

CATPro2 VT100



Installation- and Configuration Guide

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IMPORTANT INFORMATION

Attention



TO REDUCE THE RISK OF ELECTRIC SHOCK, NEVER OPEN THE DEVICE OR REMOVE ITS COVER.
IF SERVICE IS REQUIRED, PLEASE CONTACT OUR TECHNICIANS.

READ THESE INSTRUCTIONS CAREFULLY BEFORE SETTING UP THE DEVICE.

FOLLOW ALL WARNINGS AND OPERATING INSTRUCTIONS FOUND ON THE DEVICE OR IN THE OPERATING MANUAL.

KEEP THE OPERATING MANUAL AT HAND FOR FUTURE USE.

POWER SUPPLY: ONLY OPERATE THIS DEVICE WITH THE SUPPLIED AC ADAPTER OR WITH THE AC ADAPTER DESCRIBED IN THE OPERATING MANUAL.
ONLY OPERATE THIS DEVICE ON AN EARTHED VOLTAGE SOURCE.

DEENERGISING OF DEVICE: BEFORE INSTALLING THE DEVICE, ENSURE THAT IT IS DEENERGISED. DISCONNECT THE POWER PLUG OR POWER SUPPLY FROM THE DEVICE.

CABLES: ONLY USE CABLES SUPPLIED BY G&D. DAMAGE RESULTING FROM THE USE OF CABLES NOT SUPPLIED BY G&D IS NOT COVERED BY THE WARRANTY. AVOID CREATING TRIPPING HAZARDS WHEN LAYING CABLES.

VENTS: VENTS PREVENT THE DEVICE FROM OVERHEATING. DO NOT COVER THE VENTS.

EXCLUSION OF WARRANTY: G&D SHALL NOT BE LIABLE FOR DEVICES THAT

- HAVE BEEN USED FOR ANY PURPOSE OTHER THAN THE INTENDED USE.
- HAVE BEEN REPAIRED OR MODIFIED WITHOUT AUTHORISATION.
- EXHIBIT MAJOR EXTERNAL DAMAGE THAT WAS NOT REPORTED UPON RECEIPT OF THE DELIVERY.
- WERE DAMAGED BY ACCESSORIES NOT SUPPLIED BY G&D.

G&D SHALL NOT BE LIABLE FOR ANY TYPE OF CONSEQUENTIAL DAMAGE THAT MAY ARISE FROM THE USE OF THIS PRODUCT.

AREA OF APPLICATION: THE DEVICES ARE DESIGNED FOR INDOOR USE. AVOID EXTREME COLD, HEAT AND HUMIDITY.

CONFORMITY: THIS DEVICE CONFORMS WITH THE RELEVANT PROTECTION REQUIREMENTS OF THE STATUTORY DIRECTIVES ON ELECTROMAGNETIC COMPATIBILITY (89/336/EWG) AND THE EN55022 CLASS B (1998), EN50082-1 (1992) AND EN60950 STANDARDS.

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1 Description

1.1 General information

The **CATPro2 VT100** is used to connect serial VT-100 devices to the **CATCenter** system. The **CATPro2 VT100** converts the serial data stream to VGA and PS/2 signals, which can be processed by the **CATCenter**.

Configuration and operation is carried out over a user interface.

The **CATPro2 VT100** has a memory of 2000 lines.

1.2 Mode of operation

The **CATPro2 VT100** offers the following features:

- Emulate a VT100-Terminal
- Resolution 800 x 600 or 1024 x 768
- **Supports diverse functions of the** VT100 follow-up models
- automatic video alignment
- configuration via GUI with mouse support
- Mouse operation possible, when remote station supports xterm
- History with 2000 lines (equals 83 VT100-screen pages)
- Interface is switchable between DCE- and DTE-assignment (no requirement for a nullmodem cable)
- Supports Copy and Paste with the in a terminal window
- Various keyboard layouts adjustable
- Interface is „break-free“
- Visible Bell

1.3 Scope of delivery

- 1x **CATPro2 VT100**
- Serial connection cable, 9-pin Sub D (plug/socket)
- 1x manual
- 1x power supply (12 volt)

2 Installation instructions

To connect serial VT-100 devices, use the **CATPro2 VT100**.

- Disconnect the serial cable of the VT-100 device from the computer.
- Connect the serial cable of the VT-100 device to the **CATPro2 VT100**.
- Now plug one end of the Cat5 patch cable into the RJ45 socket (transmission) of the **CATPro2 VT100**.
- Then connect the other end of the Cat5 patch cable to the desired CPU interface (RJ45 socket) of the **CATCenter**.

3 Power supply

Connect the power supply via the **Power** socket. Use the plug-in power supply provided in the scope of delivery.

The voltage is 12V DC and a lockable thick-pin MiniDIN4 is used as a connector.

4 Terminal window presettings

At the top of the terminal window is the menu bar with the **"Edit"** and **"Info"** items.



Edit Info

The **"Edit"** menu item can be used to configure the **CATPro2 VT100** (see also [Chap. 5](#)). The **"Info"** menu item provides you with license information on the **CATPro2 VT100** (see also [Chap. 7](#)) and other information. Entries can be made in the central area of the terminal window.

The line at the bottom provides status information on the **CATPro2 VT100**. The left field contains the size of the terminal window in columns and lines. The middle field shows the current parameter settings for the RS232 interface of the **CATPro2 VT100**; these parameters can be edited (see also [Chap. 5.1](#)).



107x34 115200, 8N1, RTS/CTS, DCE Send break 0%

Send Break

In the terminal window you can send a break to the serial VT100 device. To do so, click on the "Send Break" button.



The field on the far right contains a percentage value that indicates to what percentage the internal buffer of the **CATPro2 VT100** is utilised.

5 Configuration

After you have connected the serial VT100 device with the **CATCenter** via the **CATPro2 VT100**, you can select the serial VT100 device in the OSD (**Select** menu) of the **CATCenter**. In this case, the terminal window of the **CATPro2 VT100** will appear on your screen.



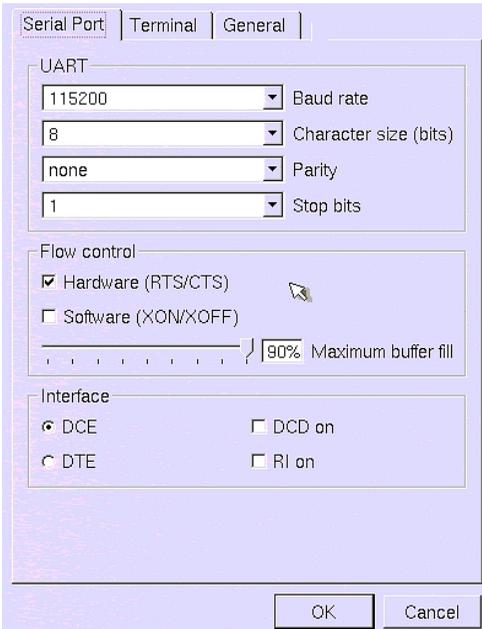
To perform the necessary configuration, open the **"Edit -> Preferences"** menu. To do so, move the mouse to the menu bar, click on the **"Edit"** item and select the **"Preferences"** item in the menu that opens.



The configuration settings that can be made in this menu are described in the following chapters.

5.1 Serial interface settings

On the **"Serial Port"** tab you can make settings that relate to the **CATPro2 VT100** serial interface. These settings should correspond to the specifications of the serial VT-100 device.



In the **"UART"** panel you can configure the RS232 interface on the **CATPro2 VT100**. Before making configuration settings in this panel, inform yourself of the

specifications of the serial VT-100 device to ensure fault-free communication between it and the **CATPro2 VT100**.

The following settings are available:

- **Baud rate**
- **Character size (bits)** (if you enter a value less than 8 you can no longer enter any special characters)
- **Parity**
- **Stop bits**

In these four scroll-down menus, select the values that suit your application.

Note: If you set up the Baud rate higher than 38400, we recommend the activation of one the two options in the panel „**Flow control**“.

In the "**Flow control**" panel you can configure the data stream of the RS232 interface.

The following settings are available:

- **Hardware (RTS/CTS)**
- **Software (XON/XOFF)**

As soon as you have selected an option, the "**Maximum buffer fill**" field is activated. In this field, set the level to which the internal buffer of the **CATPro2 VT100** may be filled before the counterpart receives a signal that the data stream should be interrupted until the buffer is again ready to receive data. This prevents a *Buffer Overflow*.

If you do not activate any of these options, it will be possible for a *Buffer Overflow* to occur. Information on whether or not there is a *Buffer Overflow* is provided in the bottom right field of the terminal window. This message disappears when there is sufficient free memory in the buffer for the incoming data stream.



In the "**Interface**" panel you can define the operating mode of the **CATPro2 VT100**. This operating mode depends on which serial connection cable is in use.

The following settings are available:

- **DCE** when using a 1:1 serial cable
- **DTE** when using a null modem cable

If you select the "DCE" option, two additional selection options are activated. These options are:

- **DCE on** indicates whether a data stream is present
- **RI on** indicates an incoming call

If necessary, select a value suitable for your serial connection.

All settings made here are accepted by clicking on the **OK** button. **Cancel** closes the menu without saving the changes and you return to the terminal window.

5.2 Terminal window settings

On the "**Terminal**" tab, you can make settings that relate to the appearance of the terminal window. In addition, you can specify to the **CATPro2 VT100** the keyboard layout with which you are working locally and how it should be implemented on the serial device (emulated).

The screenshot shows a dialog box with three tabs: "Serial Port", "Terminal", and "General". The "Terminal" tab is selected. The dialog is divided into several sections:

- Size:** A dropdown menu set to "maximum" with a "Profile" label to its right. Below it are two spinners: "Columns" set to 80 and "Lines" set to 24.
- Keyboard:** A dropdown menu set to "de (german)" with a "Layout" label to its right. Below it is another dropdown menu set to "default (XFree 4.x:x)" with an "Emulation" label to its right. At the bottom of this section is a checkbox labeled "Local echo" which is unchecked.
- Appearance:** A dropdown menu set to "default (ANSI)" with a "Color scheme" label to its right. To the right of this is a checkbox labeled "Inverse" which is unchecked. Below this are two more checkboxes: "Blinking cursor" (unchecked) and "Visible bell" (unchecked).
- Display:** Two radio buttons: "800x600" (selected) and "1024x768" (unselected).

At the bottom of the dialog are two buttons: "OK" and "Cancel".

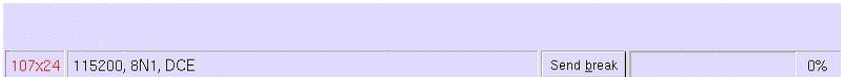
In the "**Size**" panel, you can define the size of the terminal window. The size of the terminal window is defined in columns x lines.

The following settings are available:

- **vt100 (80 x 24)**
- **vt100_wide (132 x 24)**
- **pc (80 x 25)**
- **xterm (80 x 40)**
- **maximum** (sets the terminal window to the maximum value, which depends on the resolution)
- **Custom...**

If you select the **Custom** item, the "Columns" and "Lines" fields are activated one row down. Enter the required values in these fields (maximum of 132 x 50).

If you set the terminal window to be larger than the resolution of panel "**Display**", the terminal window will automatically be adjusted to the largest possible size. The bottom left field of the terminal window shows the size of the displayed terminal window in red.



In the "**Keyboard**" panel you can define:

- the keyboard layout of your local keyboard (German, US American, French, Lat. American, Portuguese, Spanish, UK English).
- the emulation procedure with which the signals sent from the local keyboard are interpreted on the serial device. The following emulation procedures are available:
 - vt100,
 - vt420 pc,
 - linux,
 - solaris,
 - x11r5 (XFree 3.xx)
 - default (XFree 4.xx).

The setting made here depends on the emulation procedure of the serial device. Ascertain the emulation procedure with which the serial device works.

If a sent data stream is not automatically echoed by the serial device (after prompting, in the terminal window are no characters visible), activate the "**Local echo**" box.

In the Drop-Down menu „**Encoding**“ you can define, how the characters, send from the PC to the terminal, should be interpreted. In default the setting is „ISO 8859-1“. This setting is appropriate for most of the applications. However, if you work with a Windows 2003 Server-console we recommend to change the value to UTF-8 (Unicode).

In the "**Appearance**" panel you can define the appearance of the terminal window.

Select the colour scheme in which the terminal window is to be displayed in the "**Color scheme**" field.

By marking the "**Blinking cursor**" box, you instruct the terminal program to display a blinking cursor. The cursor only blinks when the terminal window is active. If you select a menu item from the menu bar, the cursor stops blinking.

By marking the "**Visible bell**" box, you instruct the terminal program to indicate that the serial device has output a warning or informational signal by flashing the screen.

By marking the "**Inverse**" box, the terminal window is displayed in the inverse of the selected colour scheme.

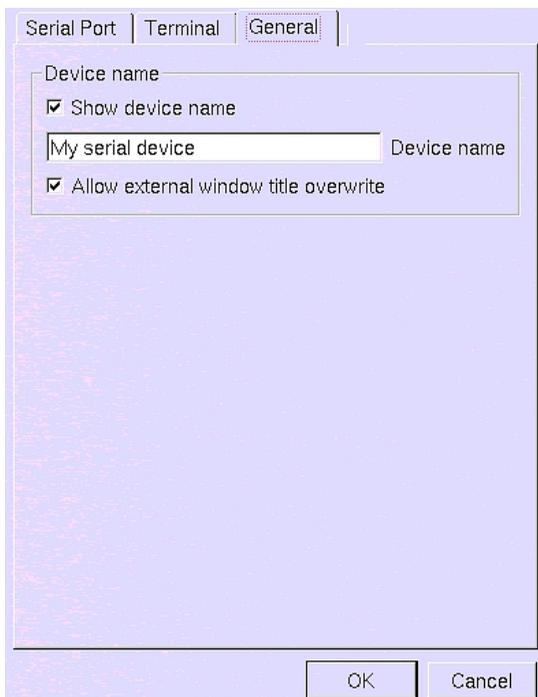
In the "**Display**" panel you can define the size of the terminal window. The following resolutions are available:

- 800 x 600
- 1024 x 768

All settings made here are accepted by clicking on the **OK** button. **Cancel** closes the menu without saving the changes and you return to the terminal window.

5.3 General settings

In the "General" tab, you can make settings that relate to the **CATPro2 VT100**.



Serial Port | Terminal | **General**

Device name

Show device name

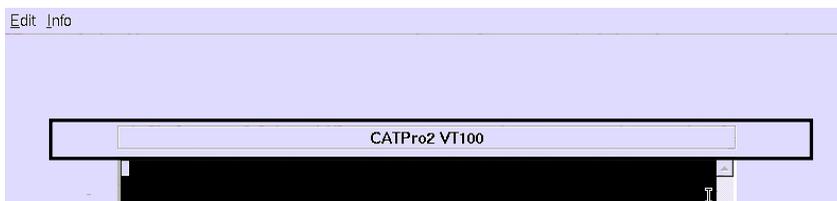
My serial device Device name

Allow external window title overwrite

OK Cancel

In the "Device name" panel, you can activate the "Device name" field by clicking on the corresponding box. In the activated field you can assign a name to the **CATPro2 VT100**.

The name you define here will be displayed in the terminal window above the text entry mask.



Instead of a device name, you can have the active directory of your VT100 device displayed in this field. To do so, mark the "**Allw external window title overwrite**" box.

All settings made here are accepted by clicking on the **OK** button. **Cancel** closes the menu without saving the changes and you return to the terminal window.

6 Additional control elements in the "Edit" menu

The "**Edit**" menu contains additional control elements.



These elements are described in this chapter:

Clear screen: Selecting this menu item clears the contents of the terminal window.

Clear selection: Using the mouse, you can mark letters, words, lines or even whole sections within a text mask of the terminal window. This marking makes it possible to insert the marked area at the current position of the cursor (**copying function**).

You can use the "**Clear selection**" menu item to unmark the selection marked with the mouse. The content of the clipboard is not deleted and the copying procedure can still be performed.

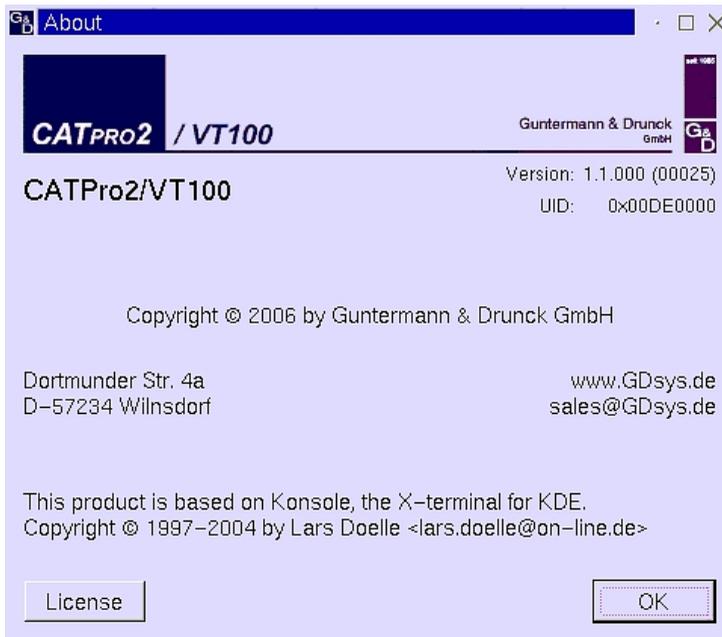
Paste selection: With this menu item you can insert the selection marked with the mouse at the current position of the cursor.

7 "Info" menu

The **"Info"** menu contains information on the **CATPro2 VT100** in use.



Click on the **"About"** item. The following window opens:



The **"License"** button provides license information on the **CATPro2 VT100** in use. Clicking on the **"OK"** button closes the window and you return to the terminal window.

8 Default-Values

In this chapter you find the default values of the **CATPRO2-VT100** from the **Preferences menu**.

Menü	Abschnitt	Zeile	Default-Wert
Serial Port	UART	Baud rate	38400
		Character size	8
		Parity	None
		Stop bits	1
	Flow control	Hardware	Off
		Software	Off
		Maximum buffer fill	90
	Interface	DCE	On
		DTE	Off
		DCD on	Off
RI on		Off	
Terminal	Size	Profile	vt100
		Columns	80
		Lines	24
	Keyboard/Char.	Layout	de
		Emulation	vt100
		Local echo	Off
		Encoding	ISO 8859-1 (def..)
	Appearance	Color scheme	default (ANSI)
		Inverse	Off
		Blinking cursor	Off
Visible bell		Off	
Display	800 x 600	On	
	1024 x 768	Off	
General	Device name	Show device name	Off
		Device name	My serial device
		Allow external window..	Off

To reconstitute the default settings, open the menu „Preferences“ and than the tab „**General**“.



Klick the button „Reset to defaults“. In the following window click on the button „OK“.



All default settings have been reconstituted as described in this chapter.

9 Update of the CATPro2 VT100

Via the service interface of the **CATPRO2-VT100** the firmware can be updated.

Therefore you need:

- a serial cabel (SUB-D 9-jack -> stereo jack) for the update process of the **CATPRO2-VT100** firmware
- an Update-Wizard for the **CATPRO2-VT100** firmware

For updating the **CATPRO2-VT100** firmware proceed as follows:

Copy the file „CATpro2VT100Wizard_x_x_xxx_xxxxx.exe“ in a folder on your computer. This folder has to be chosen by you and is needed for the upcoming update procedure.

Copy the file „msvc71.dll“ & "msvcr71.dll" in the same folder, in which you have copied the CATpro2VT100Wizard.

Start the self-extracting file „CATpro2VT100Wizard_x_x_xxx_xxxxx.exe“ with a double-click.

Follow the instructions.

10 Technical data

<u>Power supply:</u>	+12 VDC, miniDIN4
<u>Connectors:</u>	SUB-D 9-pin to RS232C RJ45 socket (transmission) 2.5 mm jack connector (service socket) miniDIN4 (power supply)
<u>Baud rates:</u>	50 – 115200
<u>Parity:</u>	none, even, uneven
<u>Data bits:</u>	5 to 8
<u>Stop bits:</u>	1, 2
<u>Handshake:</u>	none, hardware, Xon/Xoff
<u>Display size:</u>	24 x 80 (default) Free adjustable up to 139 x 48 characters
<u>Buffer size:</u>	2000 lines
<u>Housing:</u>	105 x 84 x 26, aluminium

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