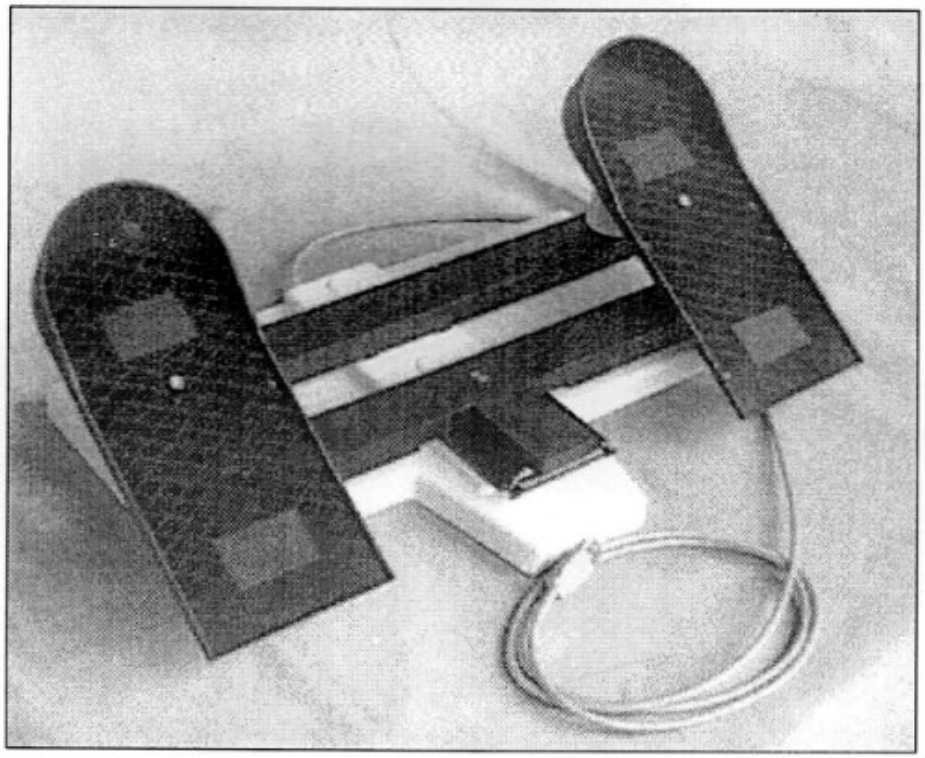
User manual SIMPED-vario / proUSB
translated by google and a little by me from German into English.
No warranty for accuracy is given by me or google.. :-)
NOTE: I have not spend energy on the configuration pages of old flightsims.

SIMPED-vario/proUSB



Benutzerhandbuch

original frontpage of user manual

Table of contents

Utility model number: 295 06 098.0
PHILIPS

1. SIMPED-vario structure and special features

By purchasing the PC Simulator pedal SIMPED-vario/proUSB
you have a future-oriented operating device of the top class
purchased for your computer
The company dhas-electronic congratulates you with that !

SIMPED-vario/proUSB is constructed in such a way that it has greatest possible
Variety of uses östen claims im Ease of use is enough.
You can do this by turning the footplates around Pedal in
Seconds according to your personal ideas redesign.

One fully novel, innovative electronics with USB Interface allows you with the help of a non-ontact Sensor ensure intuitive operation of the selected functions and guarantees at the same time stable behavior without any wear and tear.
The 2 m long connection cable allows you to connect SIMPED
vario/proUSB on type “A” USB ports (see
Section 2. "Connecting to the USB port").

2 photos

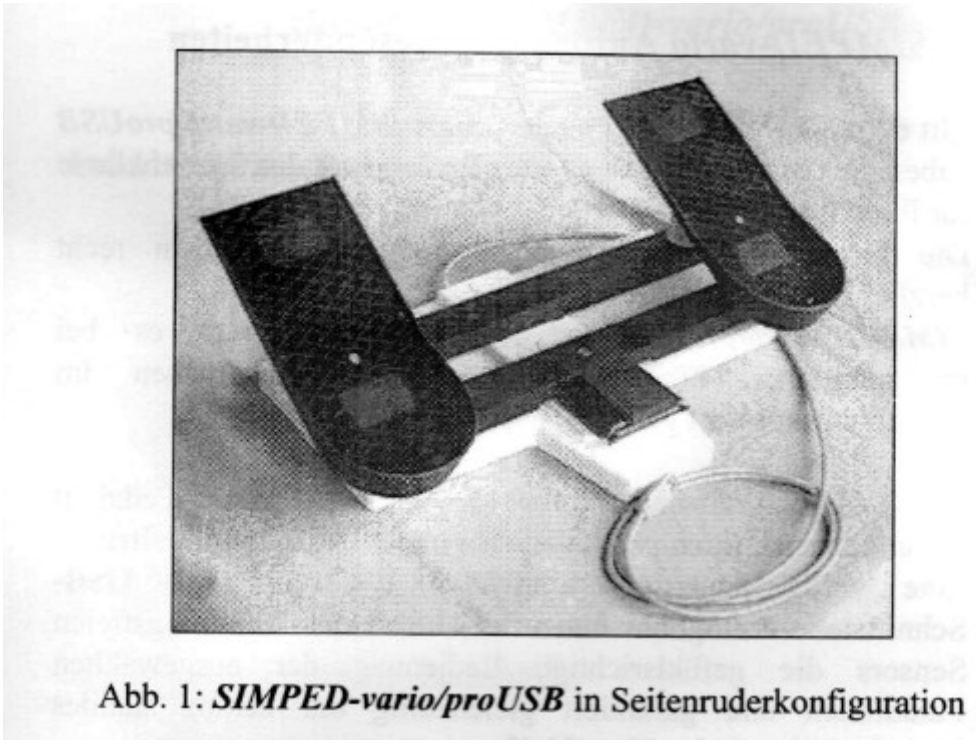


Abb. 1: ***SIMPED-vario/proUSB*** in Seitenruderkonfiguration

Fig. 1: SIMPED-vario/proUSB in Rudder configuration

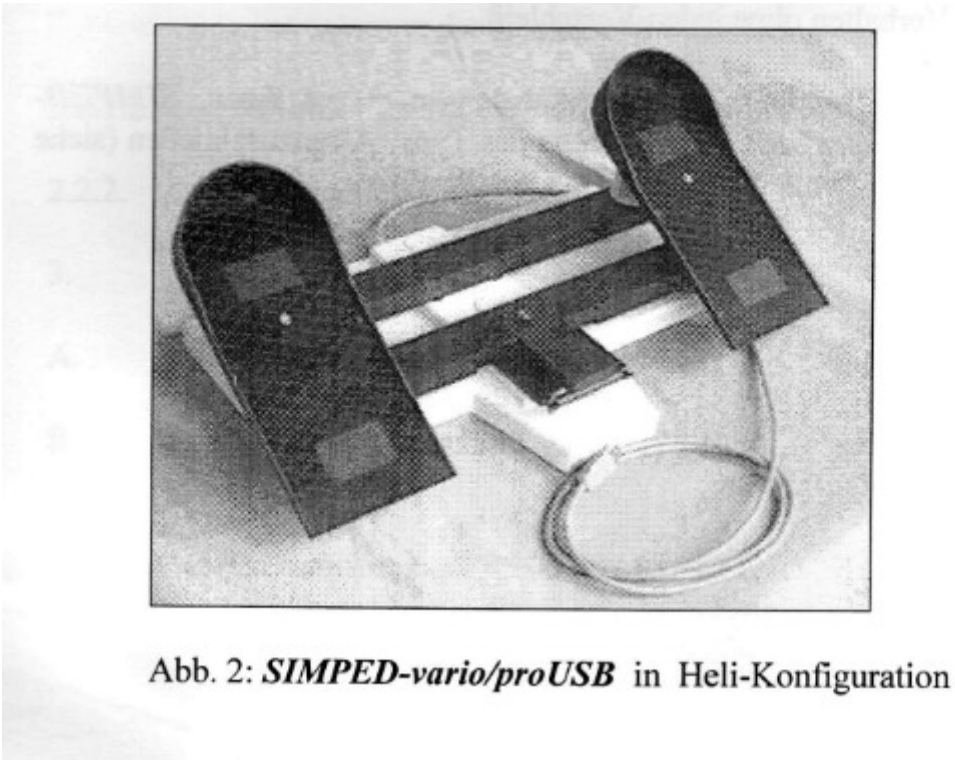


Abb. 2: ***SIMPED-vario/proUSB*** in Heli-Konfiguration

Abb. 2: SIMPED-vario/proUSB in Helicopter-configuration

Caution !! STRONG magnetic field !
The position of the pedals is determined by the system SIMPED-vario with
a **hard ferrite permanent magnet.**
Therefore, make sure that in the immediate vicinity (minimum distance approx. 10 cm) no magnetic sensitive data carrier are kept or stored, (credit cards etc)
as this could cause damage on stored data.

Fixing SIMPED-vario on the floor is done with four Velcro pads (assuming you have a carpet…)

If in need of additional fastenings, use the holes in the base plate for fastening of the feet.

2. Connection and setting

2.1. Connection to the USB port

The pedal can be used without any further preparation any one
free USB port of type “A”. The USB Interface is in full scope "hot-pluggable", i.e. at
connection and also when disconnecting the pedal the computer does NOT need to be switched off.

When the SIMPED-vario/proUSB is connected for the first time, a more or less automatic
Installation of the necessary driver software will start.
With older WINDOWS operating systems the individual Steps of the Installation are displayed on the monitor and the user will be asked several times for confirmation. It may be possible that the WINDOWS system CD-Rom is required for reloading certain software components. This does not occur with newer versions of WINDOWS. At the end of the installation process automatically the configuration and calibration of the Simped USB pedals will take place.
The pedal MUST be in the rest position (middle position). A brief flash of the Status LEDs in the front of the pedal base plate shows the successful completion of this process.

SIMPED-vario/proUSB is called "HID Game Controllers: 3- Axis 3-button joystick" when configured and is registered in the lists “Game controller” or “device manager” of the Control Panel with this designation.
In the Window "Game controller" this entry can be renamed; e.g.: in
"HID Game Controller: SIMPED-vario (USB)"

By all other connection procedures at the same USB port (Hub) only a USB enumeration takes place one more time in relation with the automatic calibration of the Pedal center position. This process only takes a fraction of a time second and the status is indicated by a brief flash of the LEDs immediately after plugging in the connection cable.

2.1.1. Status display and Characteristic curve programming

The SIMPED-vario/proUSB has two LEDs and a micro button installed in the front part (Fig.: 3). At the Switch-on process the LEDs light up for about 1.5 seconds after putting on the Operating voltage and then switch off again. During this phase the sensor is switched to the Middle position calibrated, although of course the pedal may NOT be operated. The LEDs switching off indicates that the calibration has been successfully completed. Only now can the pedal be used.

If the right pedal plate is fully depressed, the LEDS light up also. This shows that the direction of rotation is correct and the internal calibration of the Final deflections are in normal range.

The SIMPED-vario/proUSB has two LEDs additionally still that show which of the three possible control characteristics with the recessed micro button has been activated.

The button can be operated using a matchstick (**no sharp objects such as Needles or similar !!**). The active control setting when switching off is saved, the next time the pedals is turned on the setting is automatically restored.

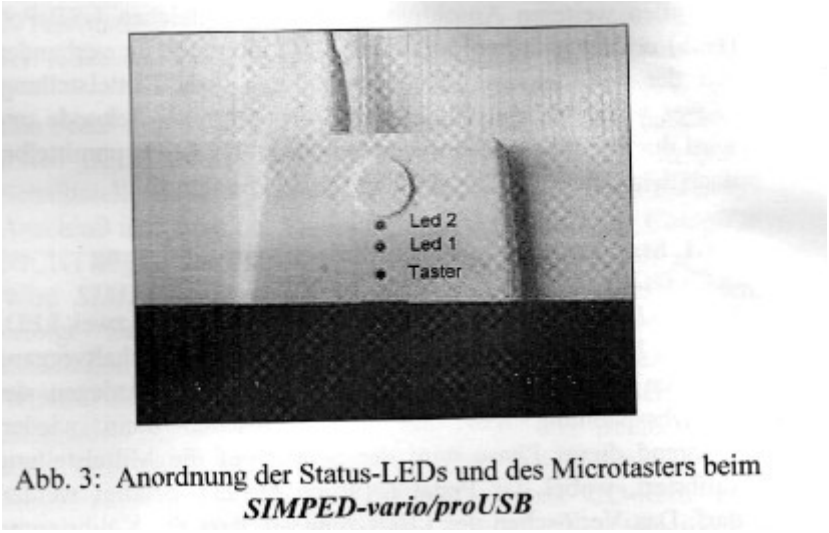
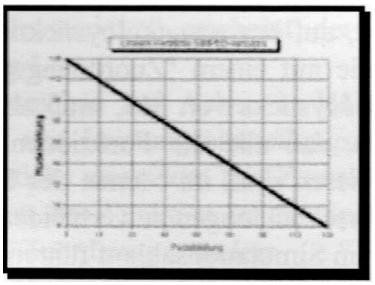


Abb. 3: Anordnung der Status-LEDs und des Microtasters beim ***SIMPED-vario/proUSB***

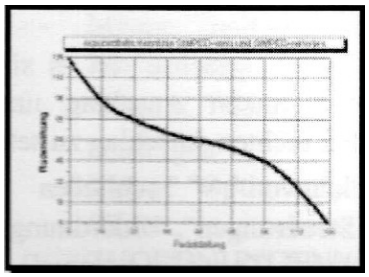
Fig. 3: Arrangement of the status LEDs and the Micro buttons of the SIMPED-vario/ proUSB

The following applies to the characteristic of the response curve selection:

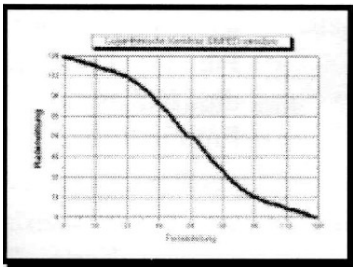
LED 1 off
} === > linear characteristic
LED 2 off



LED 1 on
} === > exponential characteristic
LED 2 off



LED 1 off
} === > logarithmic characteristic curve
LED 2 on



Also compare the graphic representations of the individual control characteristics in Fig. 4.

2.2. Flight simulator configuration

2.2.1. Configuration aids

This will be done during installation SIMPED-vario/proUSB as "HID Game Controller: 3-axis 3-button" configured, but only the axis 4 as Rudder function is activated. The pedal will then appear under this name also in Flight simulator menu. Now to get an exact one Function of the Rudder control in the flight simulator achieved, it is necessary to configure this. Here the aim is to map the individual functions (axes) for controlling the aircraft to the corresponding control devices (joystick and pedal).

With the under 2.2.2. described manual Configuration flows often cause problems for PC newcomers and Flight simulator, this stands in the way of a speedy success.
To alleviate problems somewhat and above all in the beginning dhs-electronic offers to make getting started easier find with this Manual a diskette on which you can find the Flight simulators FS 98 and FS 2000 specific example configurations
We have 8 different ones for you Configurations, accordingly different combinations of Control devices prepared. All example configurations with the label "Cessna" on end, are of course also for others Fixed-wing aircraft etc Helicopter suitable. If you additionally for the the Helicopter simulation add one Collective control_(pitch) on the “normal” analog game port, the Configurations ending in “Heli” are usable.

2.2.1.1. Activation of the configuration aids

Requirement for the exact one functioning of the Configuration assistance is compliance with the Identifier of individual control devices. The joystick always has to have the identifier 1
the SIMPED-vario has the identifier 2 and possibly the pitch control used has the identifier 3

With USB devices this identification assignment is easy to achieve by using them
in the desired order. With Gameport devices the driver must also be installed and activated before the next device is plugged in. In case of doubt, the identifier of the individual Devices in the Control Panel under "Game Controller, Advanced Map" must be checked and changed if necessary.
Open to activate the configuration files You first using the explorer provided Floppy disk "Configs etc. Profiles".
Three directories appear "Configs 2000".
"Configs 98" and "Profiles". then open the directory for your flight simulator e.g. Configs 2000 for Flight simulator "MS Flight Simulator 2000". You will find 8 more directories,
from which you choose the one that suits your connected control devices. The short names have the following Meaning:

Gamport-Joy	-> alle Gameport Joysticks
Cessna	-> all simulations
SimpedYKab	-> Simped-vario for Game port connection
SW-FFB1	-> SideWinder Force Feedback Pro 1
Simped(FFB)	-> Simped-Pedal mit Interface Sim-FFB
USB-Joy	-> alle USB-Joysticks wie z.B. SideWinder Precision Pro 1 USB or SideWinder Precision 2
Heli	→ Config. for additional pitch control

Under each of these directories you will find only one File called "Fs2000.cfg" (or "Fltsim98.cfg" for the Flight Simulator 98). This file must Now be placed in the Main directory of your flight simulator.
Copy the name "Fs2000" ("Fs98"). It will indicate that an already existing file "Fs2000.cfg" ("Fltsim98.cfg") is to be overwritten, which contains the old Configuration settings of your flight simulator. If you want to save these settings for later: to secure reconstruction, you have to use the old one Fs2000.cfg (Fltsim98.cfg) before you overwrite copy / put them in another secure directory
. Then the new Fs2000.cfg (FItsim98.cfg) can be copied in the main directory Fs2000 (Fs98)
You can start the flight simulator and the Control devices are set up correctly without any further settings configuration.

2.2,1.2.
Profiles for SideWinder joysticks You can find it on the enclosed diskette directory
"Profiles" some setting suggestions for the popular Side Winder Joysticks.
Sw-ffb1 -> SideWinder Force Feedback Pro 1
Sw-Precisionl -> SideWinder Precision Pro (USB)
Sw-Precision2 -> SideWinder Precision 2 (USB)
Copy these into the respective directory "Profiles" the corresponding SideWinder center and select for the control devices the appropriate profiles. This means that
Joystick characteristics and button assignments assigned.
which we, at least for getting started with Flight simulation, for
keep it sensible
Important NOTE:
For the smooth functioning of the Joystick profile must It is essential to ensure that the Function "Num Lock" on the computer keyboard is NOT active.

2.2.2. Manual configuration

With a manual configuration you can Of course, at any time the ones we suggested Example configurations according to Thren change personal ideas or expand. The Manual configuration procedure should therefore be here briefly presented using the example of FS 2000

First connect the joystick (for game port Joysticks possibly activate drivers) then that pedal connect. If this order is followed, The joystick gets the "1st gaming device". Identifier 1 and the pedal as the "2nd gaming device" the identifier 2. The Identifier can in "Control Panel" "Game Controller", "Advanced" card checked or be changed

Start the flight simulator and take any flight choose Click on the “Aircraft” menu and "level of reality" Settings : choose Deactivate "Auto rudder" and press confirm Menu "Options", "Controls", "Assignments ..

open; A window "CONTROLS- ASSIGNMENTS"

Select “Joystick axes” card The joystick appears under “Joystick type”. the Identifier 1 Aileron axis on axis 1, elevator axis on Axis 2 and power adjustment axis on axisc 3 assign the joystick; The assignment is made through Click on the function in the "Axis" column then type “Assignment change " click and corresponding control on the joystick move.

The "rudder axis" function must be free remain. If there is an entry there, it must this one with the "Delete joystick assignment" button. removed become. Then under “Joystick type” the HID game controller select and the function in the same way Assign rudder axis to axis 4. All others Functions must remain free. Close the window by clicking "M". Menu "Options", "Controls", "Sensitivity.." open; it appears a Window "SENSITIVITY" Select “Joystick” card Selection "Advanced" click and at Sensitivities to around 80% as well as the Zero zones set to 1 line above zero

For the "power adjustment axis" it is sensible the zero zone to the left stop and the Sensitivity to the right stop set.

Close the window by clicking "V". With the menu "Options", "Controls", “Assignments can be used on the “Button/Buttons” card. maybe still selected actions that default to the Computer keyboard assigned to preferred joystick buttons be placed For joysticks that have an “assignment profile” work, like the SideWinder joysticks from MS, but must definitely on it

Care must be taken to ensure that all the functions included in the Profile of Joysticks are assigned in the menu Flight simulator open stay to avoid overlaps too significant this can lead to delays in the simulation process awkward At the FS98 is one similar Configuration procedure necessary. Auto coordination (Connection of aileron and rudder)

can here nater. nater dem menus "Aircraft". "Aircraft settings..'", “Auto coordination” switched off become. The axis assignment is done under the menu "Options", "Custom controls..","Assignments..." and the Setting the sensitivities below "Sensitivity..."

3. Appendix A. SIMPED-vario technical data

The graphical representation in Figure 4 shows the course of the Control characteristics that apply to SIMPED-vario/proUSB. In the table below the general technical Data the Pedal family SIMPED-vario summarized.

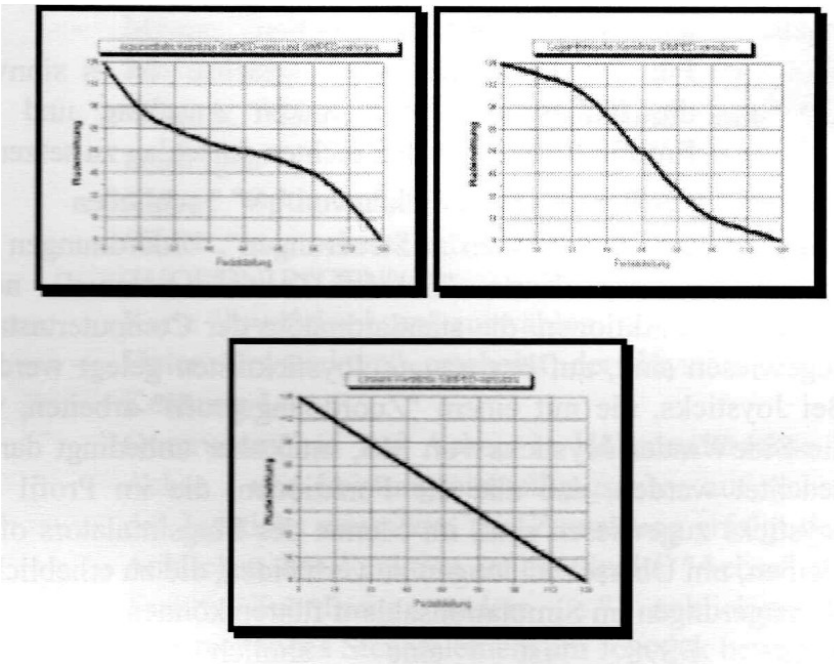


Abb. 4: Doppelt exponentielle, doppelt logarithmische und lineare Kennlinie von ***SIMPED-vario/proUSB***

Fig. 4: Double exponential, double logarithmic and linear Get to know SIMPED-vario/proUSB

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Table

Parameter	Symbol	min	typ	max	Einheit
Betriebsspannung	U_B	+ 4,5	+ 5	+ 5,5	V
Stromaufnahme	I_B	20	25	30	mA
Abmessungen	l * b * h		450 * 360 * 150		mm
Ausschlagswinkel	α		± 35		°
Neutralisierungsfehler	$\Delta\alpha$		< 0,1		%
Trimmbereich			----		%
Symmetriefehler	Δ		0,1	0,5	%
Anstieg exponentielle Steuerkennlinie					
Neutralbereich	a		0,3		
Endausschlag	a		1,4		
Einsatztemperatur	T	5	22	40	°C
Temperaturdrift	ΔT		< 0,01		%/°C
Masse	m		2500		g

B. SIMPED-vario disclaimer

The construction of SIMPED-vario is like this designed that at more appropriately, the instructions in this manual more appropriate Handling, on the computer, on which the pedal is used, as well as its peripheral facilities, no damage whatsoever can be caused. The electronics of SIMPED vario corresponds fully to the curopawide valid Legislation for electromagnetic compatibility (EMC). It is therefore impossible to eat others electronic or electrical devices through the use of SIMPED-vario in their function can be influenced or disrupted can. The Avoiding damage to documents on which STMPED rario is used by the om manufacturer suggested mounting options fully
at the discretion of the user. The Manufacturer can therefore for this, as well as for any damage caused maybe with normal Operation even if handled improperly of Turn on the SIMPED-vario simulator pedals, accept no liability whatsoever.

There is a statutory warranty obligation of 6 months.

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