

# Trovan GR-250 High Performance Reader Communications Utility

## Introduction

The GR-250 Reader is designed to read Trovan Unique™ RFID (radio frequency identification) transponders. Details of Reader operation can be found in the Trovan GR-250 Hand Held Reader User Manual (<http://vantrö.biz/GR-250%20User%20Manual.pdf>). The Reader is designed to communicate with an external computer via its RS-232 interface. This interface allows the external computer to transfer transponder ID information to and from the Reader, as well as control reader operating parameters. A complete description of this interface can be found in the GR-250 Computer Interface Manual (<http://vantrö.biz/GR-250%20Computer%20Interface%20Manual.pdf>), and is also accessible in the GR-250 Reader Utility Program by selecting “Manual”.

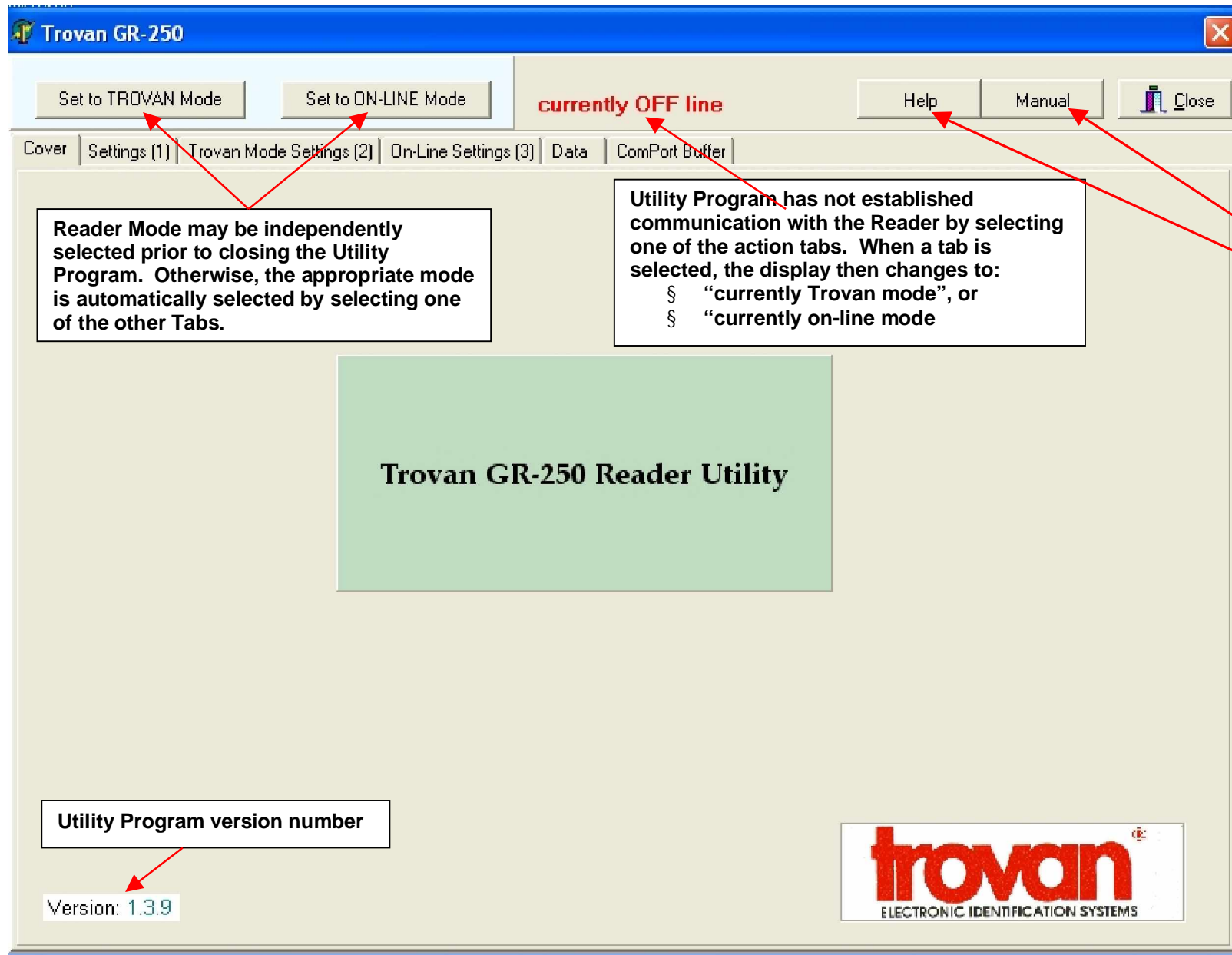
## GR-250 Utility Program

The Trovan GR-250 Reader Utility Program provides a user-friendly application to facilitate communication between the GR-250 Reader and a PC by automating various commands, providing convenient data editing, and formatting and transferring data. This document is intended to provide a familiarization with the use of the Utility Program. To fully understand the Utility Program, it is recommended that the information contained in the GR-250 Computer Interface Manual be carefully reviewed.

## Connectivity

The GR-250 Reader should be connected to the PC with the CAB-250 Computer Cable (PC RS-232 DB9 connector) or the CAB-250USB (PC USB connector). Alternatively, if your reader is Bluetooth enabled (model GR-250BT), the reader may be connected to the PC via wireless Bluetooth.

# GR-250 Utility Program – Opening Screen



# GR-250 Utility Program – Settings (1)

**Trovan GR-250**

Set to TROVAN Mode    Set to ON-LINE Mode    **currently Trovan mode**    Help    Manual    Close

Cover    Settings (1)    Trovan Mode Settings (2)    On-Line Settings (3)    Data    ComPort Buffer

**Port**  
1

**Program BAUD rate**  
☐ 300    ☐ 2400    ☒ 9600  
☐ 1200    ☐ 4800    ☐ 19200

**Reader BAUD rate**  
☐ 300    ☐ 2400    ☒ 9600  
☐ 1200    ☐ 4800    ☐ 19200    Set    Read

**Date separator** /    **Date Format**  
☒ DD/MM/YYYY    ☐ MM/DD/YYYY

**Current on-line settings**  
[Text Area]    Clear Memo    Read

**Save Mode Setting**  
☐ Save Mode ON    ☐ Save Mode OFF    Set

**Seek Mode Setting**  
☐ Seek Mode ON    ☐ Seek Mode OFF    Read

**Display Setting**  
☐ Hex Display    ☐ Decimal Display    Set    Read

**Trigger Status**  
☐ Trigger ON    ☐ Trigger OFF    Read

**'Live' enquiry to reader**    Read

**PC Date/Time**    Set    Read

**User defined Date/Time**    Set

**Date** [Dropdown]    **Time** [Dropdown]    Use 24hr clock and leading zeros where appropriate HH:MM:SS

**LEDs**  
☒ No LEDs    ☐ Green  
☐ Red    ☐ Red +Green    Set

**Tone**  
☒ Quiet    ☐ OK  
☐ Key    ☐ NO

**'Live' commands to reader**

Select available comport with settings: 9600, 8, None, 1, Xon/Xoff

9600

Select preferred Date Format

Select "Read" to see current Reader Communication Settings

Select "Read" to check current settings. Make desired changes, & select "Set".

Select "Read" to test trigger.

Select "Read" to display Reader Date & Time. Select "Set" to set to PC's date/time

Set Date & Time into Reader.

These are default settings. Change only temporarily to test LEDs & Speaker.

# GR-250 Utility Program – Settings (1)

## (Example settings)

**Trovan GR-250**

Set to TROVAN Mode    Set to ON-LINE Mode    **currently Trovan mode**    Help    Manual    Close

Cover   Settings (1)   Trovan Mode Settings (2)   On-Line Settings (3)   Data   ComPort Buffer

**Port**  
1

**Program BAUD rate**  
☐ 300   ☐ 2400   ☒ 9600  
☐ 1200   ☐ 4800   ☐ 19200

**Reader BAUD rate**  
☐ 300   ☐ 2400   ☒ 9600  
☐ 1200   ☐ 4800   ☐ 19200    Set    Read

**Date separator** /    **Date Format**  
☒ DD/MM/YYYY   ☐ MM/DD/YYYY

**Current on-line settings**  
RTS/CTS=>Disabled  
ENQ=>Disabled  
ACK/NAK=>Disabled  
Scan & Store=>Disabled  
Check Digit=>Disabled  
No Decode Character=>Disabled  
Bidirectional Commands=>Disabled  
Baud Rate=>9600  
Prefix=>  
Suffix=>0D.  
No Decode=>  
ADK  
Clear Memo    Read

**Save Mode Setting**  
☒ Save Mode ON   ☐ Save Mode OFF    Set

**Seek Mode Setting**  
☐ Seek Mode ON   ☒ Seek Mode OFF    Read

**Display Setting**  
☒ Hex Display   ☐ Decimal Display    Set    Read

**Trigger Status**  
☐ Trigger ON   ☒ Trigger OFF    Read

**'Live' enquiry to reader**  
PC Date/Time    15/12/2009 Tuesday    Set  
14:23:02    Read

**User defined Date/Time**    Set  
Date    Time    Use 24hr clock and leading zeros where appropriate  
HH:MM:SS

**LEDs**  
☒ No LEDs   ☐ Green    Set  
☐ Red   ☐ Red +Green

**Tone**  
☒ Quiet   ☐ OK  
☐ Key   ☐ NO

**'Live' commands to reader**

These are the default settings in the GR-250 Reader. Do not change without consulting with the Manufacturer Vantro Systems.

## GR-250 Utility Program – Trovan Mode Settings (2)

By selecting “Read” with transponder in Reader field, ID # will be displayed. If not in field, “No Read” is displayed.

Read current settings, or set new ones.

Clears all contents of Lot memory in about 30 seconds

Type in information & select “Set”. Tests the Reader LCD.

Select “Check” to display the Reader Software Version.

**Trovan GR-250**

Set to TROVAN Mode    Set to ON-LINE Mode    **currently Trovan mode**    Help    Manual    Close

Cover | Settings (1) | Trovan Mode Settings (2) | On-Line Settings (3) | Data | ComPort Buffer

**Read transponder**    Read    To clipboard    Paste Clipboard

Current KeyLot No    01...FE    Set    Read

Current Lot No    01...FE    Set    Read

Clear Lots    Clear

Free Memory    Check

Top line caption    Set

Bottom line caption    Set

Software Version    Check

Dump All Memory    Dump Lot Memory    01...FE

All ID #'s stored in all Lots may be displayed, or just those in a selected Lot.

These Data may then be transferred to the PC Clipboard.

To clipboard    Clear Memo

All functions on button coloured background relate to Trovan' mode only, and are activated/deactivated in the 'Trovan' mode.

Check available free Lot memory. After clearing, the amount is 3072.

After transponder # is read and the ID displayed, select “To Clipboard” to place on PC clipboard. Subsequently, select “Paste Clipboard” to place the number on the Memo above.

## GR-250 Utility Program – Trovan Mode Settings (2) (Example 1 – After Selecting “Read”)

**Trovan GR-250** [X]

Set to TROVAN Mode   Set to ON-LINE Mode   **currently Trovan mode**   Help   Manual   [Close]




Cover | Settings (1) | Trovan Mode Settings (2) | On-Line Settings (3) | Data | ComPort Buffer

<b>Read transponder</b>		Read	
<b>0000061AC8</b>		To clipboard	Paste Clipboard
Current KeyLot No	<b>02</b> 01...FE	Set	Read
Current Lot No	<b>01</b> 01...FE	Set	Read
Clear Lots	Clear		
Free Memory	<b>3051 free</b>	Check	
Top line caption		Set	
Bottom line caption		Set	
Software Version	<b>GR250V16</b>	Check	
<i>All functions on button coloured background relate to Trovan' mode only, and are activated/deactivated in the 'Trovan' mode.</i>			

Dump All Memory

Dump Lot Memory

01...FE



To clipboard

Clear Memo



## GR-250 Utility Program – Trovan Mode Settings (2)

(Example 2 – After Selecting “To Clipboard” & “Paste Clipboard”)

The screenshot shows the Trovan GR-250 utility program window. The title bar reads "Trovan GR-250". The main menu bar includes "Set to TROVAN Mode", "Set to ON-LINE Mode", "currently Trovan mode" (highlighted in red), "Help", "Manual", and "Close". Below the menu bar is a tabbed interface with tabs for "Cover", "Settings (1)", "Trovan Mode Settings (2)", "On-Line Settings (3)", "Data", and "ComPort Buffer". The "Trovan Mode Settings (2)" tab is active.

The left sidebar contains several settings:

- Read transponder:** A text box displays "0000061AC8". To its right are "Read", "To clipboard", and "Paste Clipboard" buttons. The "Paste Clipboard" button is highlighted with a dotted border.
- Current KeyLot No:** A text box displays "02" followed by "01...FE". To its right are "Set" and "Read" buttons.
- Current Lot No:** A text box displays "01" followed by "01...FE". To its right are "Set" and "Read" buttons.
- Clear Lots:** A "Clear" button.
- Free Memory:** A text box displays "3051 free". To its right is a "Check" button.
- Top line caption:** An empty text box with a "Set" button.
- Bottom line caption:** An empty text box with a "Set" button.
- Software Version:** A text box displays "GR250V16". To its right is a "Check" button.

At the bottom of the sidebar, a red text message reads: "All functions on button coloured background relate to Trovan' mode only, and are activated/deactivated in the 'Trovan' mode."

The main area on the right is a large text box displaying "0000061AC8". Above this text box are two buttons: "Dump All Memory" and "Dump Lot Memory". To the right of the "Dump Lot Memory" button is a text box displaying "01...FE".

At the bottom of the main area, there is a graphic of two Trovan discs and a yellow pencil. To the right of this graphic are two buttons: "To clipboard" and "Clear Memo".

## GR-250 Utility Program – Trovan Mode Settings (2) (Example 3 – After “Dump All Memory”)

**Trovan GR-250**

Set to TROVAN Mode   Set to ON-LINE Mode   **currently Trovan mode**   Help   Manual   Close

Cover   Settings (1)   Trovan Mode Settings (2)   On-Line Settings (3)   Data   ComPort Buffer

**Read transponder**   Read   To clipboard   Paste Clipboard

Current KeyLot No **02** 01...FE   Set   Read

Current Lot No **01** 01...FE   Set   Read

Clear Lots   Clear

Free Memory **3051 free**   Check

Top line caption   Set

Bottom line caption   Set

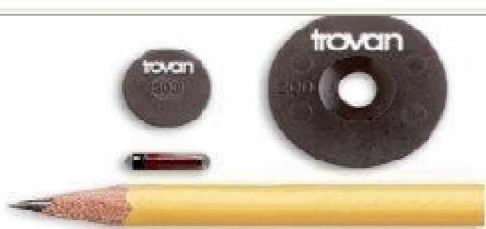
Software Version **GR250V16**   Check

All functions on button coloured background relate to Trovan' mode only, and are activated/deactivated in the 'Trovan' mode.

Dump All Memory   Dump Lot Memory   01...FE

01 000015F87A 13/12/2009 Sunday 18:05:28:68  
01 0001DAD0F3 13/12/2009 Sunday 18:09:12:55  
01 000015C726 14/12/2009 Monday 10:56:19:11  
01 000024492B 14/12/2009 Monday 10:56:34:18  
01 0000251E2E 14/12/2009 Monday 10:56:39:83  
01 000015BD29 14/12/2009 Monday 10:56:46:38  
01 00001F4B27 14/12/2009 Monday 10:56:52:43  
01 0000061617 14/12/2009 Monday 10:56:58:02  
01 0000625D1D 14/12/2009 Monday 10:57:03:66  
01 0000061AC8 14/12/2009 Monday 10:57:11:57  
01 0000AF57E6 14/12/2009 Monday 11:40:08:92  
01 0000177303 14/12/2009 Monday 11:40:26:51  
01 00002538F2 14/12/2009 Monday 11:41:28:88  
01 000070D124 14/12/2009 Monday 11:43:03:57  
01 00062F03F6 14/12/2009 Monday 11:44:06:12  
01 00012E8AE7 14/12/2009 Monday 11:44:11:87  
01 00002215C6 14/12/2009 Monday 11:44:21:15  
01 00012E7DA0 14/12/2009 Monday 11:44:30:67  
01 0001360ED5 14/12/2009 Monday 11:44:39:82  
01 000025A032 14/12/2009 Monday 11:44:50:43  
Download completed

To clipboard   Clear Memo





## GR-250 Utility Program – Trovan Mode Settings (2)

(Example 4 – After “Clear Lots” & “Check” Free Memory)

The screenshot shows the Trovan GR-250 utility program window. The title bar reads "Trovan GR-250". The interface has a blue header bar with a close button (X) on the right. Below the header, there are two buttons: "Set to TROVAN Mode" and "Set to ON-LINE Mode". The status "currently Trovan mode" is displayed in red. To the right of the status are buttons for "Help", "Manual", and "Close". Below this is a tabbed menu with "Cover", "Settings (1)", "Trovan Mode Settings (2)", "On-Line Settings (3)", "Data", and "ComPort Buffer". The "Trovan Mode Settings (2)" tab is selected. The main area is divided into two columns. The left column contains several sections: "Read transponder" with a text input field, "Read" button, "To clipboard" button, and "Paste Clipboard" button; "Current KeyLot No" with a red "02" in a box, "01...FE" text, "Set" button, and "Read" button; "Current Lot No" with a red "01" in a box, "01...FE" text, "Set" button, and "Read" button; "Clear Lots" with "Lots cleared" in blue, "Clear" button; "Free Memory" with "3072 free" in blue, "Check" button; "Top line caption" with a text input field and "Set" button; "Bottom line caption" with a text input field and "Set" button; "Software Version" with "GR250V16" in blue, "Check" button; and a red note at the bottom: "All functions on button coloured background relate to Trovan' mode only, and are activated/deactivated in the 'Trovan' mode." The right column has a light blue background. It contains "Dump All Memory" and "Dump Lot Memory" buttons, followed by a text input field with "01...FE". Below this is a large empty text area with scrollbars. At the bottom of the right column, there is a graphic of two Trovan discs and a pencil, and buttons for "To clipboard" and "Clear Memo".

**Trovan GR-250**

Set to TROVAN Mode Set to ON-LINE Mode **currently Trovan mode** Help Manual Close

Cover Settings (1) Trovan Mode Settings (2) On-Line Settings (3) Data ComPort Buffer

**Read transponder** Read  
[Text Field] To clipboard Paste Clipboard

Current KeyLot No **02** 01...FE Set Read

Current Lot No **01** 01...FE Set Read

Clear Lots **Lots cleared** Clear

Free Memory **3072 free** Check

Top line caption [Text Field] Set

Bottom line caption [Text Field] Set

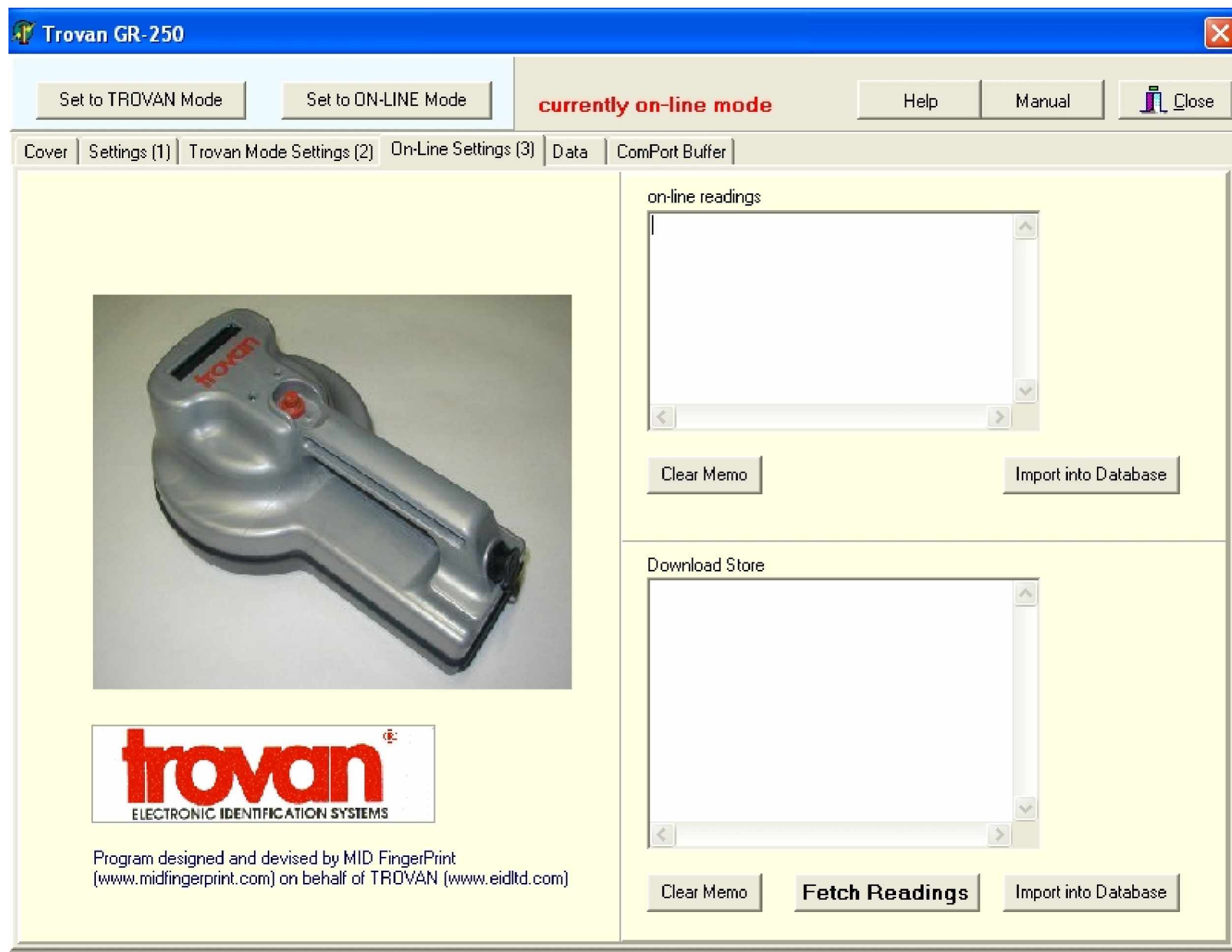
Software Version **GR250V16** Check

All functions on button coloured background relate to Trovan' mode only, and are activated/deactivated in the 'Trovan' mode.

Dump All Memory Dump Lot Memory 01...FE

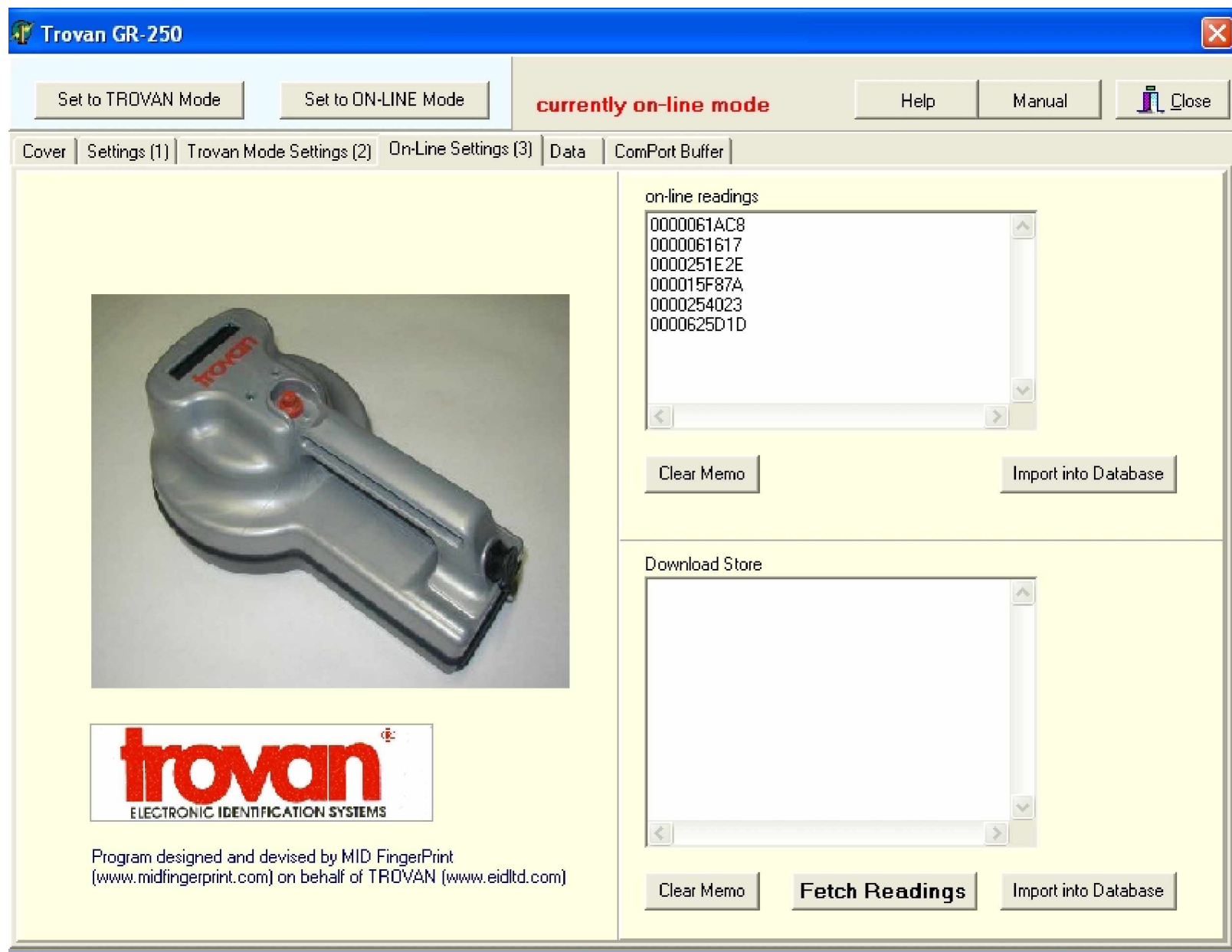
To clipboard Clear Memo

## GR-250 Utility Program – On-line Settings (3)



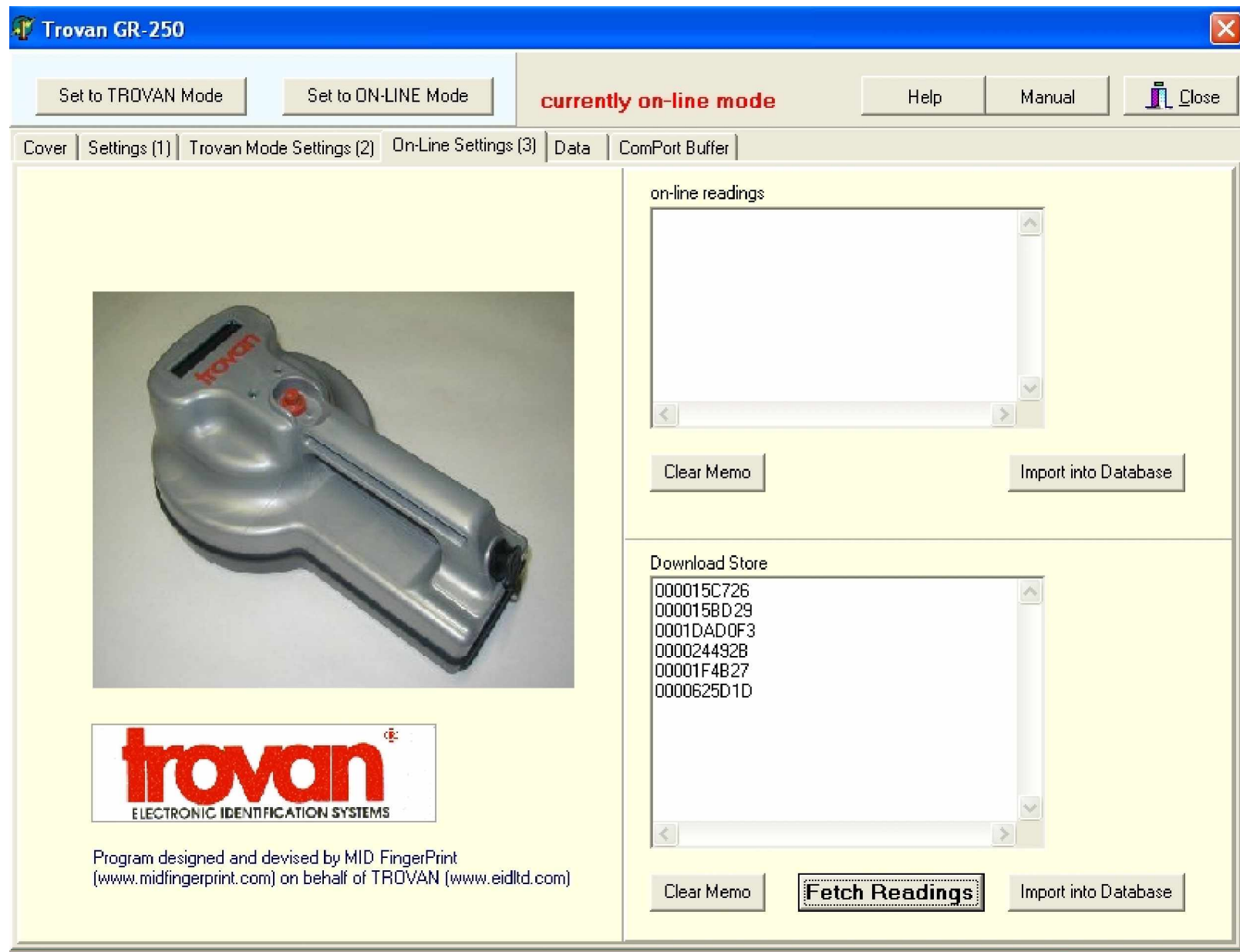
ID #'s of Transponders read while Reader is in the On-line Mode will appear in the upper box, unless the "Fetch Readings" is selected, and then the #'s will appear in the lower box. Readings in either box may be imported into the table in the "Data" tab by selecting "Import into Database".

## GR-250 Utility Program – On-line Settings (3) (Example 1)



## GR-250 Utility Program – On-line Settings (3)

(Example 2 – Reading Transponders after selecting “Fetch Readings”)



# GR-250 Utility Program – Data

Set to TROVAN Mode Set to ON-LINE Mode **currently Trovan mode** Help Manual Close

Cover Settings (1) Trovan Mode Settings (2) On-Line Settings (3) **Data** ComPort Buffer

Tag ID Lot No Alpha Bravo Charly Date Time

☐ Flagged

Comment

Import CSV File CSV Separator  
☐ Semicolon ☒ Comma  
☐ Colon ☐ Tab

Cancel ALL Flags

Select Database 1 User has choice of six databases

Export Table Export as  
☒ CSV ☐ HTML ☐ SYLK

Empty Table Edit Fieldnames

Leave blank for all Lots 01...FE Download to Database Download table to Reader  
☒ All ☐ Flagged only ☐ Single record Leave blank for existing Lot No 01...FE

tag	Lot	Flag	Alpha	Bravo	Charly	Date_	T

Provides for editing the selected record in the table below.

Places data from a specified Lot, or from all Lots in Reader memory into the Table.

Control Panel for movement & storage of data between the Table, the PC, and the Utility's 6 Databases. Database is CSV/Comma delimited.

Place data from the Table below to specified Lot, or, if not specified, to the designated "Current Lot" in Reader memory.

Data may be entered into this table from several sources:

- § Downloaded from Reader Lot memory,
- § By selecting one of the six databases above that had previously stored data,
- § Imported from a \*.csv file in the PC,
- § Imported from the Memos in the "On-Line Settings (3)" tab, or
- § Directly by selecting the field and typing in the information.



## GR-250 Utility Program – Data (Example 1 – Record in table being edited)

Trovan GR-250
✕

Set to TROVAN Mode

Set to ON-LINE Mode

currently Trovan mode

Help

Manual

Close

Cover | Settings (1) | Trovan Mode Settings (2) | On-Line Settings (3) | Data | ComPort Buffer

Tag IDLot NoAlphaBravoCharlyDateTime

0000625D1D0115/12/200915:49:52

☐ FlaggedDownload completed (12)

⏪⏴⏵⏩+-▲↶✕↷

Comment  
 THIS SELECTED RECORD IS BEING EDITED

Import CSV File

Cancel ALL Flags

Select Database

Export Table

Empty Table

CSV Separator  
☐ Semicolon ☐ Comma  
☐ Colon ☐ Tab

1 User has choice of six databases

Export as  
☒ CSV ☐ HTML ☐ SYLK

Edit Fieldnames

Leave blank for all Lots ☐ 01...FE

Download to Database

Download table to Reader

☒ All ☐ Single record  
☐ Flagged only

Leave blank for existing Lot No ☐ 01...FE

Tag ID	Lot No	Flagged	Alpha	Bravo	Charly	Date	Time	Comment
0000061AC8	01					15/12/2009	15:49:29	
0000061617	01					15/12/2009	15:49:35	
0000251E2E	01					15/12/2009	15:49:39	
000015F87A	01					15/12/2009	15:49:43	
0000254023	01					15/12/2009	15:49:48	
▶ 0000625D1D	01					15/12/2009	15:49:52	THIS SELECTED RECORD IS BEING EDITED
000015C726	01					15/12/2009	15:54:24	
000015BD29	01					15/12/2009	15:54:27	
0001DAD0F3	01					15/12/2009	15:54:31	
000024492B	01					15/12/2009	15:54:36	
00001F4B27	01					15/12/2009	15:54:39	

## Saved file in PC opened with CSVed Editor program

<http://csved.sjfrancke.nl/index.html>

CSVed G:\Waynes Documents\TEMP\GR-250 Utility File.csv

File Edit View Tools Help

12 x 9 [0][0]

Column 1	Column 2	Column 3	Column 4	Column 5
Tag ID	Lot No	Flagged	Alpha	Bravo
0000061AC8	01			
0000061617	01			
0000251E2E	01			
000015F87A	01			
0000254023	01			
0000625D1D	01			
000015C726	01			
000015BD29	01			
0001DAD0F3	01			
000024492B	01			
00001F4B27	01			

Go to Column: 1

Column 1  
Column 2  
Column 3  
Column 4  
Column 5  
Column 6  
Column 7  
Column 8  
Column 9

Go to Line: 1

CSVed version 1.4.9 Sam Francke 2009

Modify Modify 2 Modify 3 Modify 4 Proper Misc Save Search Replace ... to XML ... Fixed Length Export

Set Separator: ☒ Comma, ☐ ; Semi Colon, ☐ Tab, ☐ | Pipe, ☐ Other

Start Row: 1

☐ Keep Value at Loading File  
☐ Use as Column Captions

Column Name: Column Add

Set New Column Order

Edit Record: Edit ... Insert ... Add ... Delete

Edit Column: ☐ Selected Rows, Column to Edit: Column 1, New Value: Edit Column

Delete Columns: Select Columns: Column 1, Column 2, Column 3, Column 4, Column 5, Column 6, Column 7, Delete Columns

Copy - Move Column: Source Column: Column 1, Target Column: Column 1, Copy Column, Move Column

Add - Insert Column: Value for Column: Column Caption: Increment: 0 Add Column

browse comma portable

**CAUTION! CSV files opened & edited using Microsoft Excel cannot be imported back into the GR-250 Utility Program. Use the CSVed Editor program instead.**