SI-GATE GMBH

VANTAGE

User's Manual

Contents

Introduction

Welcome to Vantage

This document explains the basic features and functions of Vantage, the Si-Gate VDL-1000's assistance software. The Vantage program provides a tool which allows the user of the VDL-1000 to do two distinct operations. The first of which is a graphical user interface (GUI) to assist in writing and archiving custom configuration files which can be used on the VDL-1000's Compact Flash card. The second is a conversion tool which can translate the logged data files from the VDL-1000 into popular formats. These formats can then be imported by other development programs such as CAN Analysis tools.

By taking a few minutes to read through this manual you will better understand this software and learn how to get the most out of your VDL-1000. For information concerning the operation of the VDL-1000 unit itself please refer to to the VDL-1000 User's Guide document. You are welcome to visit *www.si-gate.com* for program updates and other information which may not be presented in this manual.

The VDL-1000 Data Logger

Installing the Software

The Vantage program can be found on the VDL-1000's Installation CD that comes with the Car Kit. The program can be found in the following location:
Si-Gate VDL-1000 CD/Vantage/VantageSetup.exe
By double clicking on the Vantage.exe icon, the program installer will be opened and guide you through the rest of the installation.

If the program is downloaded from the internet, a zip file will be created where the user has determined. Upon expanding the zip file, a folder will be created with the file *VantageSetup.exe* located inside of it. Double click on this to open the installer program.

About this Manual

This manual is divided into three main sections.

Configuration Tool - Using Vanatge to assist in writing custom configuration scripts
In this section you will learn how to use Vantage to assist you in writing, saving, and archiving custom configuration scripts for the VDL-1000, the functions behind the different configuration parameters, and how to write your configuration file to a Compact Flash card where it can be used by the VDL-1000.

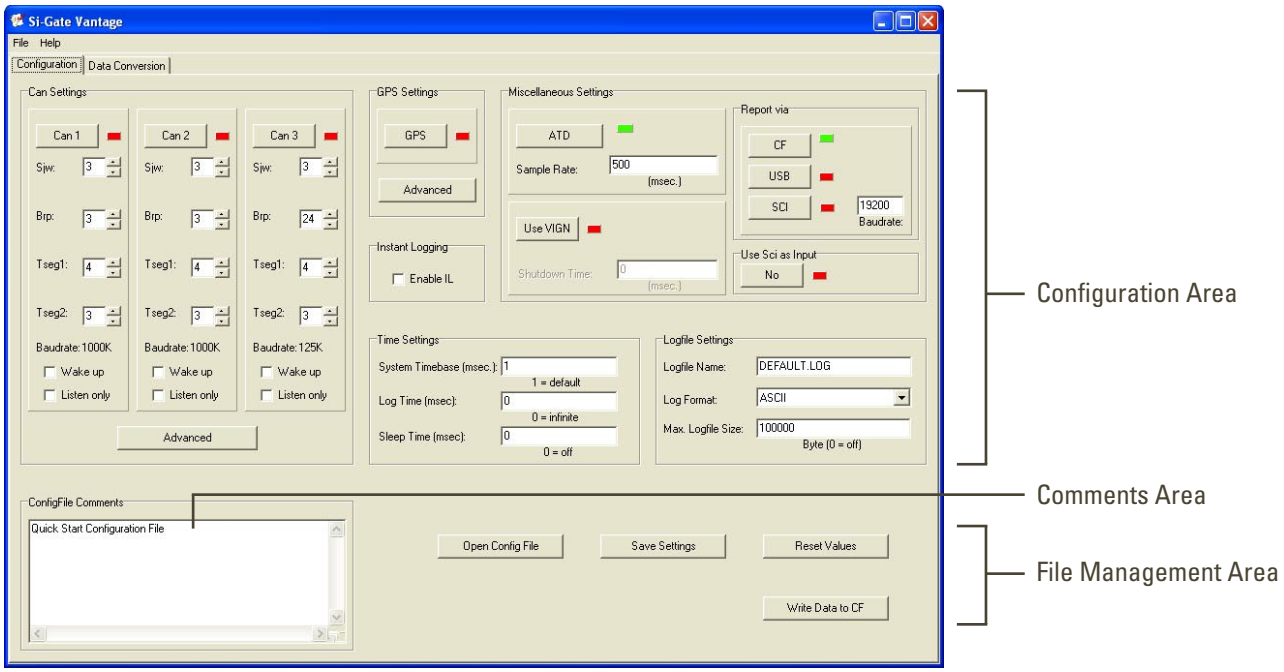
Conversion Tool - Using Vanatge to convert the VDL-1000's log files
This chapter describes the features behind Vantage's data conversion tool and how to control which data is output and in which format.

Appendix - Additional Information
Has information listing known issues of the program, planned future support, and un-install procedures.

Configuration Tool

Overview of the Configuration Tool Window

When Vantage is started, the default window is the Configuration window. You can use the tabs at the upper left to switch back and forth from the configuration tool to the data conversion tool. The picture shown below highlights the three basic elements of the Vantage configuration tool window.



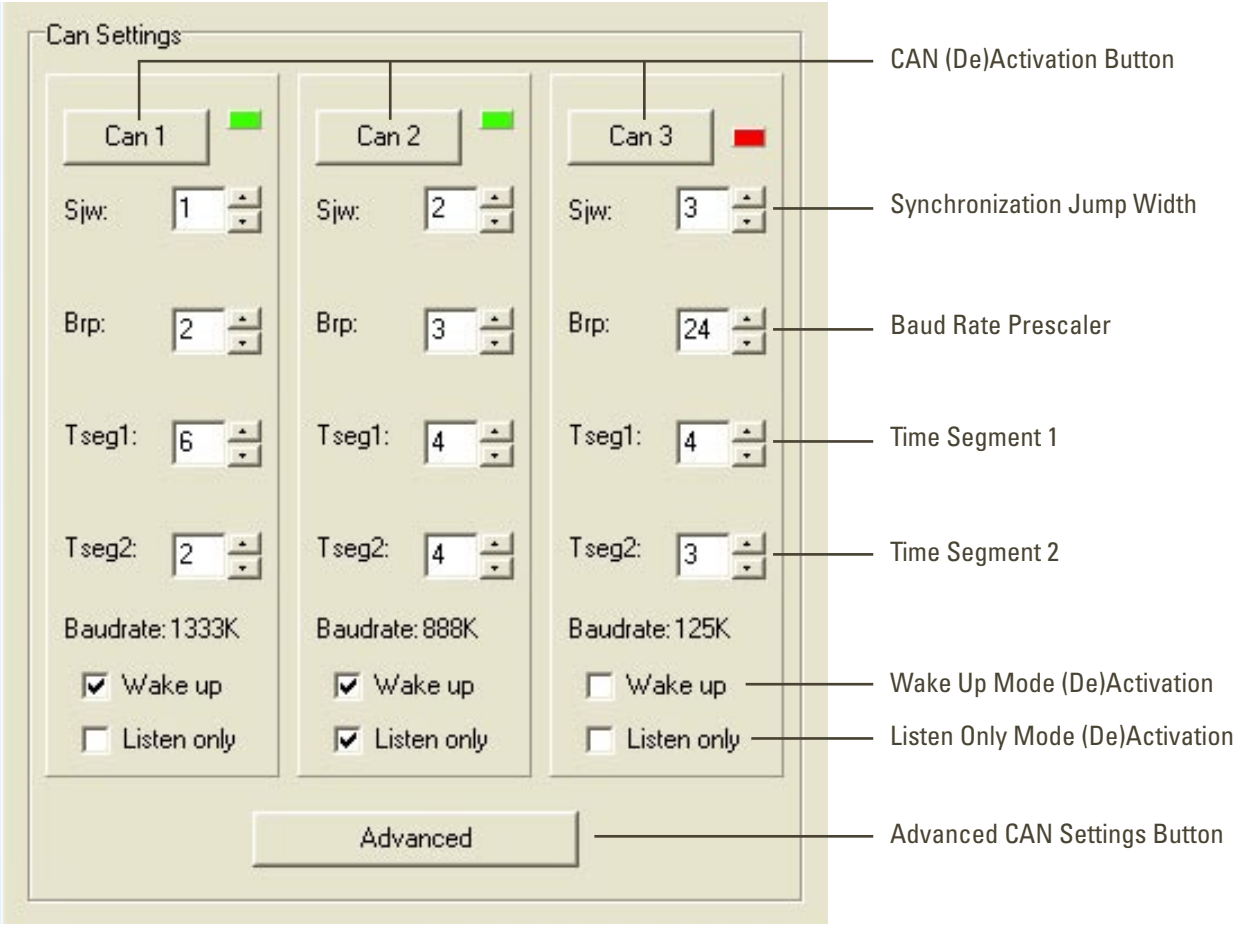
The following sections of this manual will explain these three elements in detail.

Configuration Area

In this area, parameters can be adjusted to create configuration scripts for the VDL-1000 to fit your exact needs. Following is an explanation of each of the individual interface boxes.

CAN Settings

The CAN Settings interface is divided into two different layers. The most commonly adjusted settings are displayed in the Configuration Tools main window with more advanced settings located in a pop-up window. For additional information concerning the VDL-1000's CAN interfaces, please refer to the VDL-1000 User's Guide.



- *CAN (De)Activation Button* - Clicking on this button will activate (green status) or deactivate (red status) the corresponding CAN node. If a CAN node will not be used it is recommended to deactivate it to free unused calculation power on the VDL-1000's internal microcontroller.

- *Synchronization Jump Width* - This value defines the maximum number of time quanta clock cycles that a bit can be shortened or lengthened to achieve resynchronization to data transitions on the bus. The program allows a value of 0,1, 2, or 3.

- *Baud Rate Prescaler* - The baud rate prescaler generates the time quanta clock from the system clock which is running at 24MHz. The program allows a value between 1 - 64.

- *Time Segment 1* - Controls the Value for CAN Time Segment 1. Accepted values are between 1 - 16.

- *Time Segment 2* - Controls the Value for CAN Time Segment 2. Accepted values are between 1 - 8.

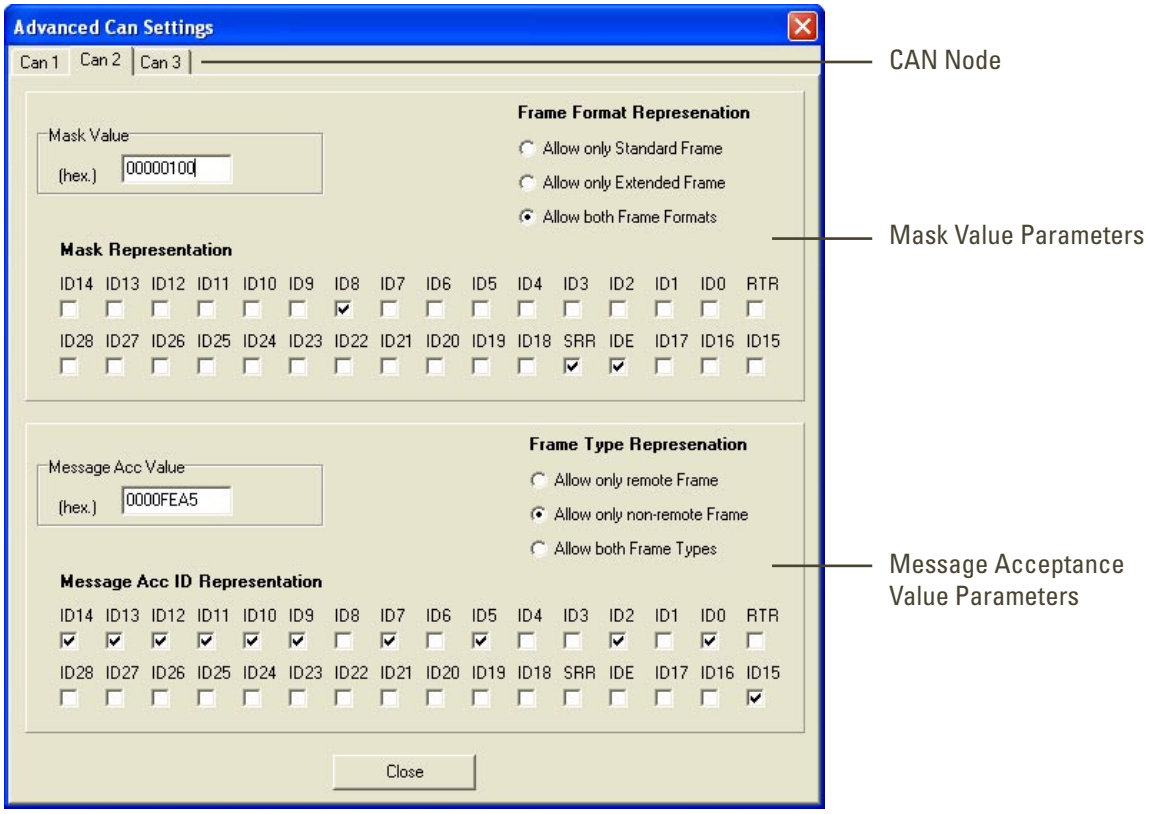
- *Wake Up Mode (De)Activation* - Checking allows the VDL-1000 to be woken up when valid messages are received on that CAN node.

- *Listen Only Mode (De)Activation* - By checking, it programs the VDL-1000's CAN nodes to a listen only mode. In this mode they act as pure bus monitors not sending any acknowledge or error frames.

- *Advanced CAN Settings Button* - Clicking on this button opens up the advanced CAN settings window where it is possible to set the mask and message acceptance ID's.

Advanced CAN Settings

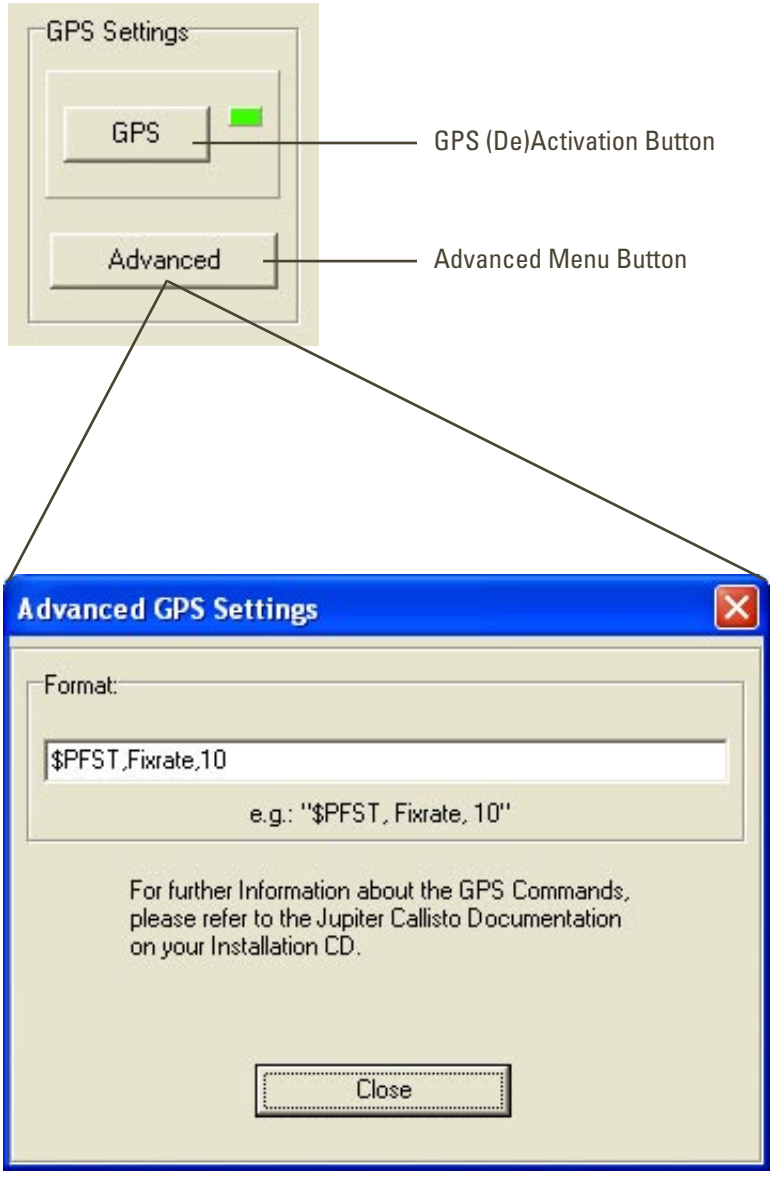
In the Advanced CAN Settings window it is possible to activate CAN filtering by controlling the Mask Value and Message Acceptance Value Parameters. For additional information concerning the VDL-1000's CAN interfaces, please refer to the VDL-1000 User's Guide.



- *CAN Node* - Clicking on the various tabs will choose which CAN node is being configured.
- *Mask Value Parameters* - The desired Mask Values can be given in a hexidecimal format in the Mask Value box. The Frame Format as well as the Activated ID bits are representations only of the provided hexidecimal value.
- *Message Acceptance Value Parameters* - The desired Message Acceptance Values can be given in a hexidecimal format in the Message Acceptance Values box. The Frame Type as well as the Message Acceptance ID bits are representations only of the provided hexidecimal value.

GPS Settings

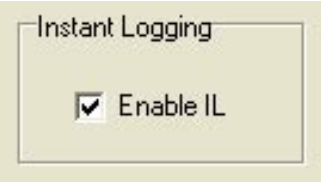
The VDL-1000 is offered as an option with a built in GPS receiver. To activate and de-activate the GPS system use the button found in the main window of the Configuration Tool. By clicking on the advanced button in the GPS window, a pop-up window will be presented to set exact settings for the GPS unit.



For further information on how to configure this, please refer to the Jupiter Callisto Documentation on the VDL-1000's installation CD.

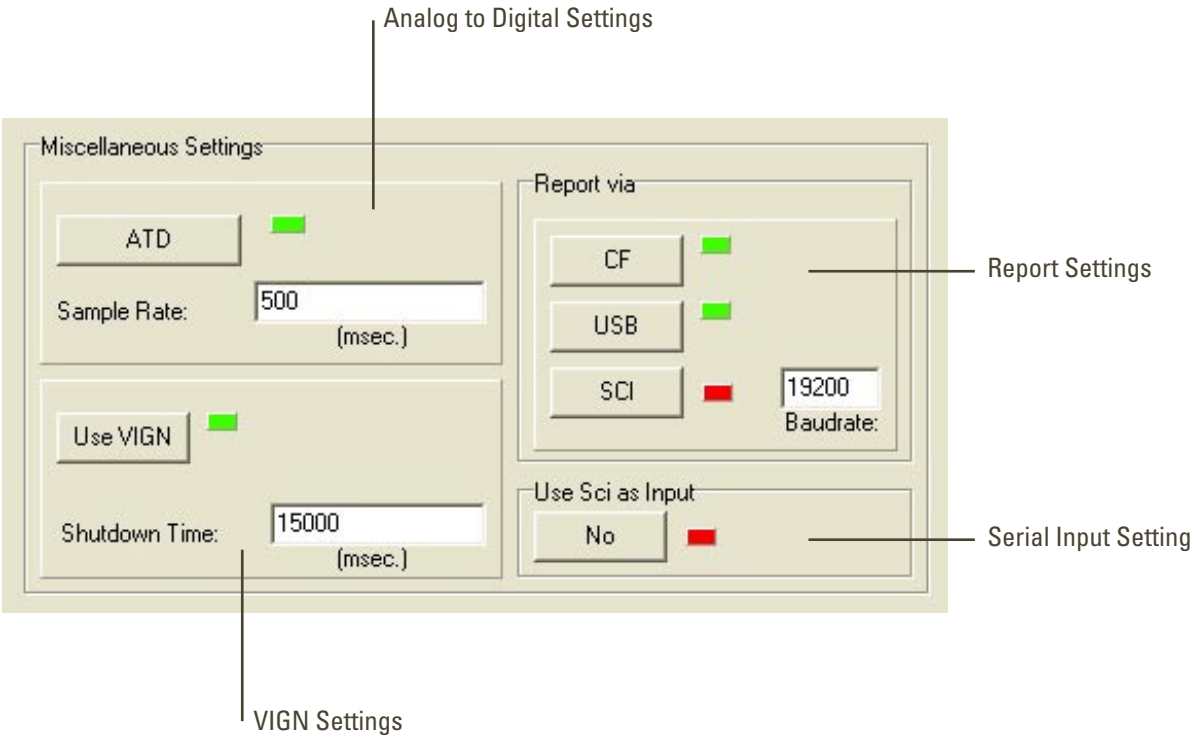
Instant Logging

The VDL-1000 is able to start logging data instantly after power up or after the Compact Flash card is inserted into the device. In order to do this click the Enable IL check box in the Instant Logging control panel.



Interface Settings

In these zones, you are able to activate and adjust the other interfaces of the VDL-1000 such as analog, serial, and usb channels.



- *Analog to Digital Settings* - Clicking on the ATD button will (de)activate the use of the 16 analog input channels. A sample rate may be given in the adjacent text box to determine the sample rate of the analog interface in milliseconds. It will accept a value between 3 - 60,000 when the Log Format is in Binary Mode or a value of 15 - 60,000 when it is in ASCII Mode.

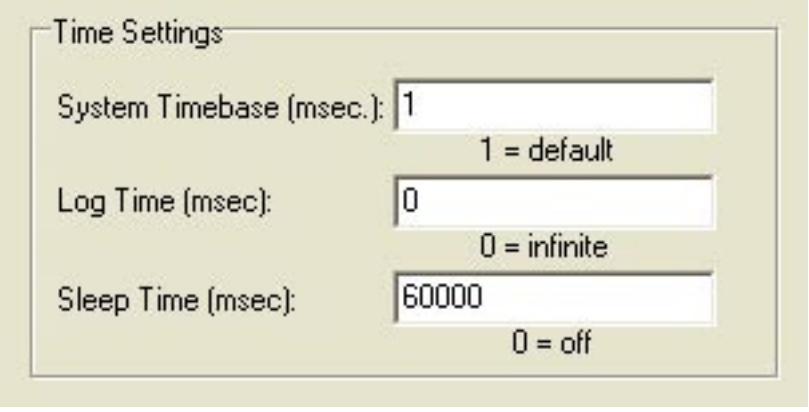
- *VIGN Settings* - By activating the VIGN mode on the VDL-1000, the unit will be allowed to recognize the presence or loss of a voltage signal (typically the vehicle ingnition voltage). If the Use VIGN button is activated the user is allowed to enter a Shutdown Time between 0 - 60,000 milliseconds in the adjacent box. This will keep the VDL-1000 powered up according to the set time after the loss of a voltage signal. Upon reaching this time, shutdown will occur.

- *Report Settings* - The buttons in this zone allow (de)activation of the three possible interfaces where the VDL-1000 can output logged data. If CF is chosen make sure that there is also a Logfile Name and a Logfile Size given. If SCI is activated the communication baudrate for the serial port must also be set. Please keep in mind that the input data flow must be less than that of the serial baud rate otherwise the memory buffer will be exceeded which can result in the loss of data.

- *Serial Input Settings* - When this box is checked to yes, the serial port of the VDL-1000 can be used as a data input node. In this mode, it will no longer be possible to configure the VDL-1000 over the serial port. Also the Report to SCI button will automatically be dis-activated.

Time Settings

In this configuration zone the time parameters which directly control the operation of the VDL-1000 can be set. It is divided into three parts; system time, Log Time, and Sleep Time.



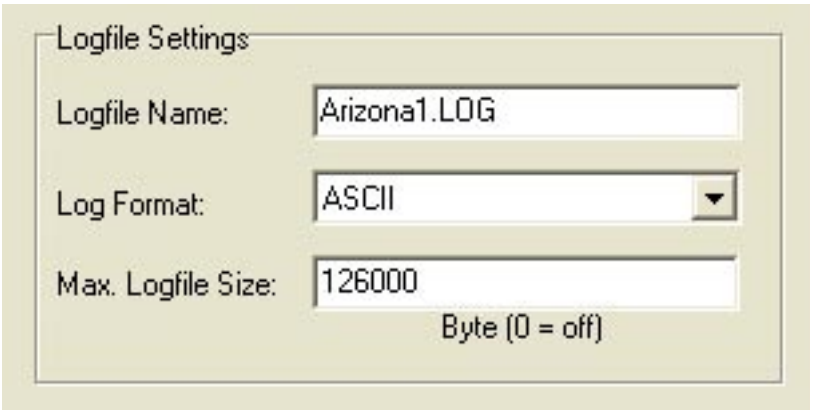
- *System Time Base* - This parameter sets the resolution of the time stamp by which the VDL-1000 uses to log data. The program allows a variable between 1 - 8,388,607 milliseconds.

- *Log Time* - Here it is possible to set-up the VDL-1000 for time limited logging. Infinite logging time is defined by 0. Any value greater than 0 will define the maximum legnth of log time up to 8,388,607 milliseconds.

- *Sleep Time* - The value provided here defines the amount of time passed in milliseconds since no actions on the VDL-1000's interfaces have been noticed until the unit goes into sleep mode. The sleep mode is quit when an event on the serial interface or the USB is recognized or if the Start/Stop button is pressed. In addition, the sleep mode is also left when a permissible message is detected on a CAN node.The program allows a variable between 1 - 8,388,607 milliseconds.

Logfile Settings

Here the parameters can be set for the output of the log file that will be created by the VDL-1000.



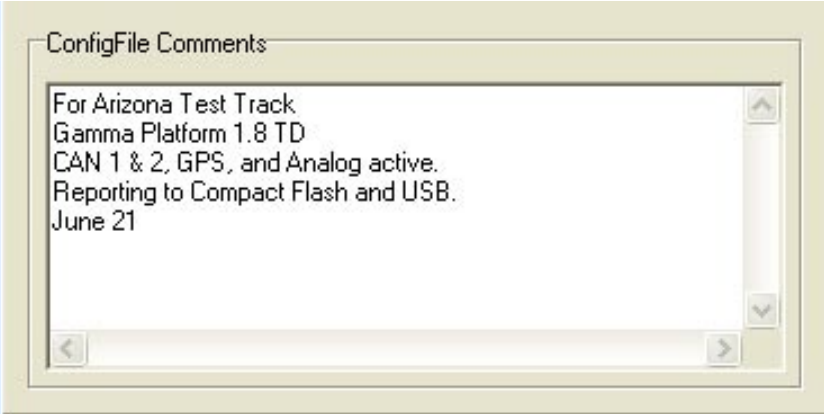
- *Logfile Name* - The name must be given in a standard 8 to 3 naming convention.

- *Log Format* - Here it is possible to choose for the Log File to be recorded in either ASCII or Binary format.

- *Max. Logfile Size* - The size must be indicated in bytes which is smaller than the free space available on the Compact Flash card. Thus a maximum file size of 1MB must be posted as the integer number 1048576.

Comments Area

In this area, comments may be written about the configuration file. This may include items such as date and time when it was created, enabled configuration options, or location where this script is used such as test track or mountain route.

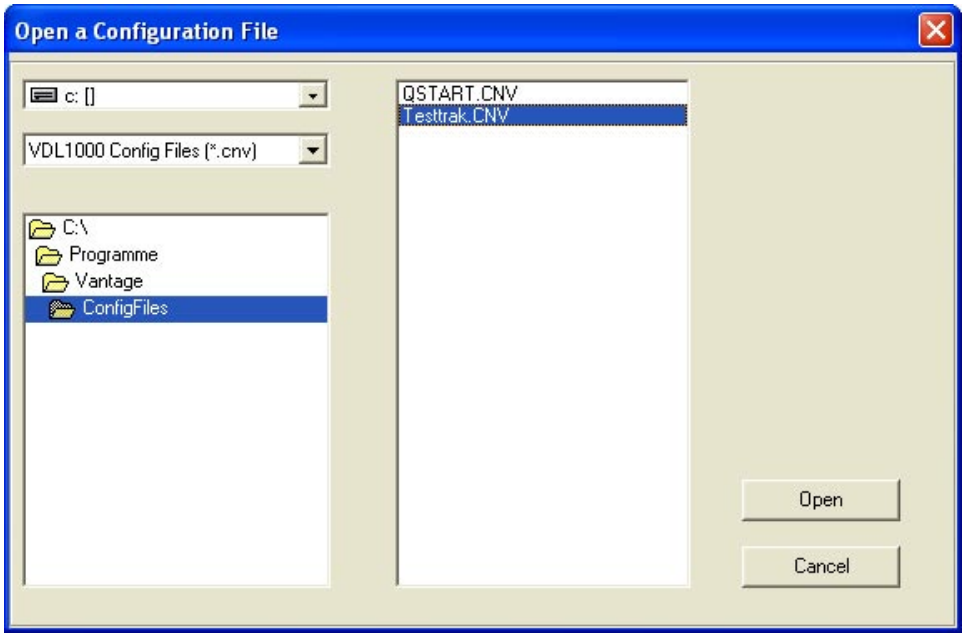


File Management Area

In this area, all functions related to the opening, saving, resetting parameters, and writing of configuration files is performed.

Opening a Configuration File

Press on the Open Config File button to open a previously saved configuration file. By default a file browser window will open to the Vantage program folder. By double clicking on the ConfigFiles folder a selection of valid configuration files with the program extension of ".CNV" will be displayed in the preview window. When the desired file is selected and the Open button is pressed, this configuration file will be opened in the Configuration Tool's main window.

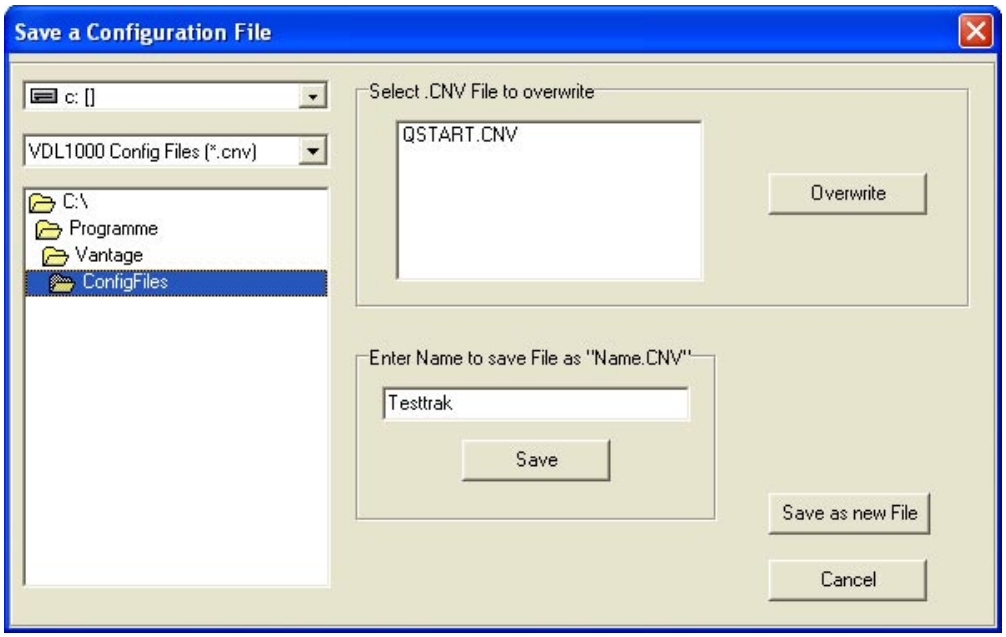


Saving Settings

Once a custom configuration setting has been made, it is possible to archive this for future reference. It is also possible to modify and overwrite the file which is currently active in the Configuration Tool's main window. To do either one of these actions press the Save Settings button in the main window. A browser window will be displayed which is directed to Vantage's main folder. Here another folder has been created by the VantageSetup installation program with the name "ConfigFiles". By douple clicking this folder, any valid configuration files with the extension of ".CNV" will be displayed in the preview window.

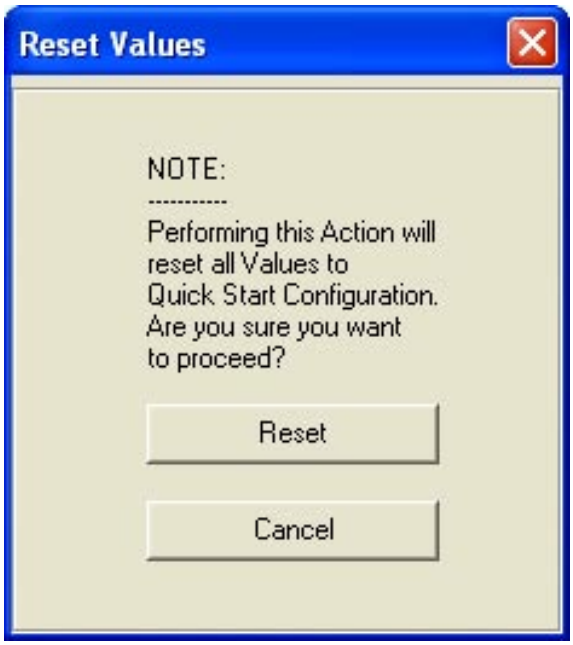
To overwrite an existing file choose which file to overwrite, select it in the preview window and click the overwrite button.

To save the configuration as a new configuration file, press the "Save as new File" button. When this is done a new dialog box opens up which allows you to give the configuration file a custom name. The name must be between 1 - 8 characters with no special signs. Pressing on the Save button will archive the file for later reference.



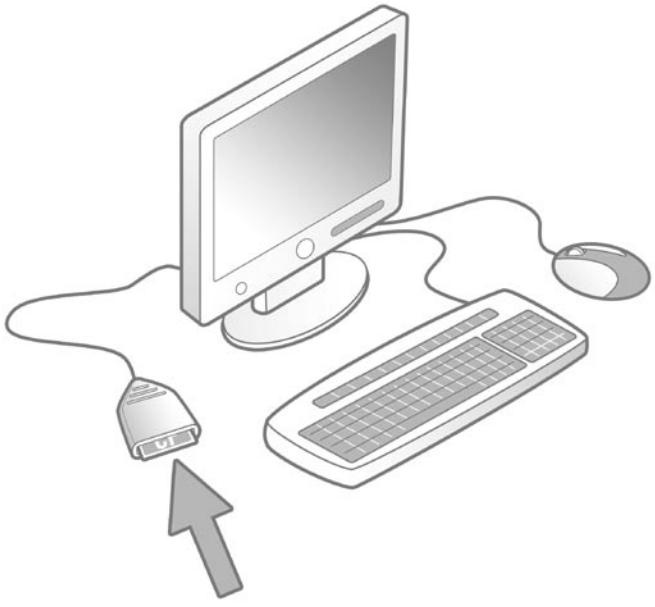
Reseting Values

By pressing this button, it restores all of the VDL-1000's settings to their original startup values. A caution box will be presented asking if you would like to proceed.

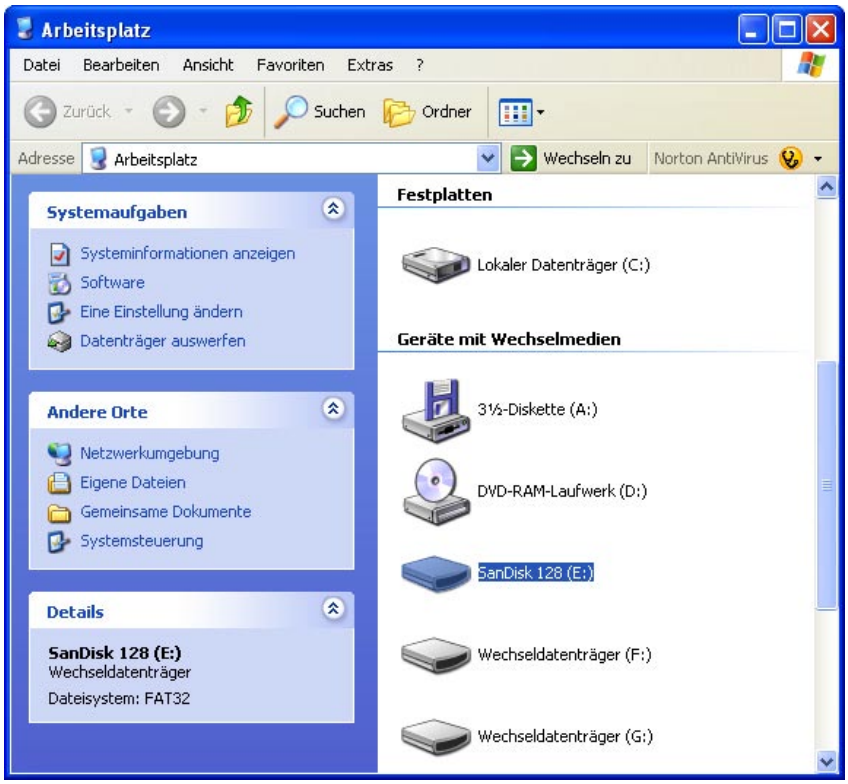


Writing Data to Compact Flash

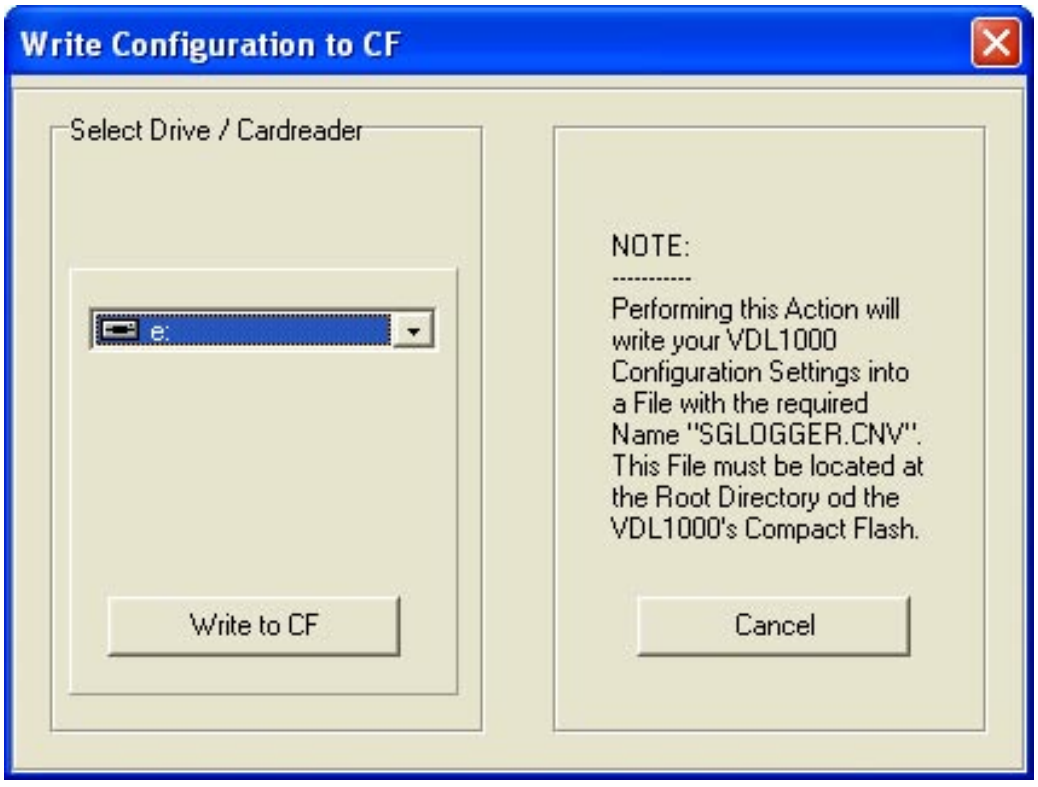
When all of the desired settings have been chosen in Vantage, it is then possible to write these directly to Compact Flash for use in the VDL-1000. To do this, insert the VDL-1000's Compact Flash into the provided card reader and connect it to an open USB port on the computer. If the device is not recognized by the operating system, then install the drivers that came with the card reader.



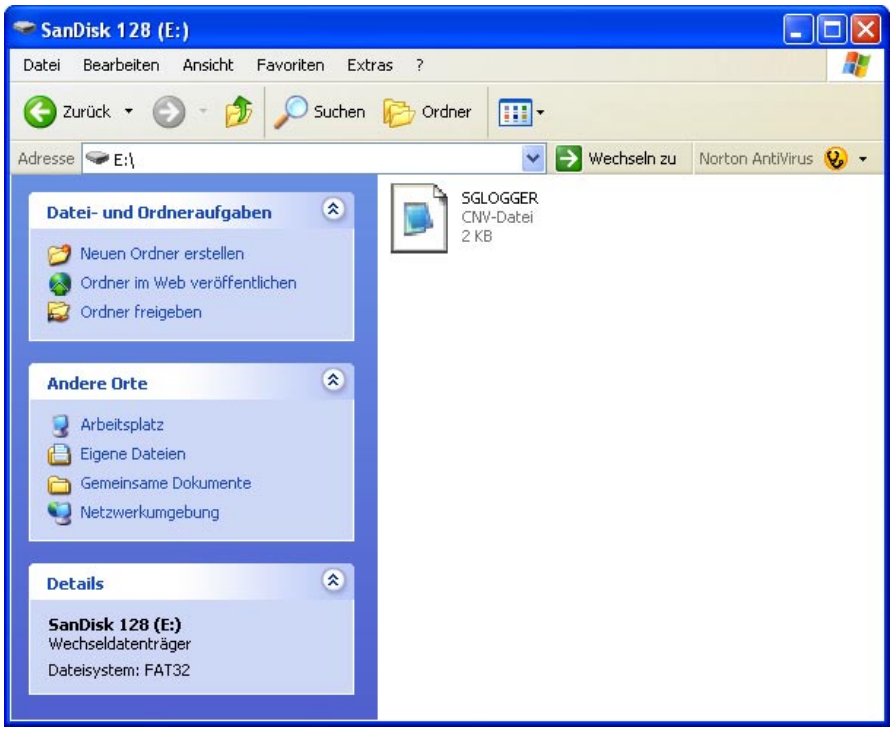
The device should appear in the drive directory.



Clicking on the button “Write Data to Compact Flash” will open up a browser window that provides a list of available drives that are connected to the computer.



Select the appropriate drive for the Compact Flash from the drop down box and press the button “Write to CF”. This will write the configuration file to the Compact Flash with the required file name “SGLOGGER.CNV.

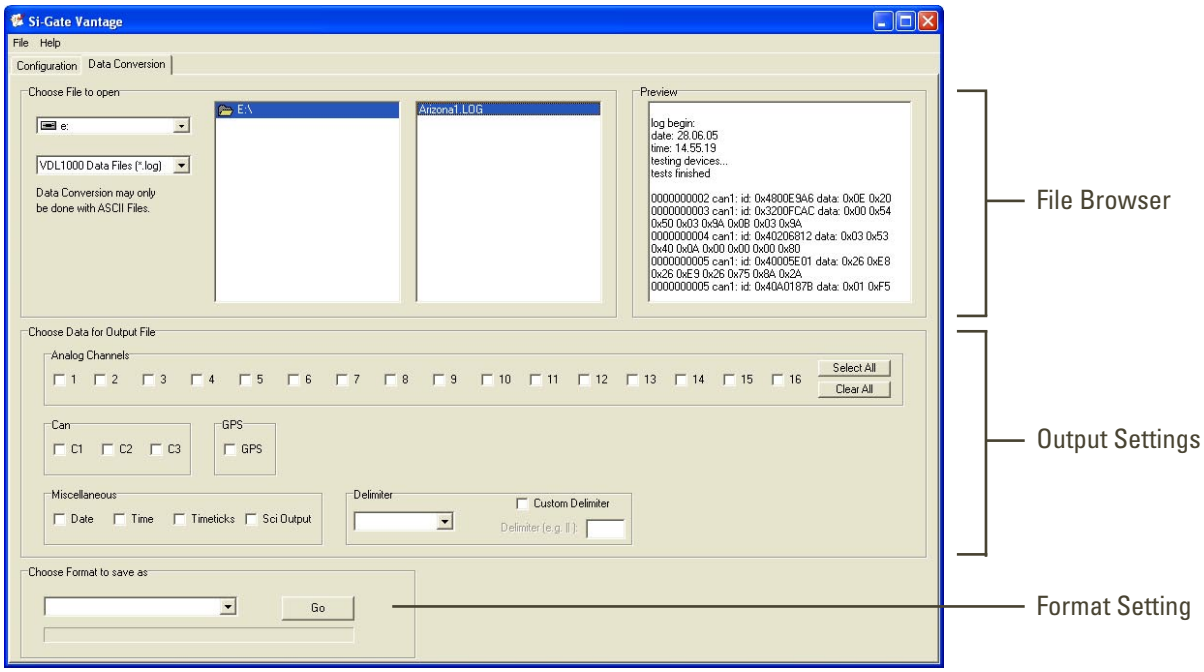


After this has been done the Compact Flash must be ejected from the computer, then the card can be removed and inserted into the VDL-1000 to be used as a valid configuration file.

Conversion Tool

Overview of the Conversion Tool Window

If the logged data from the VDL-1000 is in ACSII format, it is possible with the Vantage program to convert the data to a number of useful formats. This includes standard comma seperated values (CSV) as well as text (TXT) files. Vantage's conversion tool is seperated into 3 main elements.



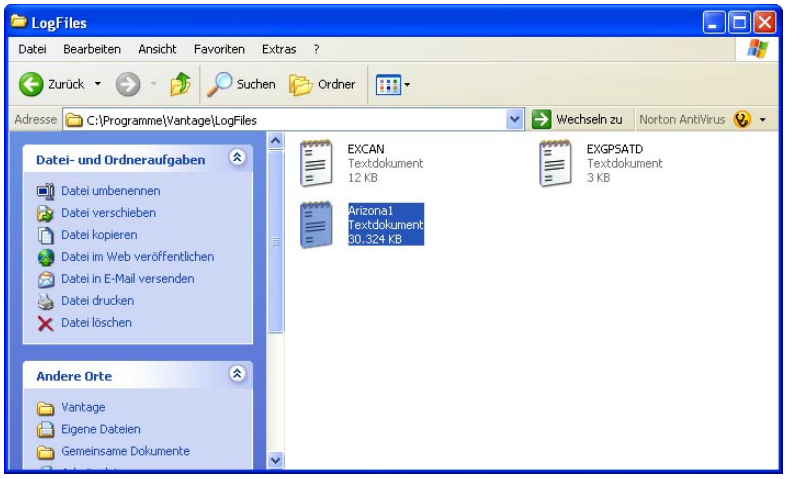
The following sections of this manual will explain these three elements in detail.

File Browser

In the “Choose File to Open” box, the file which is desired to be converted can be selected.

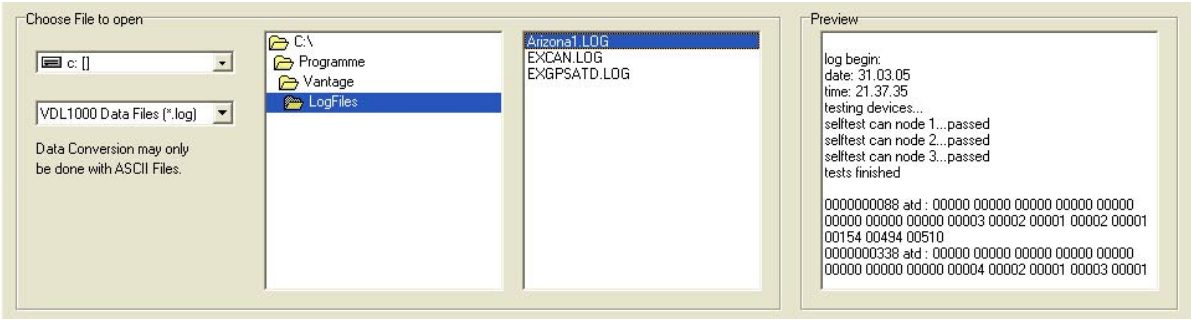
Back Up!

When the logging of data is finished it is highly recomended to back-up this data. The Vantage Installation program creates a folder named LogFiles which is found in the main Vantage folder. This is provided as a suggested place to archive your .LOG files from the VDL-1000. There are 2 example .LOG files placed in the folder from the installer program as well. These can be deleted if the user chooses to do so.



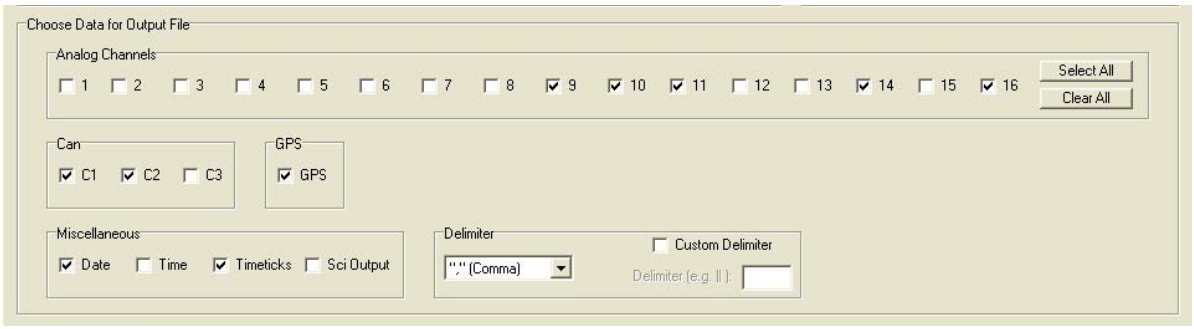
File Selection

Use the browser window at the top of the Conversion Tool to select which file is to be converted. The browser will only recognize files with the .LOG file extension. The preview window will give the main details of the selected file.



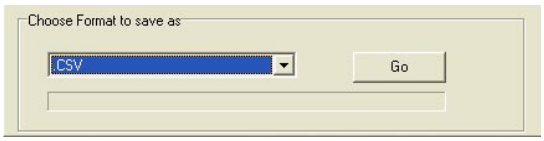
Output Settings

The desired settings for the output of the converted file can be chosen in the "Choose Data for Output File" box. Because the requirements vay for different data analysis programs, it is possible to choose a deliminator from the pull-down menu or make a custom deliminator.



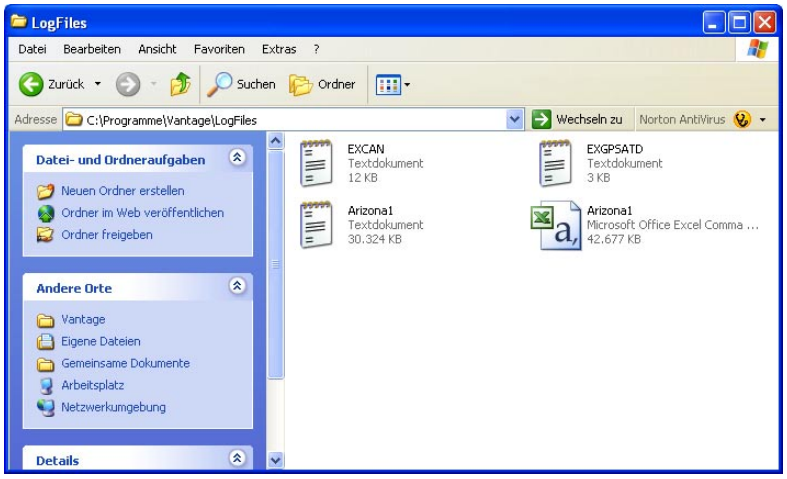
Format Setting

The Vantage program is able to convert the VDL-1000's data into either a CSV or TXT format. The drop down menu in the "Choose Format to Save As" box allows choosing either one of these.



Conversion

When all settings for conversion are correct, the conversion will be activated when pressing the "Go" button. The file will be written to the same directory as where the original log file is located. A green progress bar will indicate the ongoing status of the conversion.



Appendix

Known Issues

- Progress bar in Conversion Tool does not work properly in all configurations
- No overwrite protection on converted files

Planned Future Support

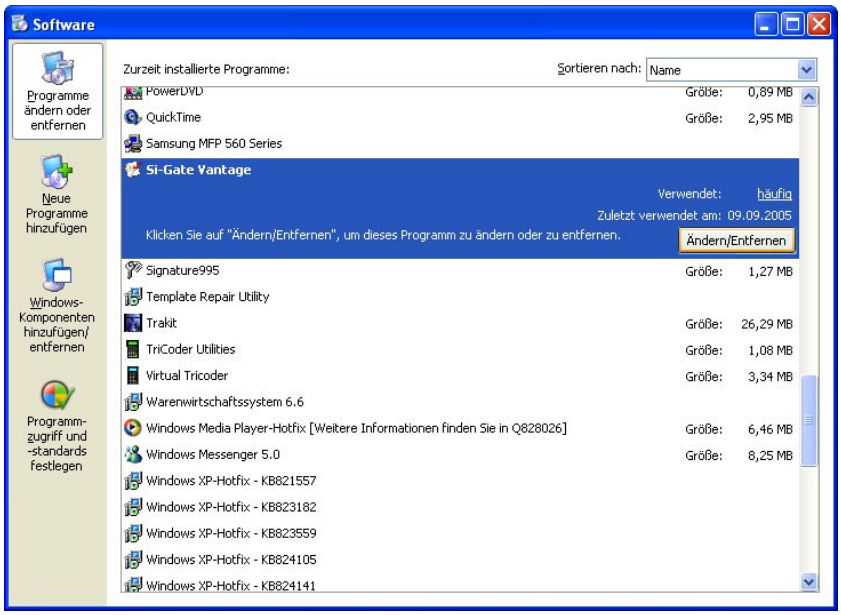
- Reformatting of Compact Flash card from program
- Setting of real time clock and date of VDL-1000 while connected to device
- Updating of configuration file on the Compact Flash card while in the VDL-1000
- Addition of other conversion formats

Un-installing

To thoroughly un-install the Vantage program from your computer, the following two operations should be completed:

1.) Find the folder Vantage that was created on your hard drive and delete it. Please make sure that any needed .LOG files are removed before doing this!

2.) Go to the Windows *Control Panel* and select *Add or Remove Programs*. Find in the list *Si-Gate Vantage* and then press the Delete button.



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Si-Gate Vantage User's Manual
Revision 1.1b.a 14.09.2005