



User Manual

Revision 2.000
English

CAN 232 DRIVER

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UPDATED DOCUMENTATION:

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REVISION LIST:

Revision	Date	Author	Chapter	Description
1.101	27/06/2007	Av	All	Revision
1.200	18/07/2007	Dp	All	Revision
1.300	24/08/2007	Dp	All	Revision
2.000	09/10/2008	Fl	All	New document format

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INTRODUCTION

The product is a software component presented as a library.

The library can be used with any system /Programming language such as Visual C, Visual Basic, Delphi, C Builder, Basic Script and HTML.

Applications are provided with the library.

DRIVER CHARACTERISTICS:

➤ CAN functions implemented:

- InitAnalyzer
- CanStart
- CanStop
- GetCanFrames
- SetCanFrame
- SetFilter
- GetFilter
- GetStatus
- SetBaudRate
- GetBusLoad
- GetVersion
- DeInitAnalyzer
- Reset

SOFTWARE COMPATIBILITY

- Windows 9x, Windows 2000, Windows XP

FILE CONTENTS: DL67190.ZIP

Contains the following folders and files:

- DLL_CAN_232_MN67190_ENG.pdf .
- Folder ADF_DLL_CANana
 - CAN_232_DLL.dll
 - Folder with one Example in Borland Delphi

THE FUNCTIONS EXPORTED FROM THE LIBRARIES

InitAnalyzer

PARAMETERS:

Name	Description	Data type	Value
ComPort	Number of the port	Unsigned char	0-255 0 = COM1 1 = COM2
Baudrate	Speed of Can bus	Unsigned long	10,20,50,100,125, 250,500,800,1000
CANType	Type of the CAN	Unsigned char	1 = Standard (11 bit) 0 = Extended (29 bit)

RETURN VALUE:

The function returns an "long" that can take on the following values:

- 1 if the operation is completed correctly
- 0 if there is an error when open port.
- 1 if there is an error in Baudrate
- 2 if there is an error in ComPort parameter
- 3 if there is an error in CANType parameter

CanStart

PARAMETER: none

It is used to start the read of the can message

RETURN VALUE:

The function returns an "unsigned char" that can take on the following values:

- 1 if the operation is completed correctly
- 0 if the InitAnalyzer function is not called.
- 255 generic error

CanStop

PARAMETERS: none

It is used to stop the read of the can message

RETURN VALUE:

The function returns an "unsigned char" that can take on the following values:

- 1 if the operation is completed correctly
- 0 if the InitAnalyzer function is not called.
- 255 generic error

GetCanFrames

PARAMETERS:

Name	Description	Data type	Value
Frames	Pointer to an array of structure		

Frames is a pointer of an array of struct

OutData frames[MAXFRAMES];

MAXFRAMES is equal at 2000;

The OutData structure is declared as following:

```
Struct OutData {
    Unsigned long CobID;    //COB-ID
    Unsigned char NByte;   //N of byte for this frame
    Unsigned char Data[8]; //array with data
    Unsigned long Time;    //time of Frame expressed in 1/10 of milliseconds.
}
```

RETURN VALUE:

The function returns an "long" that can take on the following values:

- 0 Error in read;
- >0 the number of record present in Array.

SetCanFrame

PARAMETERS:

Name	Description	Data type	Value
Frame	Data of frame	OutData	

The OutData structure is declared as following:

```
Struct OutData {
    Unsigned long CobID;    //COB-ID
    Unsigned char NByte;   //N of byte for this frame
    Unsigned char Data[8]; //array with data
    Unsigned long Time;    //time of Frame expressed in 1/10 of milliseconds.
}
```

RETURN VALUE:

The function returns an "long" that can take on the following values:

- 0 Error in write
- 1 if the operation is completed correctly

SetFilter

PARAMETERS:

Name	Description	Data type	Value
Filter	Filter of CAN message	Pointer of an array of byte	

Filter is declared as following:

```
Unsigned char Filter[256];
```

Every bit of every Byte of array mask an COB-ID.

For example: the bit 0 of Filter[0] is equal to COB-ID \$000, the bit 1 of Filter[0] is equal to COB-ID \$00, ..., the bit 0 of Filter[1] is equal to COB-ID \$008 and so on.

If the bit is equal at 1 the message with that COB-ID are delete from hardware.

RETURN VALUE:

The function returns an "long" that can take on the following values:

- 1 if the operation is completed correctly
- 0 if the InitAnalyzer function is not called
- 1 Filter is in download
- 2 Generic Error

GetFilter

PARAMETERS:

Name	Description	Data type	Value
Filter	Filter of CAN message	Pointer of an array of byte	

Filter is declared as following:

```
Unsigned char Filter[256];
```

Every bit of every Byte of array mask an COB-ID.

For example: the bit 0 of Filter[0] is equal to COB-ID \$000, the bit 1 of Filter[0] is equal to COB-ID \$00, ..., the bit 0 of Filter[1] is equal to COB-ID \$008 and so on.

If the bit is equal at 1 the message with that COB-ID are delete from hardware.

The function returns an "long" that can take on the following values:

- 1 if the operation is completed correctly
- 0 if the InitAnalyzer function is not called

GetStatus

PARAMETERS: none

The Bit 0 of result byte represent the CR state.

The Bit 1 of result byte represent the TP state.

The Bit 2 of result byte represent the OV state.

The Bit 3 of result byte represent the WL state.

The Bit 5 of result byte represent the BO state.

For more information please see the analyzer manual.

If the value is equal to 255 the InitAnalyzer function is not called

SerBaudRate

PARAMETERS:

Name	Description	Data type	Value
BaudRate	BaudRate of CAN bus	Long	10,20,50,100,125, 250,500,800,1000
CANType	Type of CAN	Unsigned char	1 = Standard (11 bit) 0 = Extended (29 bit)

RETURN VALUE:

The function returns an "unsigned char" that can take on the following values:

- 1 if the operation is completed correctly
- 0 if there is an error.
- 1 if there is an error in Baudrate
- 2 generic error
- 3 if there is an error in CANType

GetBusLoad

PARAMETERS: none

RETURN VALUE:

The function returns an "long" that can take on the following values:

- 255 if the InitAnalyzer function is not called
- From 0 to 100 is the value (in per cent) of the Bus Load.

GetVersion

PARAMETERS: none

RETURN VALUE:

The function returns a "long" that is the Get Version

DeInitAnalyzer

PARAMETERS: none

Reset

PARAMETERS: none

The function returns an "long" that can take on the following values:

- 1 if the operation is completed correctly (reset of the board)
- 255 if the InitAnalyzer function is not called
- 2 generic error

DIMENSION OF DATA

Unsigned char is a 8bit data

Unsigned int is a 16bit data

Unsigned long is a 32bit data

Char is a 8bit data with sign

Int is a 16bit data with sign

Long is a 32bit data with sign

WARRANTIES AND TECHNICAL SUPPORT:

For fast and easy technical support for your ADFweb.com SRL products, consult our internet support at www.adfweb.com. Otherwise contact us at the address support@adfweb.com

RETURN POLICY:

If while using your product you have any problem and you wish to exchange or repair it, please do the following:

- 1) Obtain a Product Return Number (PRN) from our internet support at www.adfweb.com. Together with the request, you need to provide detailed information about the problem.
- 2) Send the product to the address provided with the PRN, having prepaid the shipping costs (shipment costs billed to us will not be accepted).

If the product is within the warranty of twelve months, it will be repaired or exchanged and returned within three weeks. If the product is no longer under warranty, you will receive a repair estimate.

PRODUCTS AND RELATED DOCUMENTS:

Part	Description	URL