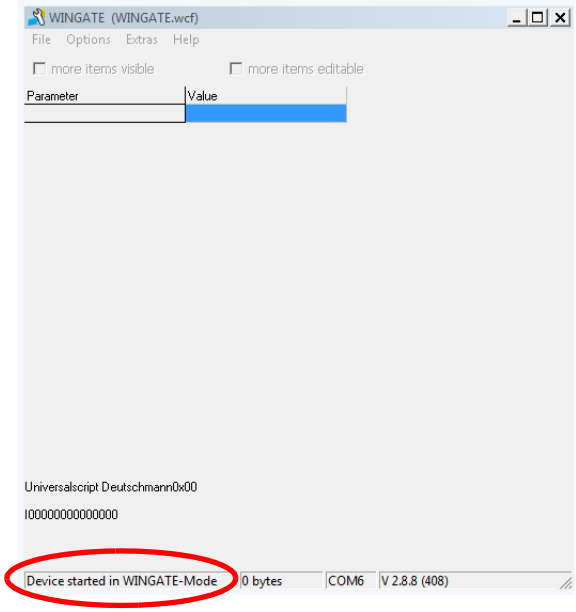
UNIGATE® IC Debug interface
Pin 28 = DbgRx
Pin 27 = DbgTx
Pin 24 = GND

5.6 UNIGATE® SC (Option Debug)

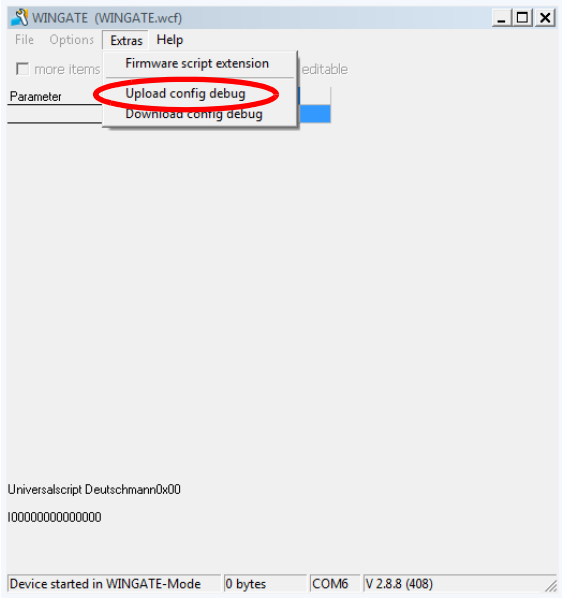
UNIGATE® SC Debug interface
9 pol. D-Sub Pin 9 = RxD
9 pol. D-Sub Pin 4 = TxD
9 pol. D-Sub Pin 5 = GND
Note: The application interface must be set to RS232 via slide switch.

6 Configuration via Debug interface

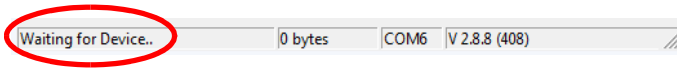
1. The UNIGATE® must be connected via debug interface and started in data exchange mode. The status bar shows the message „Device started in WINGATE-Mode“.

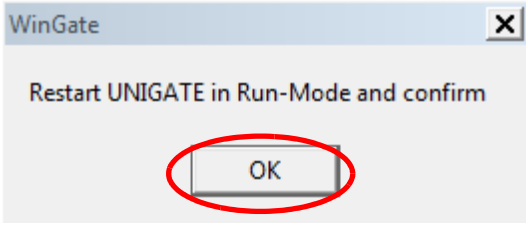


2. Now the configuration of the UNIGATE® can be read out via menu item „Extras“ -> „Upload config debug“.

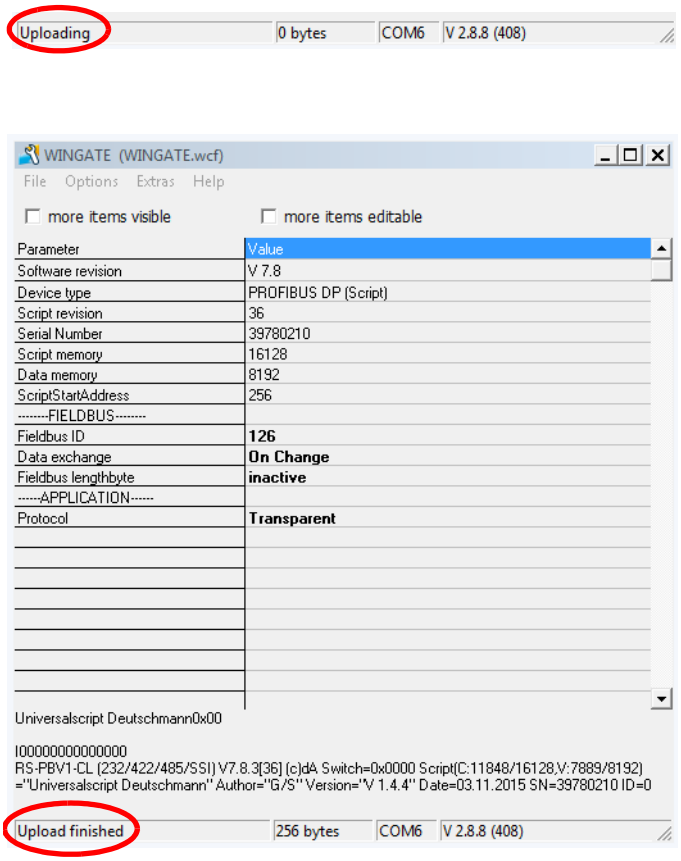


A window with the following note appears: „Restart UNIGATE in Run-Mode and confirm“. In addition the status bar of WINGATE shows „Waiting for Device..“. The UNIGATE® has to be restarted before you can confirm with „OK“. The status bar of WINGATE shows „Device started in WINGATE-Mode“. Only now you can confirm via „OK“.

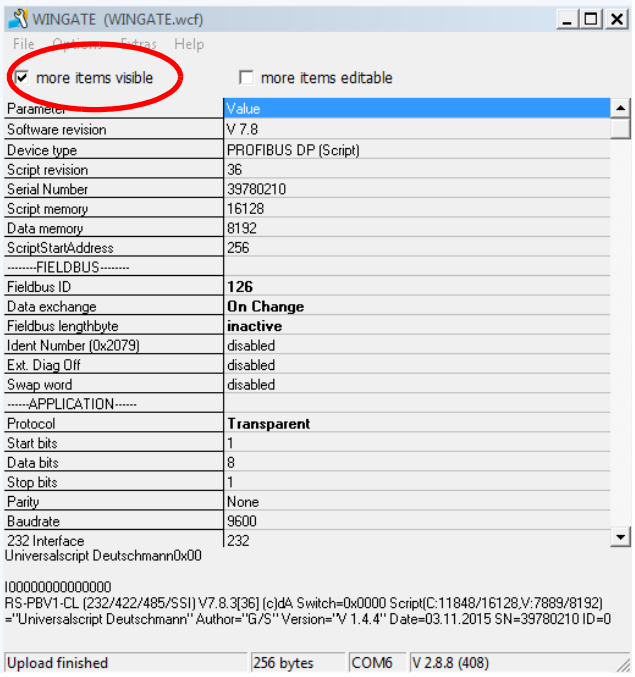




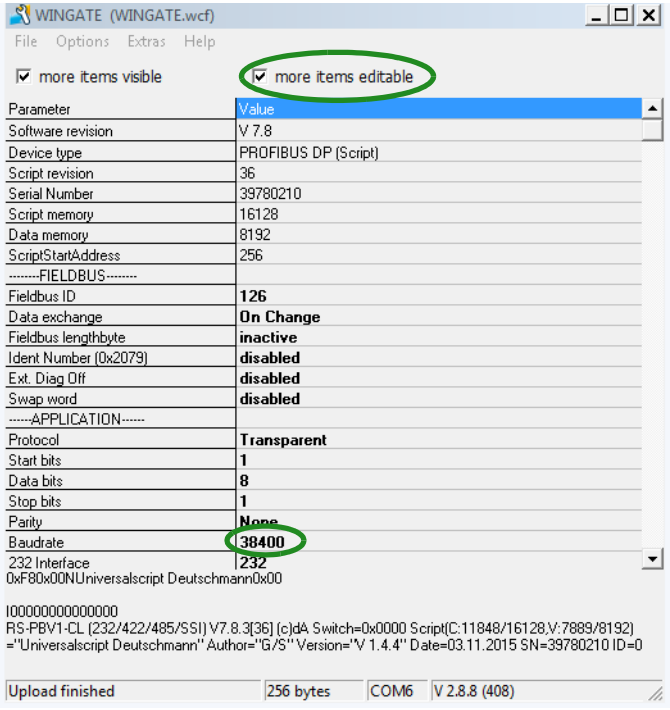
3. Afterwards the upload is performed. The message „Uploading“ appears in the status bar. The download is completed when the message „Upload finished“ is shown.



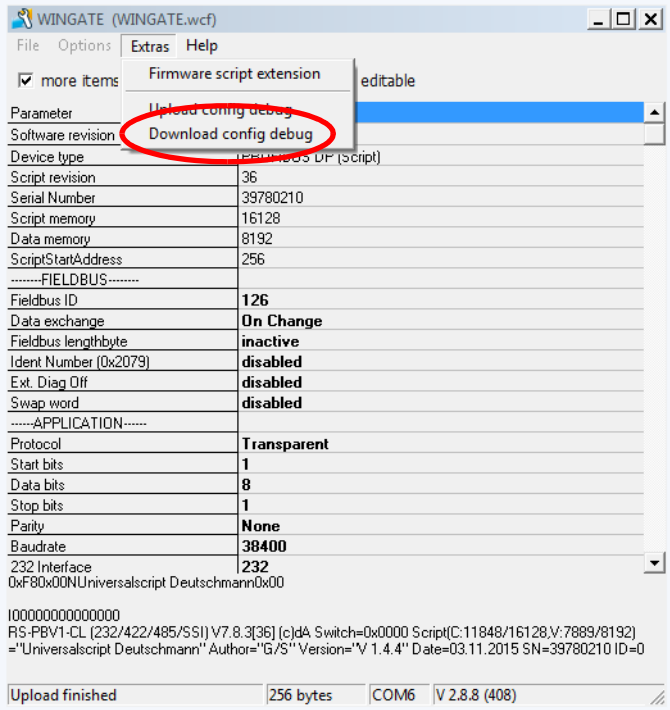
4. Additional parameters of the device configuration can be displayed via checking the checkbox „more items visible“.



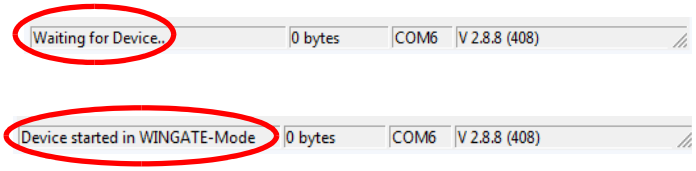
5. With the checkbox „more items editable“ all modifiable parameters are highlighted. In the following picture the baud rate is modified from 9600 (factory setting) to 38400.

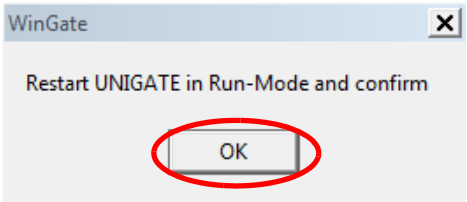


6. The now modified configuration can be loaded into the UNIGATE® via menu item „Extras“ -> „Download config debug“.

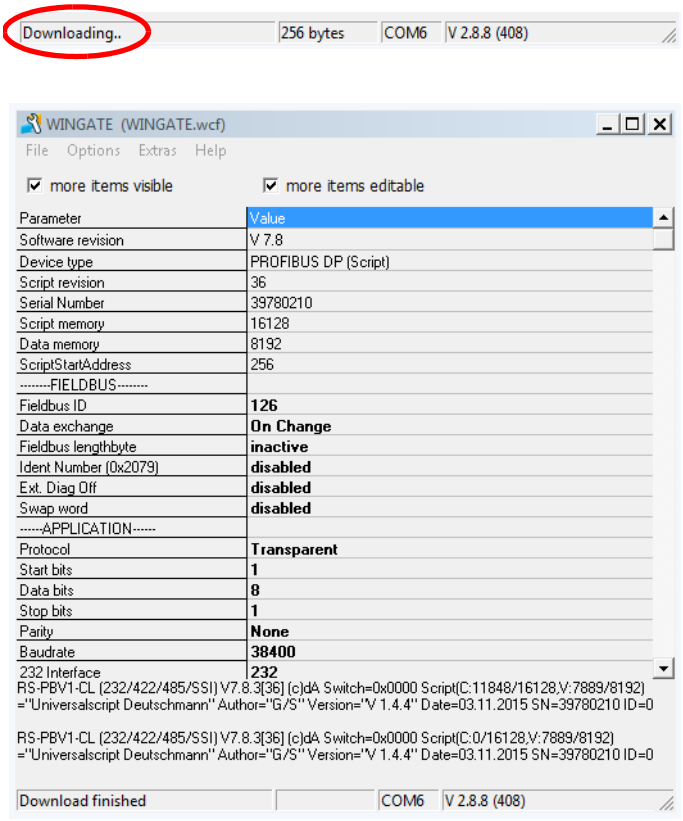


A window with the following note appears: „Restart UNIGATE in Run-Mode and confirm“. In addition the status bar of WINGATE shows „Waiting for Device..“. The UNIGATE® has to be restarted before you can confirm with „OK“. The status bar of WINGATE shows „Device started in WINGATE-Mode“. Only now you can confirm via „OK“.





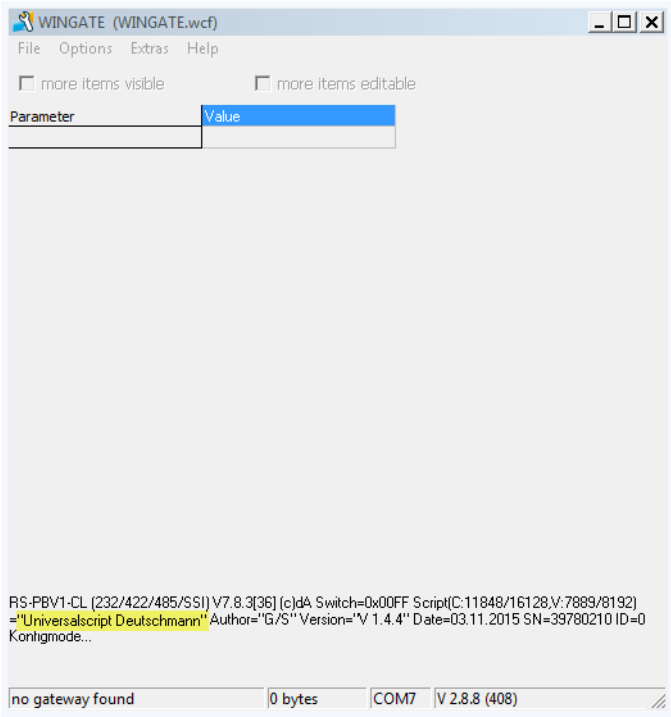
7. Afterwards the download is performed. The status bar of WINGATE shows the message „Downloading…“. After a successfull download the WINGATE status bar shows „Download finished“.



7 Load script

1. The UNIGATE® must be connected via application interface (RS232) and started in configuration mode. The power-up message of the UNIGATE® appears in WINGATE. The power-up message includes the name of the loaded script. In this case the „Universalscript Deutschmann“ is loaded.

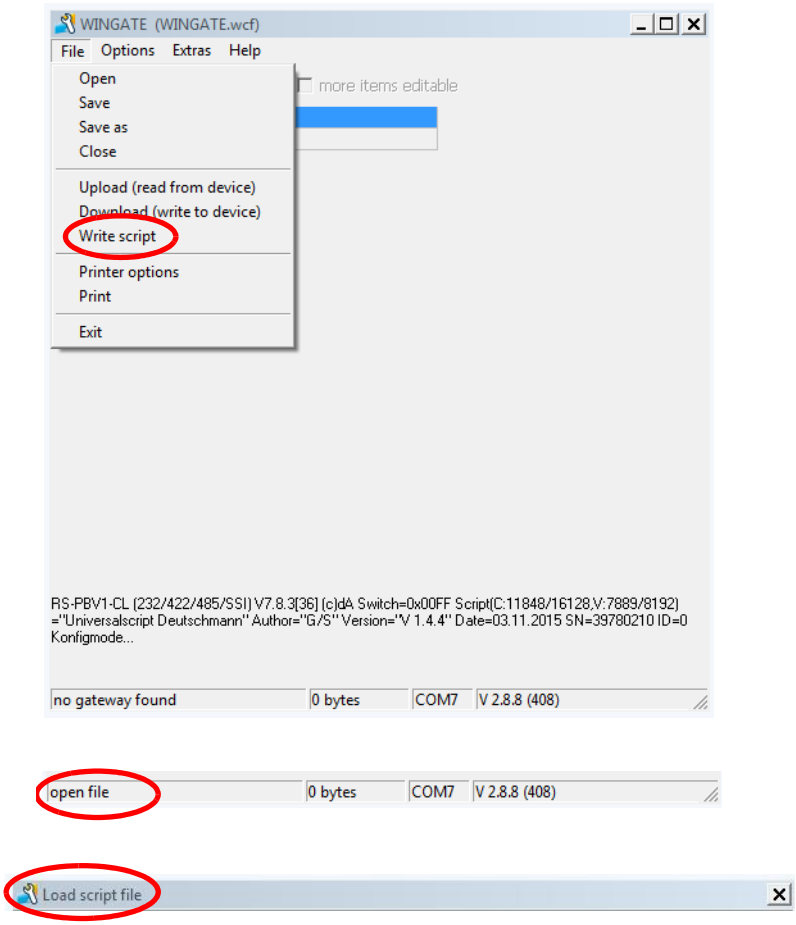
Attention: The UNIGATE® can‘t read out a script.



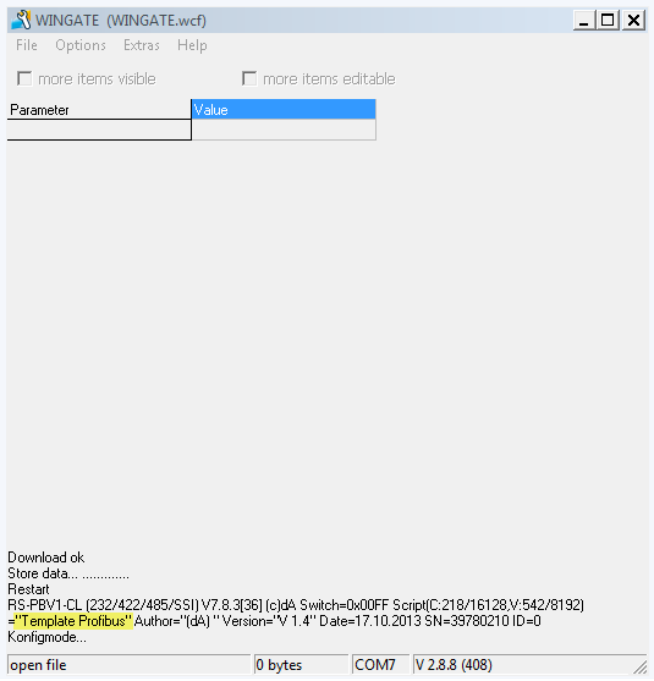
2. A compiled script can be selected and loaded via menu item „File“-> „Write script“ (*.dcs). The message „open file“ appears in the WINGATE status bar. In addition, the window „Load script file“ opens. The corresponding script can be selected and loaded into the UNIGATE® via menu item „Open“.

Note: (*.dcs) stands for **d**eutschmann **c**ompiled **s**cript.

Note: Loading a script can take up to 1 minute, depending on the size of the script.



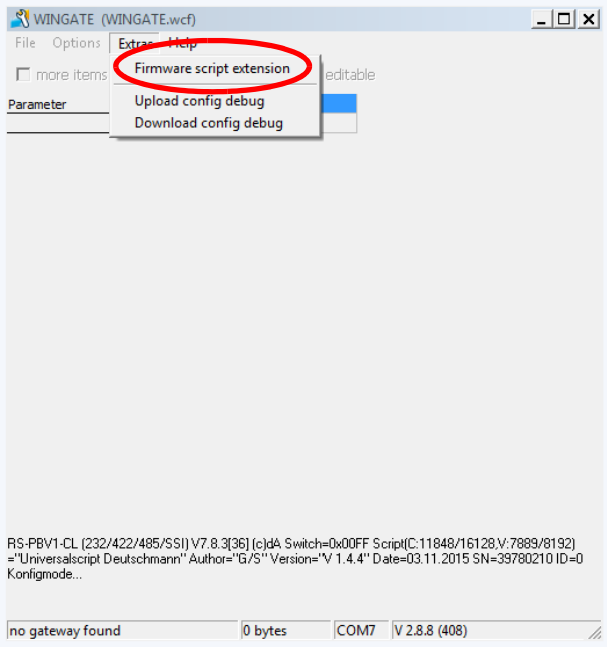
3. Following a power-up message is obtained that also contains the name of the loaded script.



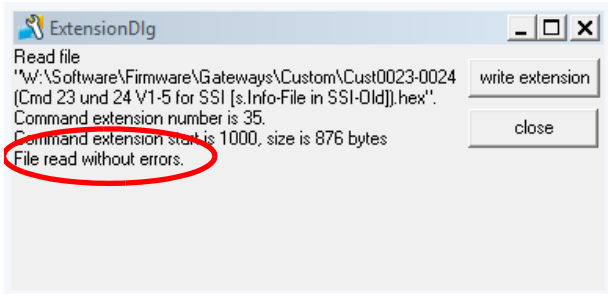
8 Firmware-Script-Extension

1. The UNIGATE® must be connected via the application interface (RS232) and started in configuration mode. The UNIGATE® power-up message appears in WINGATE.

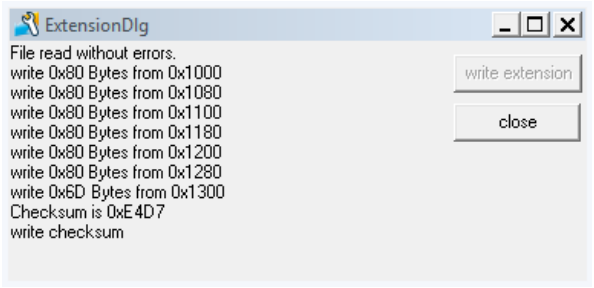
2. A corresponding Firmware-Script-Extension can be loaded via menu item „Extras“ -> „Firmware script extension“. Thereto two windows open. With the window „Extension Dlg“, the Firmware-Script-Extension is loaded into the UNIGATE®. The corresponding Firmware-Script-Extension can be selected with the second window.



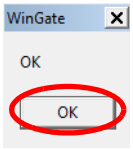
3. After the Firmware-Script-Extension is selected it is tested. Finally, the message „File read without errors“ is shown.

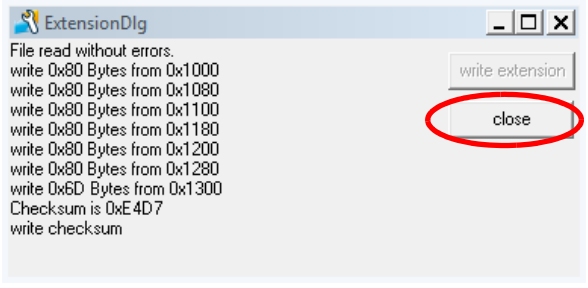


4. The Firmware-Script-Extension can be loaded via „write extension“. Then its loaded into the UNIGATE®.



5. Finally, a window appears with the message „OK“. Close the window by clicking „OK“. Complete the process by clicking „close“ in the „Extension Dlg“ window. Afterwards the Firmware-Extension-Script can be downloaded into the UNIGATE®.



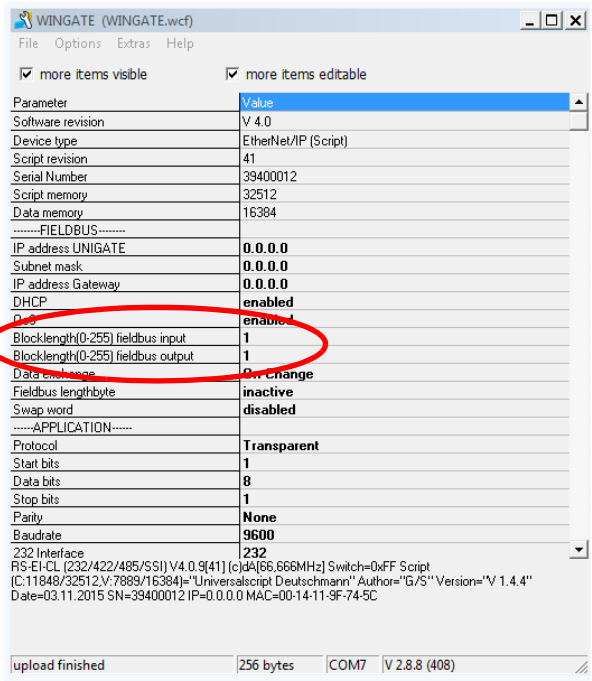


9 Device description files

WINGATE can also create device description files. Prerequisite is that the „Universalscript Deutschmann“ is loaded in the UNIGATE®.

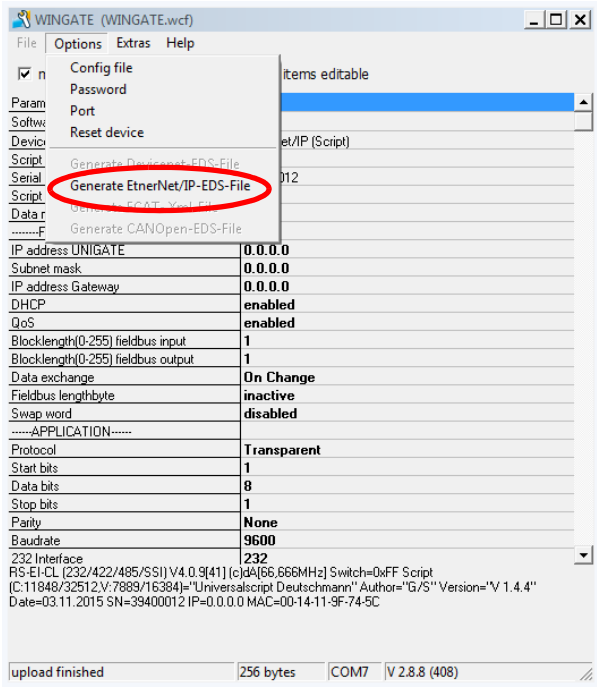
Attention: The with WINGATE created device description file can also be used for UNIGATE® devices with custom scripts. Requirement is that only fieldbus input and fieldbus output length are configured. Furthermore the „Product-Code“ in the device description file has to be compared to the Article-No. (Vxxx) of the used UNIGATE®. They have to be identical.

1. Carry out an upload from the device via menu item „File“ -> „Upload (read from device)“. Then the parameters for fieldbus input data lengths and fieldbus output data lengths have to be set.



Example: UNIGATE® CL EtherNet/IP

2. Following this, a device description file can be created via menu item „Options“ -> „Generate…“

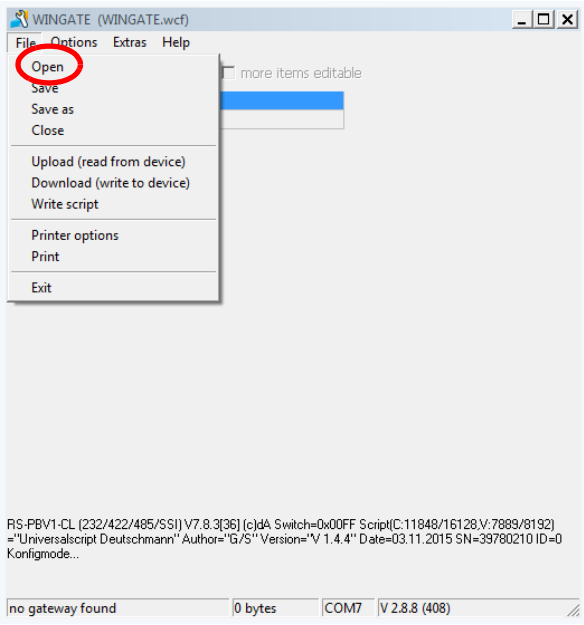


For the values to match the earlier created device description file, the modified device configuration must be loaded into the UNIGATE® via „File“ -> „Download (write to device)“.

10 Open device configuration

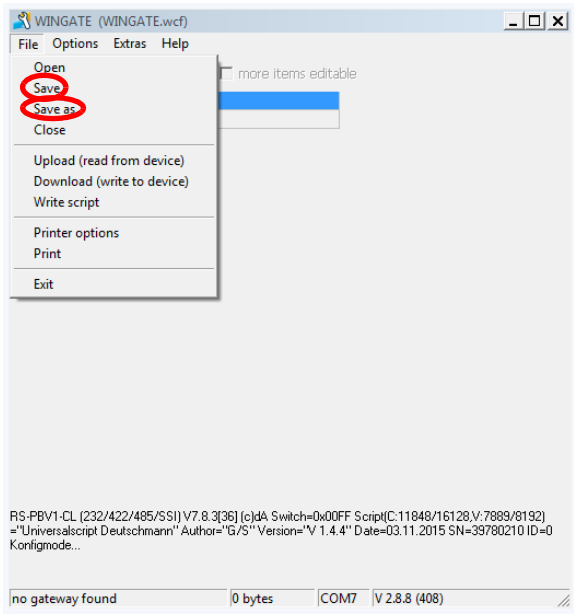
1. A device configuration (*.gwc) can be opened via „File“ -> „Open“.

   Note: (*.gwc) stands for **g**ate**w**ay **c**onfiguration.



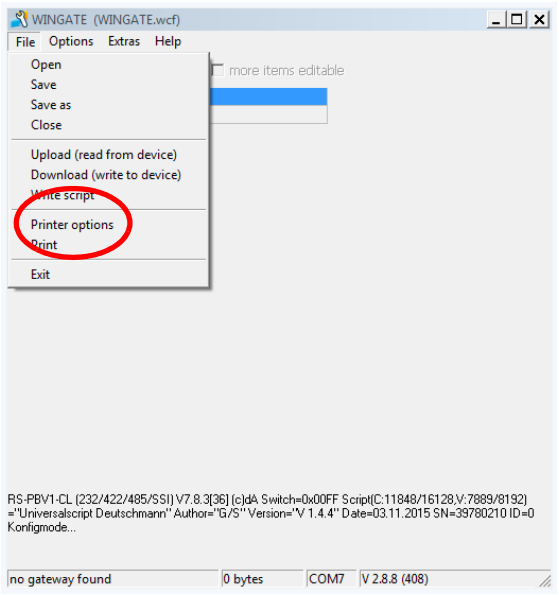
11 Secure device configuration

1. The device configuration can be saved via menu item „File“ -> „Save“ resp. „Save as“.

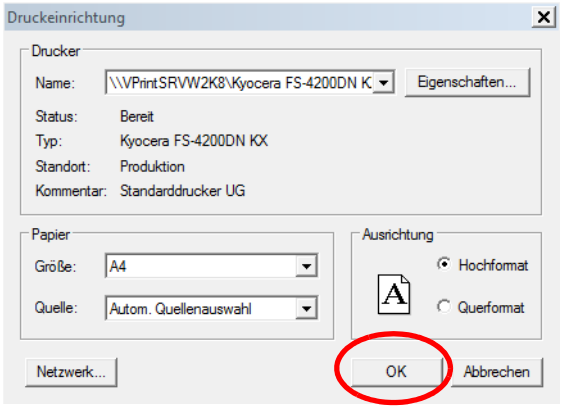


12 Print device configuration

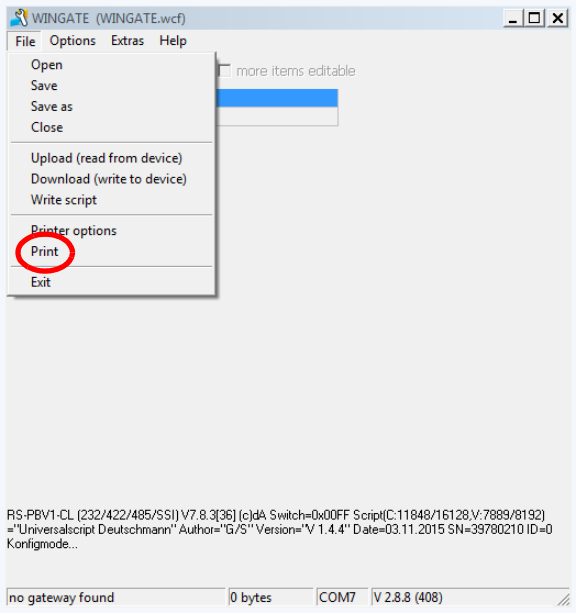
1. The printer can be selected via „File“ -> „Printer options“.



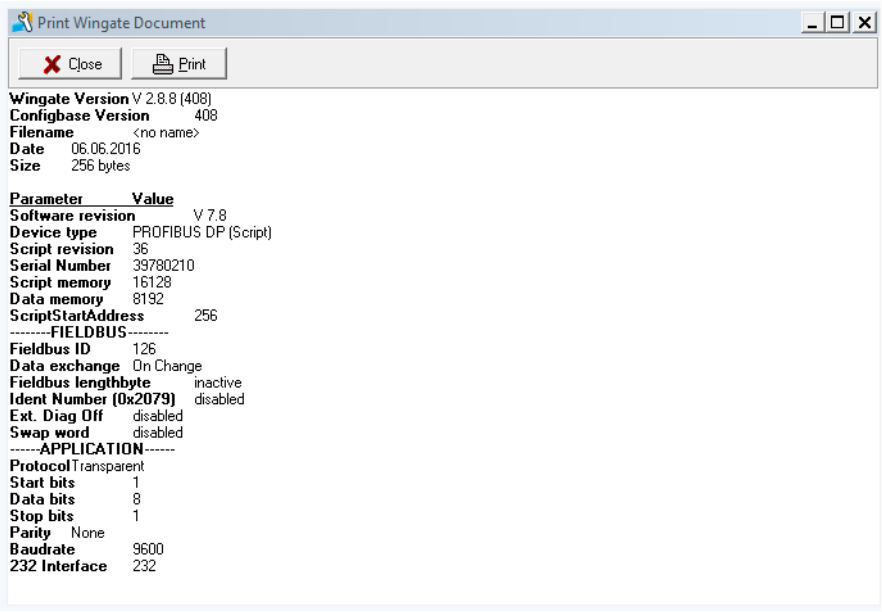
2. Save the setting via „OK“.



3. Then execute via „Print“.

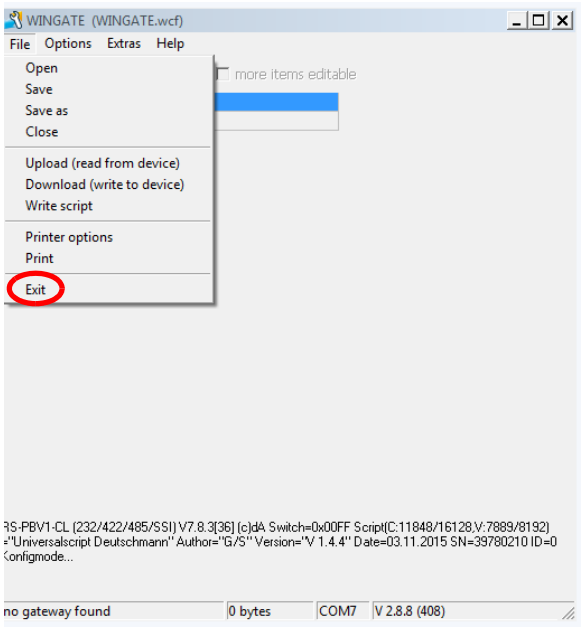


4. Before the printing starts a window with the corresponding parameters of the device configuration. Printing is initiated via „Print“ and can be repeated as often as necessary.



13 Closing WINGATE

1. Close WINGATE via „File“ -> „Exit“.



14 Servicing

Should questions arise that are not covered in this manual you can find further information in our

- FAQ/Wiki area on our homepage www.deutschmann.com or directly in our Wiki on www.wiki.deutschmann.de

If your questions are still unanswered please contact us directly.

Please note down the following information before calling:
- Device designation
- Serial number (S/N)
- Article number
- Error number and error description

Your request will be recorded in the Support center and will be processed by our Support Team as quickly as possible (Usually in 1 working day, rarely more than 3 working days.).

Technical Support hours are as follows:
Monday to Thursday from 8 am to midday and from 1 pm to 4 pm, Friday from 8 am to midday. (CET)

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Technical support	+49 6434 9433-33
Fax sales department	+49 6434 9433-40
Fax technical support	+49 6434 9433-44
E-mail technical support	support@deutschmann.de

15 Returning a device

If you return a device, we require as comprehensive a fault/error description as possible. We require the following information in particular:

- What error number was displayed?
- What is the supply voltage (±0.5 V) with Gateway connected?
- What were you last doing or what last happened on the device (programming, error on power-up,...)?

The more precise information a fault/error description you provide, the more exactly we will be able to pinpoint the possible causes.

15.1 Downloading PC software

You can download current information and software free of charge from our Internet server.
http://www.deutschmann.com