

Software Manual

VisuNet EX1 (Panel-PC)
PC415, PC419

VisuNet GMP (Panel-PC)
PC219, PC222

VisuNet EX2 GMP (Panel-PC)
PC3719

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1 Important information

1.1 General information

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1.2 Safety instructions

- ⇒ These devices are only allowed to be installed and operated by trained and qualified personnel who have received suitable instruction in their use.
- ⇒ These devices represent state-of-art technology. They are only allowed to be connected to systems that have been approved by Pepperl+Fuchs GmbH.
- ⇒ Never open the devices yourself. They are only allowed to be opened by authorized Pepperl+Fuchs GmbH personnel.
Pepperl+Fuchs GmbH is not liable for any resulting damages.
- ⇒ The devices are not allowed to be modified or otherwise altered in any way.
Pepperl+Fuchs GmbH is not liable for any resulting damages.
- ⇒ Please study the “*Technical Manual*” carefully prior to starting up the devices.
- ⇒ The most recent version of the “*Technical Manual*” is always valid. It is available on the Support page of our web site (Internet address: <http://www.pepperl-fuchs.com>).
- ⇒ The operating voltage of the devices **must not exceed the limits** indicated in the “*Technical Manual*” under **Technical data**.
In the event of failure to comply, **Pepperl+Fuchs GmbH is not liable for any resulting damages.**
- ⇒ The relevant **specifications for hazardous areas** (e.g. EN 50178, EN 60079, EN 50014 - 50039) and **accident prevention regulations** (e.g. UVV) must be observed.

The technical data specified for the hazardous area corresponds to the certified values for the European Ex approval. The user is responsible for ensuring that the devices are suitable for their intended application and for the prevailing ambient conditions. No warranty can be given by Pepperl+Fuchs GmbH in this connection.

Data subject to change without notice

2 Software VisuNet PC

2.1 Delivery status of the product line PC

Drive C: with operating system Windows XP

With P+F bootmenu and Test und Recovery Tools

1	Operating System
2	Test and Recovery Tools

All necessary drivers are preinstalled.

On Screen keyboard

To activate the on Screen keyboard:

Start / Pepperl + Fuchs / On Screen keyboard



Scaling On Screen keyboards:

Tab: Settings
zoom +/-

To change the size of the On Screen keyboards:

Tab: Settings
zoom +/-

2.2 How to install an operating system

This section describes how to install an operating system on one VisuNet PC.

An external USB CD-ROM (available as an accessory) is needed in order to install an operating system. An external keyboard and mouse are also useful.

- (1) Connect the CD-ROM drive to the port provided for this purpose on the VisuNet PC .
- (2) Specify the CD-ROM as the boot device. To do so, start the PC and press while the startup message is displayed the key to come to the BIOS. Under <Advanced BIOS Features> you can then set on <First Boot Device> the <USB-CDROM>. The <Second Boot Device> should be set to <HDD-0>. Press <F10> to exit the BIOS and save your changes.
- (3) Insert the installation CD in the CD-ROM drive and reboot the device. The message <Boot CD> appears on the display and the installation routine begins.
- (4) Follow the instructions provided by the installation routine. Install the operating system on the first partition of your hard disk.
- (5) Install the system drivers (Windows 2000 and Windows XP only).

Important: If this is a new installation, the partition data for the hard drives should not be altered because otherwise the functions described in the section on test and recovery tools will no longer be available. **In particular, you will be unable to carry out a factory reset!**

Note:

- The installed operating system must support USB CD-ROM drives (e.g. Windows 2000 SP 3).
- Install your operating system onto the first partition of the hard disk (20 GB).
- If you want to access this partition from more than one operating system, you should use the FAT32 LBA file system.
- If you need to enter a large amount of text during the installation procedure, we recommend that you connect an external keyboard. If you need to enter special characters during the installation procedure (e.g. network access passwords), we recommend that you connect an external keyboard.
- The touchscreen is not available until you have installed the driver. If you need to use a mouse during the installation procedure, you must connect an external one.

Useful Windows shortcuts:

Activate menu:	Alt
Scroll / select entry:	Arrow keys
Select entry:	Space / Enter
Shift input focus:	Tab
Activate application:	Alt+tab
Execute default action for selected entry:	Enter (usually File Open)
Close window / exit Windows:	Alt+F4

2.3 How to install system driver and Tools

After installing the operating system on the VisuNet PC you have to install under *Windows 2000* and *Windows XP Professional* the supplied driver from the installation-CD.

Note: By systems of *Pepperl + Fuchs* which are supplied with a operating system the suitable drivers and Tools are pre-installed.

First, insert the CD in your drive. After specifying a language, you can select <VisuNet> and <Software> to go to the latest drivers. You can also find the system driver and tools described below on our website or -on a preinstalled system- in the folder `c:\OEM`.

Note: Depending on the operation system it may be, that you get the message that this driver was not certified by Microsoft. The driver was tested and can be installed without hesitation.

2.3.1 0 - BIOS

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to any location.
- Read the file called `readme.txt` for more information about using `awdf flash.exe`.

2.3.2 1 - Intel Chipset

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Select <Download> by <driver for chipset> and save the ZIP file on the local hard disc.
- Un'zip the file and start subsequently <infinst_enu.exe>.
- Follow the instructions of the installation routine, select the point <Quick Installation> .
- To activate the driver the system must be rebooted.

2.3.3 2 - Touch Screen Controller

2.3.3.1 Installation

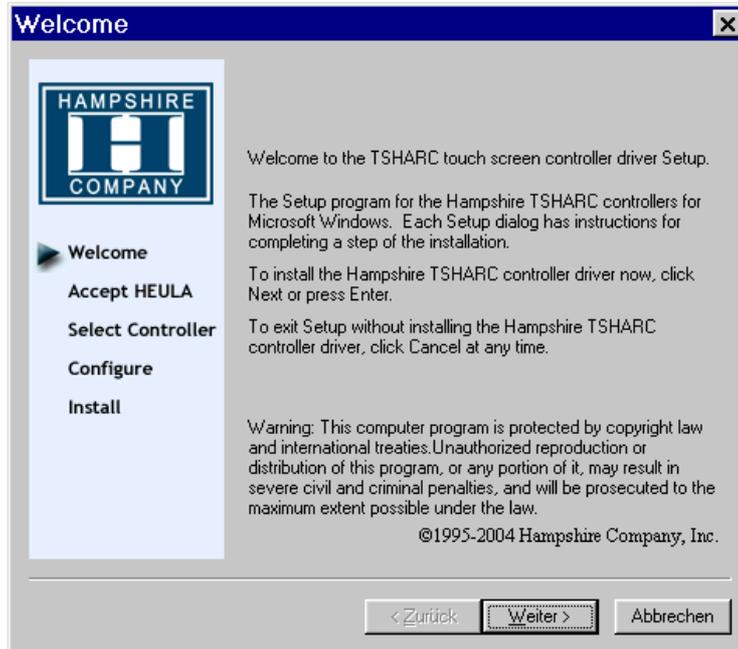
- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Start the installation with the call < UniWinDriver620cs.EXE >
- Follow the instructions of the installation routine.
- Select for <controller type> <12 or 10 bit controller> and for <controller interface> <USB>.
- To activate the driver the system must be rebooted.
-

Important: If you encounter any problems when you attempt to install the controller, you must remove the driver first. After removing the driver, you must then shut down your computer and switch it off briefly (the "ON" LED must go out). Then try running the installation again as described above.

Detailed Installation

Select operating system **Windows 95, 98, ME, 2000 XP**

- The "Welcome"- screen displayed



→ Click „next“

- Software license agreement



- When you click "I accept...", the blue background disappears and the "Next" button is activated
- Click "Next"

- The "Select Controller" dialog box is opened.



- ➔ Select manual "12 or 10 bit Controller / USB).
- ➔ Click the – Autodetect – button
- ➔ Continue the installation routine.
- ➔ When the installation routine has finished, your computer is rebooted.

2.3.3.2 **Uninstalling the driver software WIN 9x, ME, 2000, XP**

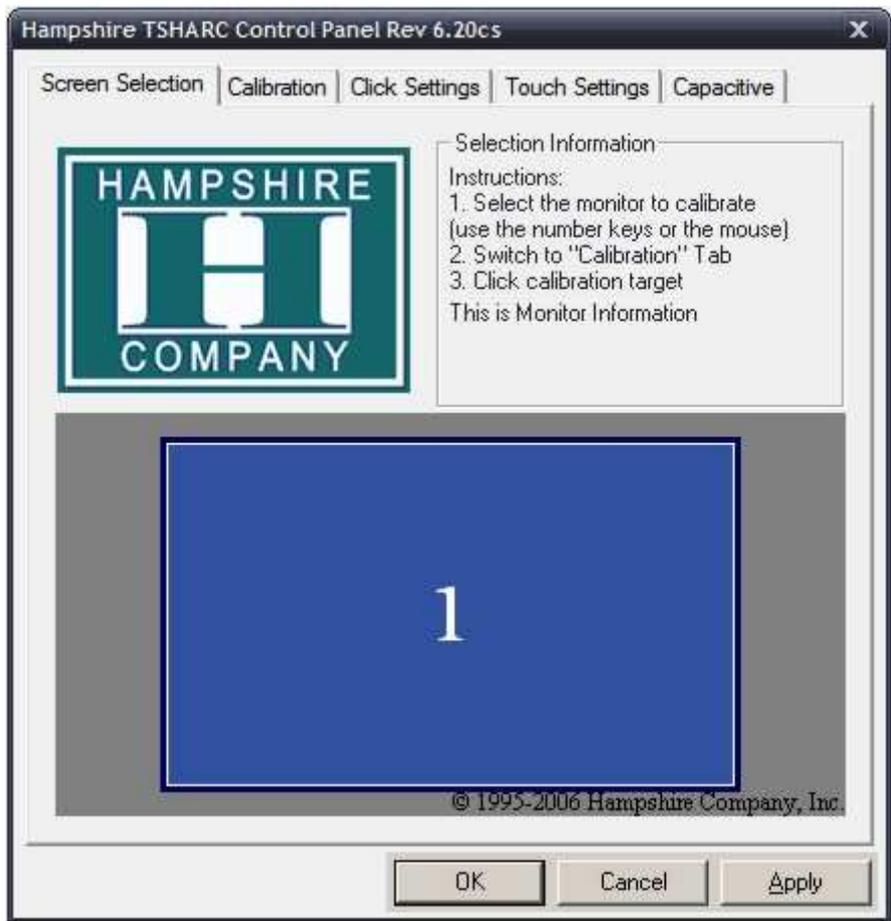
Start the program manually in *Windows Explorer*:

- ➔ Select installation directory.Default
- ➔ C:\program\TSHARC
- ➔ Start tsun.exe
- ➔ Confirm "yes"
- ➔ Accomplish a restart

2.3.3.3 Calibration program

	For calibration the user rights of an administrator are necessary!
---	--

The calibration program opens with the Screen Selection tab and starts to set the calibration points after a few seconds. You must touch each point in turn.



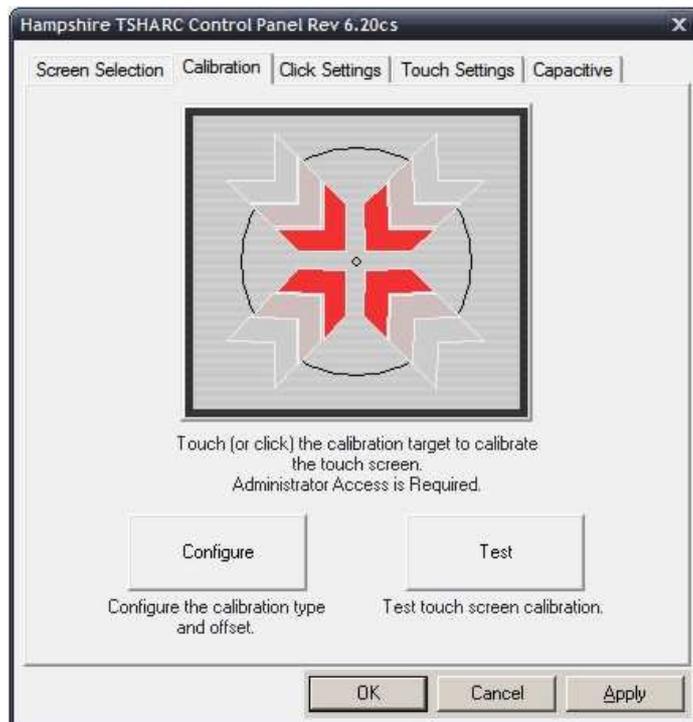
Setting the touch functions

The touch function settings are specified on six tabs. Confirm all changes to the set values by clicking the "Apply" button.

(The settings shown here are the recommended ones.)

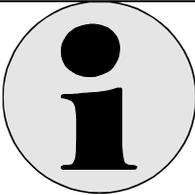
Click "OK" to exit the calibration program.

The tabs are explained on the next few pages. Each time you enter a new setting, you must click "Apply" in order to save it!

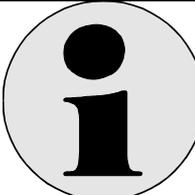


- "Calibration Options" tab
You can select the various calibration options on this tab and recalibrate the touch screen.

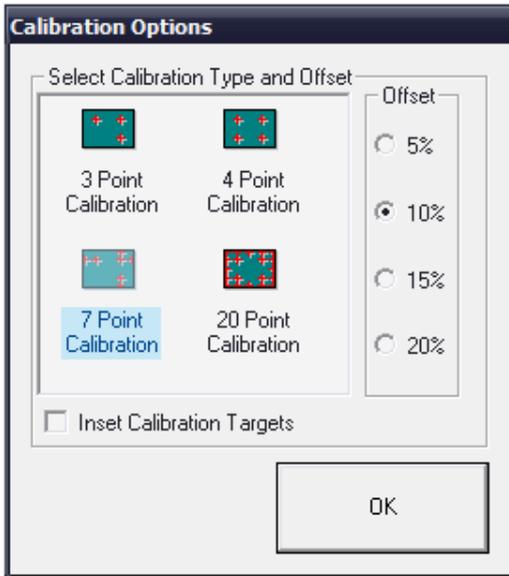
→ Click "Configure" to open a popup menu in which you can set the number of calibration points and their distance to the edge of screen (offset).

	<p>Note: For the largest accuracy calibrate as much points as possible with small offset.</p>
---	--

→ Click the large calibration target to start the calibration program.

	<p>Note: With diagonal view to the display a misalignment between fingers and calibration point (parallax error) arises.</p>
---	---

→ Click "Test" to test the calibration.



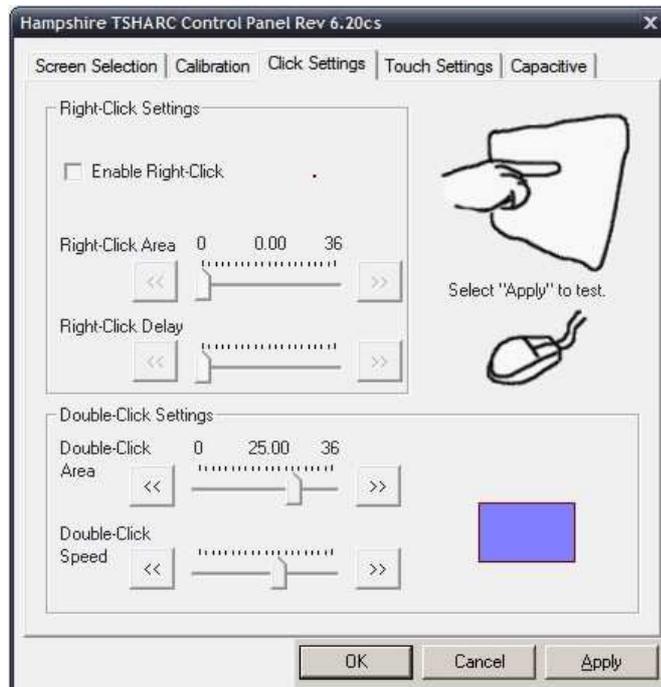
- "Click Settings" tab

You can edit the double click settings on this tab.

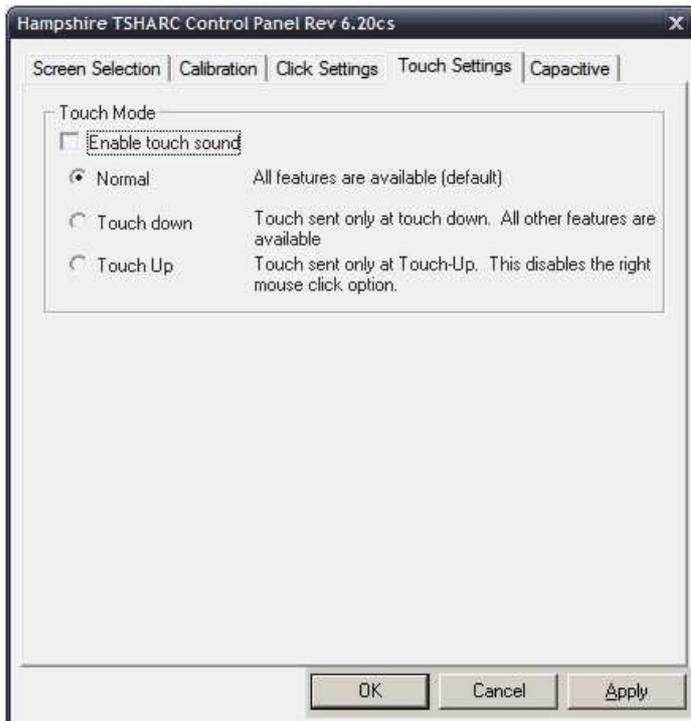
→ The box in the top left (Right Click Emulation) initiates a mouse "right click". Touching the same point on the screen for a predefined period of time is interpreted as a right click. You can set the amount of time needed to produce a right click event with the slider in this box.

→ You can set the double click time and define the event area (the area within which two clicks are necessary to count as a double click) in the bottom box.

You can check your settings in the "hand" box.

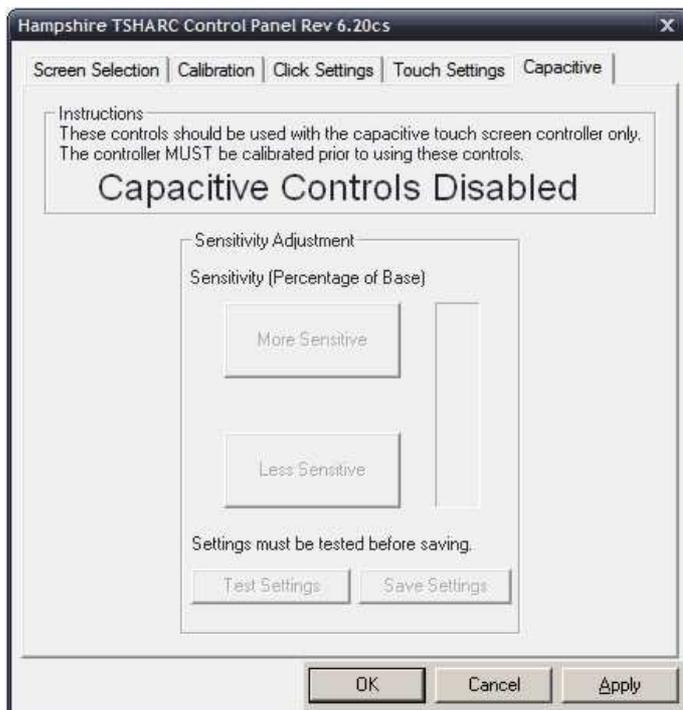


- "Touch Settings" tab



- "Capacitive" tab

- Not required for the VisuNet PC



2.3.4 3 - Display Adapter

- Click <DOWNLOAD> and save the file on your local hard drive.
- Follow the instructions of the installation routine.
- To activate the driver the system must be rebooted.

2.3.5 4 - Network Adapter

- Click <DOWNLOAD> and save the file on your local hard drive.
- Follow the instructions of the installation routine.
- To activate the driver the system must be rebooted

2.3.6 5 – USB Adapter

- Click <DOWNLOAD> and save the file on your local hard drive.
- Follow the instructions of the installation routine
- To activate the driver the system must be rebooted.

2.3.7 6 – Sound Card

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to any location and start the installation by double clicking <WDM_A385.exe> in the <default> subdirectory.
- Follow the instructions of the installation routine
- To activate the driver the system must be rebooted.

2.3.8 7 – USB Serial Port Driver

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to c:\temp.
- To install the driver, open the Device Manager and double click <USB Serial Port>. Then update the driver by specifying the driver path: <c:\temp>.
- Follow the instructions of the installation routine.
- Repeat the procedure and install the driver a second time.
- To activate the driver the system must be rebooted.

2.3.9 8 – Keyboard Controller

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to any location.

2.3.109 – Auxiliary Controller

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to any location.

2.3.11 10 – WLAN

- Make sure USB2.0 support is deactivated in the BIOS.
- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to any location.
- Start the installation by double clicking utility.exe.
- Follow the instructions in the installation routine (don't connect the device until you are prompted to do so).
- Refer to the PDF manual provided on the CD for more information about the installation procedure.

2.3.12 11 – Storage

Drivers and tools for the (SSD) drive. Please take the time to read the documentation supplied with the system before you install any drivers or tools as well as for more information. You need a PDF reader in order to read the documentation.

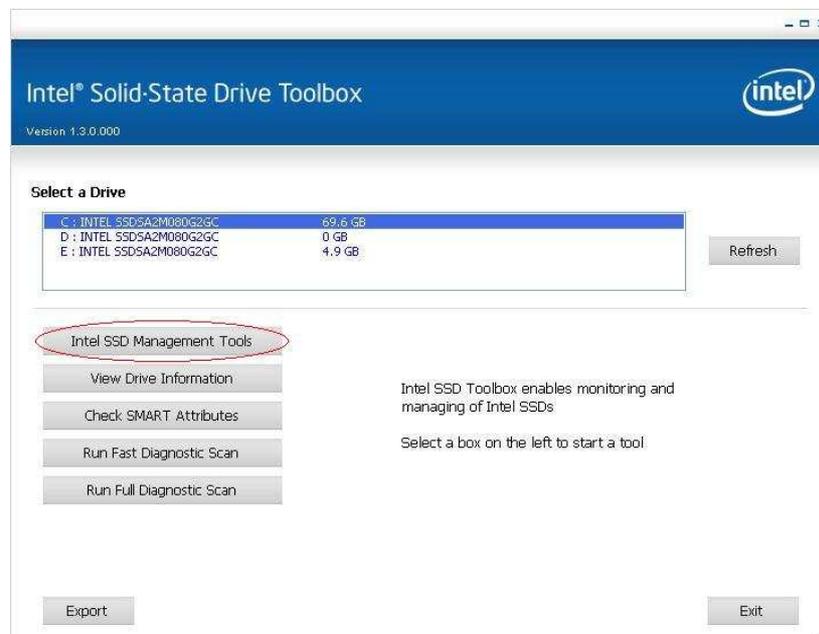
2.3.12.1 Configuration of the schedulers for VisuNet PCs with Intel Solid State Drives

If your device is a Intel solid state drive (SSD) as a data storage medium we recommend to make the feature of a scheduler on Windows XP to provide a correct and optimal operating of the data storage.

For this start Intel SSD Toolbox:



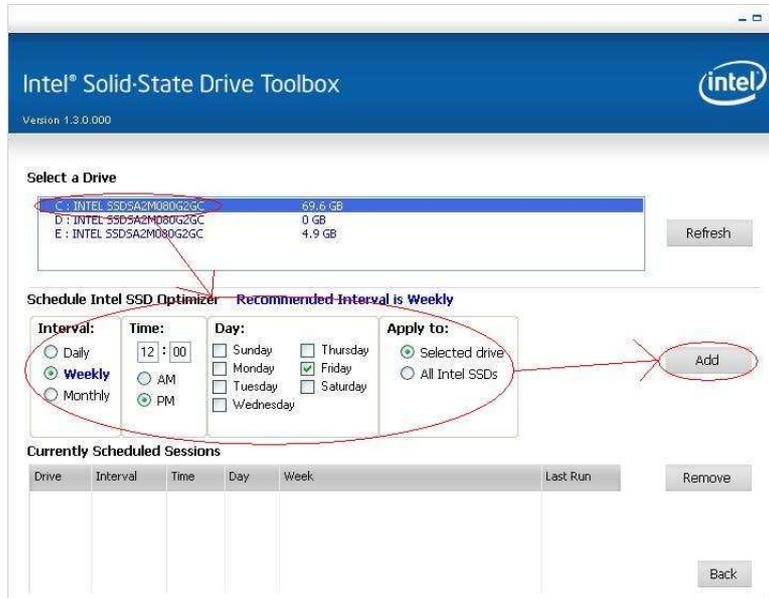
After some seconds delay you see the following window:



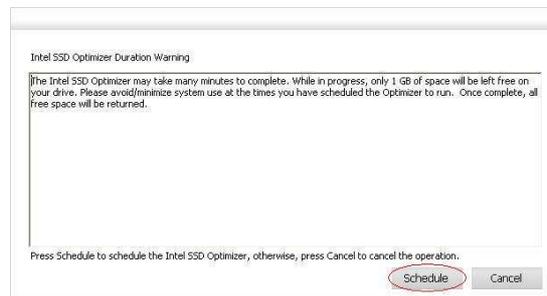
Click to *Intel SSD Management Tools*, and in the following window

- Select a Drive: Select the drive C:

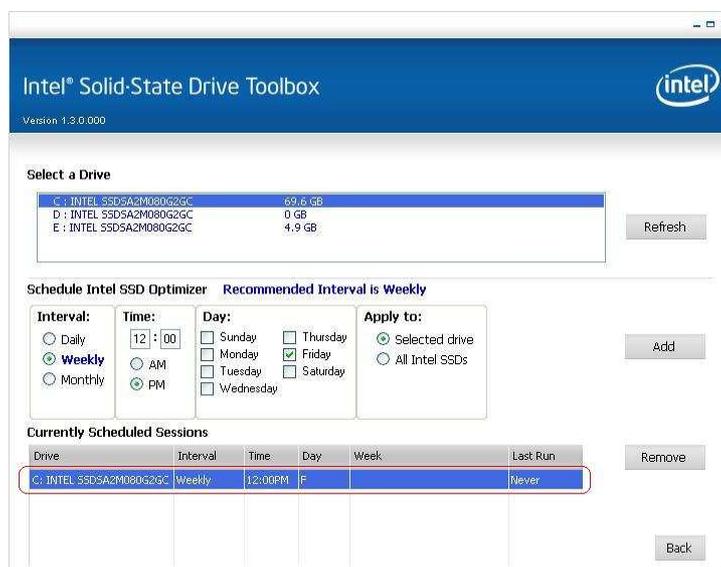
2. under *Schedule Intel SSD Optimizer* add the following adjustments (for example):
Interval: Weekly
Time: 12:00 PM
Day: Friday
Apply to: Selected drive
3. Click the button *Add*.



At the following warning window click *Schedule*:



The just now generated Schedule should now be listed under *Current Scheduled Sessions*



Now you can close the Toolbox.

2.3.13 50 – P+F Tools

- Many of the add-ons described in this document are included by Pepperl + Fuchs on the product CD. You can install these add-ons as follows:
- Click <DOWNLOAD> and save the file on your local hard drive.
- Start the installation by double clicking PFTools.exe, then follow the instructions in the installation routine.
- Choose the applications you want to install in “Select Components”.

2.3.14 51 – S2KWedge

- Click <DOWNLOAD> and save the ZIP file on your local hard drive.
- Extract the file to any location.
- Start the installation by double clicking S2KWedge408_52.exe, then follow the instructions in the installation routine.
- You must enter a valid license key to finish the installation. Please contact Support to purchase a license key.

2.3.15 52 – Remote Backup

- Click <DOWNLOAD> and save the file on your local hard drive.
- No installation is required. Simply double click VisuexLoader.exe to start the application.
- Refer to Section 2.4.3 Remote Access for more information about using the application.

2.4 Installation problems with older applications

If problems occur when you attempt to install an application, it could be that your software was not designed to work under Windows 2000 or Windows XP. Microsoft recommends setting Compatibility mode for all older applications. Proceed as follows to do so:

- (1) Copy the complete installation routine to the hard drive of the VisuNet PC via the network, the USB port or the installation CD.
- (2) Open <Explorer> and select the start routine for your installation (usually setup.exe).
- (3) Open the Properties dialog by selecting <File/Properties>.
- (4) Select <Compatibility> and tick <Run this program in Compatibility mode>. Select the operating system for which the software was developed from the drop-down list and confirm your input with <OK>.
- (5) Now restart the modified installation routine.

Note

- Many installation routines require unrestricted access to the system. Make sure that you are logged in as the Administrator.

2.5 Start menu

The Start menu allows you to restore the factory settings of the VisuNet PC . You can also save and reimpart your complete hard disk partition.

Note that selecting one of these menu commands allows you to diagnose the VisuNet PC hardware components independently of Windows.

The boot loader program that is started when you switch on the system contains the following commands:

1	Operating System
2	Test and Recovery Tools

This operating system is automatically started – in other words, <Operating System> is executed – if no keys are pressed for three seconds.

Note: The VisuNet PC is booted according to standard by inserted Flash-Disc (BIOS = HDD-1)
There is also the boot load programm which provides the above descripts selection menu.

Note: If the selection menu is not desired so you can set as the first boot device the hard disc instead of the flash card. (BIOS under <Advanced BIOS Features> the Menu point <First Boot Device>set from HDD-1 to HDD-0). Then the operating system starts directly.

The other commands are described on the next few pages

2.5.1 Operating System

If the command <Operating System> is selected the real operating system is started. It is itself on the first partiton of the first hard disk.

On delivery there is an operating system preinstalled. Usually this is Windows XP professional multi-language.

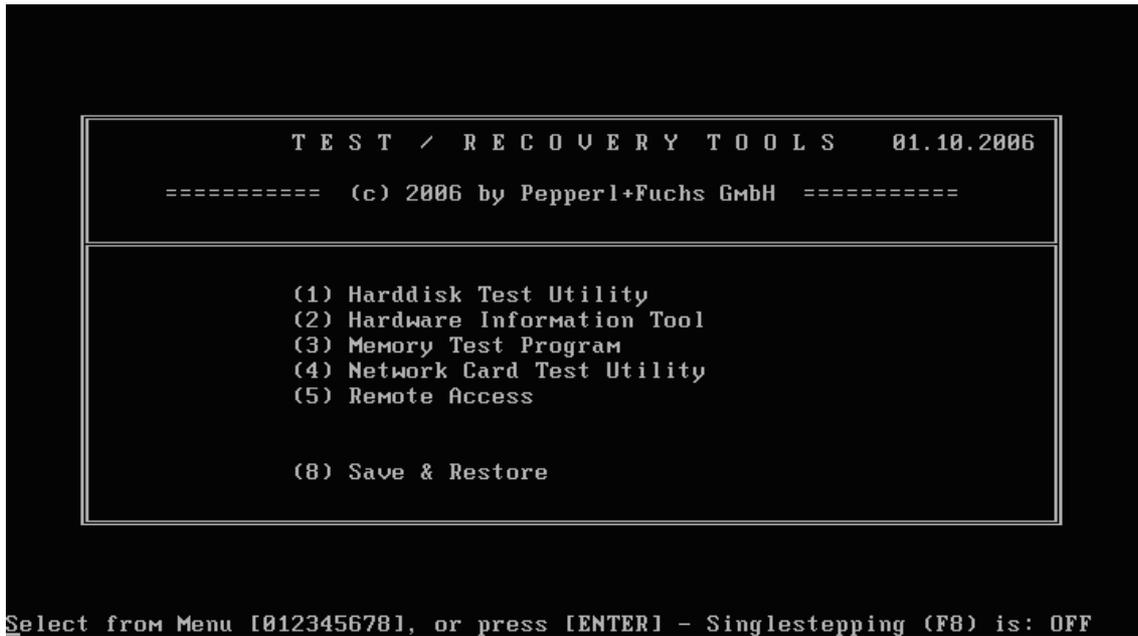
Attention:	However it is possible to install an own operating system. Make sure, in this case, that the partition data of the hard disk are not changed. If you are not sure, please contact the support!
-------------------	--

Note: Please shut down the system always correctly. Simply switching of the system can result in a damaged file system so that the system doesn't boat correctly.

2.5.2 Test und Recovery Tools

The second hard drive (flash disk) contains the above-mentioned boot loader program with the selection menu. You can also find the various test and recovery tools described below on this drive.

When you select < Test and Recovery Tools>, the following menu opens:



Note: Please note that not all menu commands at all versions of devices must be available. So in the version with a hard disk e.g. the menu command (6) “Lift Time Monitoring Tool” isn’t indicated. In the version without a hard disk, the SSD version, the menu command (5) “Remote Access” isn’t available.

The individual commands are described in brief on the next few pages.

2.5.2.1 *Harddisk Test Utility*

This tool can be used to test and repair the built-in hard disk. If you have a suspected problem with your hard drive, you can read the disk status and run a surface analysis.

For more detailed information, please refer to the integrated online help.



Important: This tool can also be used to format the hard disk. In this case, all data on the hard disk is lost and cannot be restored!

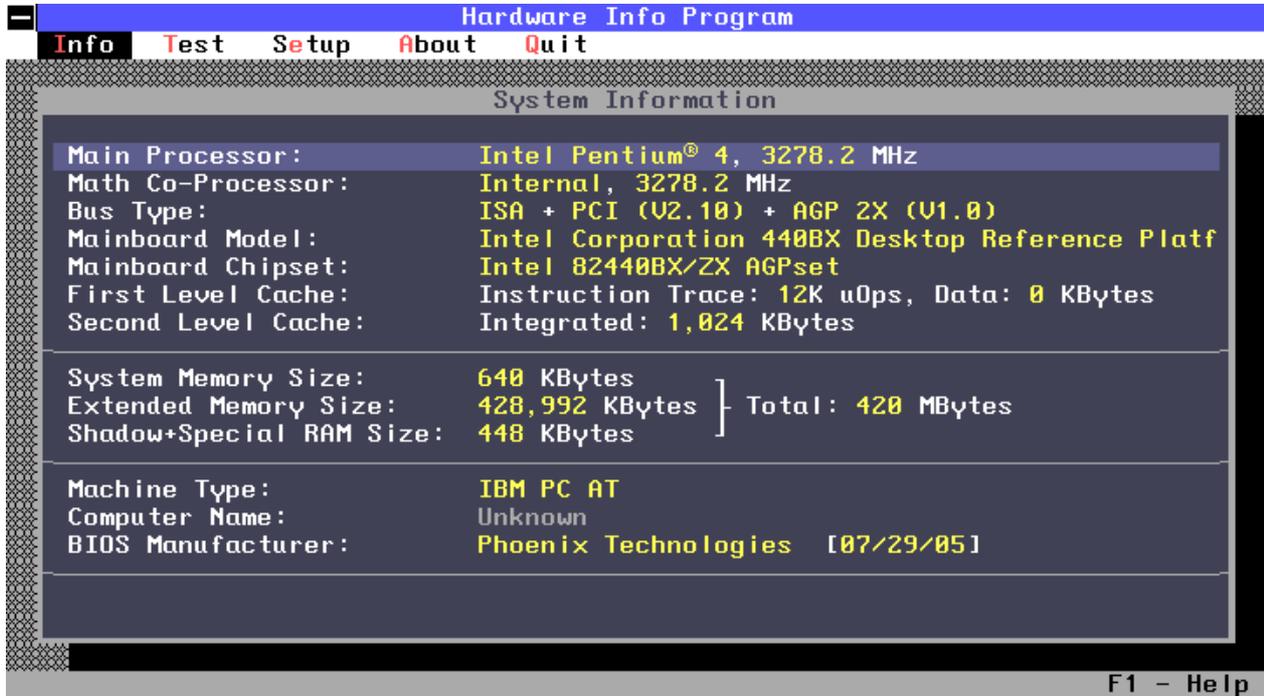
DFT Error Codes

Codes	Description
0x00	No Error Command complete successfully
0x10	Test aborted by user The current test was cancelled by user and cannot be completed. Rerun the test to conclusion
0x20	Selected device not present The selected device could not be found on the selected port. Check cabling and HDD connectors. If the drive is not seen by the BIOS or is not spinning.
0x21	ATA Master device not present An attempt was made to test an ATA Slave device, but an ATA Master cannot be detected. A Master must be present to test a Slave. Check cabling and HDD connectors.
0x22	Device Protected A Selected device is protected by a password. The drive is write and read protected and cannot be tested.
0x23	Format Degraded A SCSI low-level format was interrupted
0x30	Out of memory There's not enough memory to execute this program.
0x31	Wrong parameter There's a wrong or unknown parameter.
0x33	Function cannot be executed on this device
0x40	System interrupts the current operation The system has interrupted the current operation, and the function was aborted. Please exit the program and check if any Power Saving Modes or Cache Programs (like SMARTDRV.EXE) are active. Disable those features and start this program again.
0x41	Bad cable A data miss compare was detected during the cable test.
0x42	Drive temperature problem The drive has exceeded the drive temperature limit
0x43	Pending SCSI request The ASPI Device driver could not complete the SCSI request block. Check the SCSI configuration (cabling, termination, lds etc.)
0x44	System Vibration The level of vibration that the drive is experiencing is excessive, check the mounting of the drive in the system and ensure it is rigidly mounted. If possible try mounting the drive in a different position
0x45	Low System Performance
0x70	Corrupted Sector A general hard disk drive problem was detected. You can run the "Erase Disk" utility. If a subsequent test fails again, the drive is defective and should be replaced.
0x71	Device not ready The selected drive is not ready for operation. Check cabling and HDD connectors
0x72	Device S.M.A.R.T. Error The Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) has detected a drive problem. The drive may fail soon and should be replaced as soon as possible.
0x73	Device damaged by shock The device was damaged by an excessive shock
0x74	S.M.A.R.T. Self-test failed An error was detected during S.M.A.R.T. self-test. You can run the "Erase Disk" utility of DFT. If a subsequent test fails again, the drive is defective and should be replaced.
0x75	Defective Hard Disk DriveComponent

2.5.2.2 Hardware Information Tool

This tool can be used to display supplementary information about the hardware. All built-in components and settings are shown. The program is very useful whenever additional information is needed about the processor, memory, hard disk etc.

For more detailed information, please refer to the integrated online help.



2.5.2.3 Memory Test Program

This test program can be used to test the built-in memory chips. It writes test patterns into the memory and then reads them out again. You should run the program if you have a suspected problem with your memory chips.

```

Mentest86 v1.55 | Pass 25% #####
Pentium 4 (0.09) 3193 Mhz | Test 37% #####
L1 Cache: 16K | Test #6 [Moving inversions, 32 bit pattern]
L2 Cache: 1024K 6502MB/s | Testing: 112K - 636K 640K
Memory : 640K 31299MB/s | Pattern: 00001000
Chipset : Intel i440BX

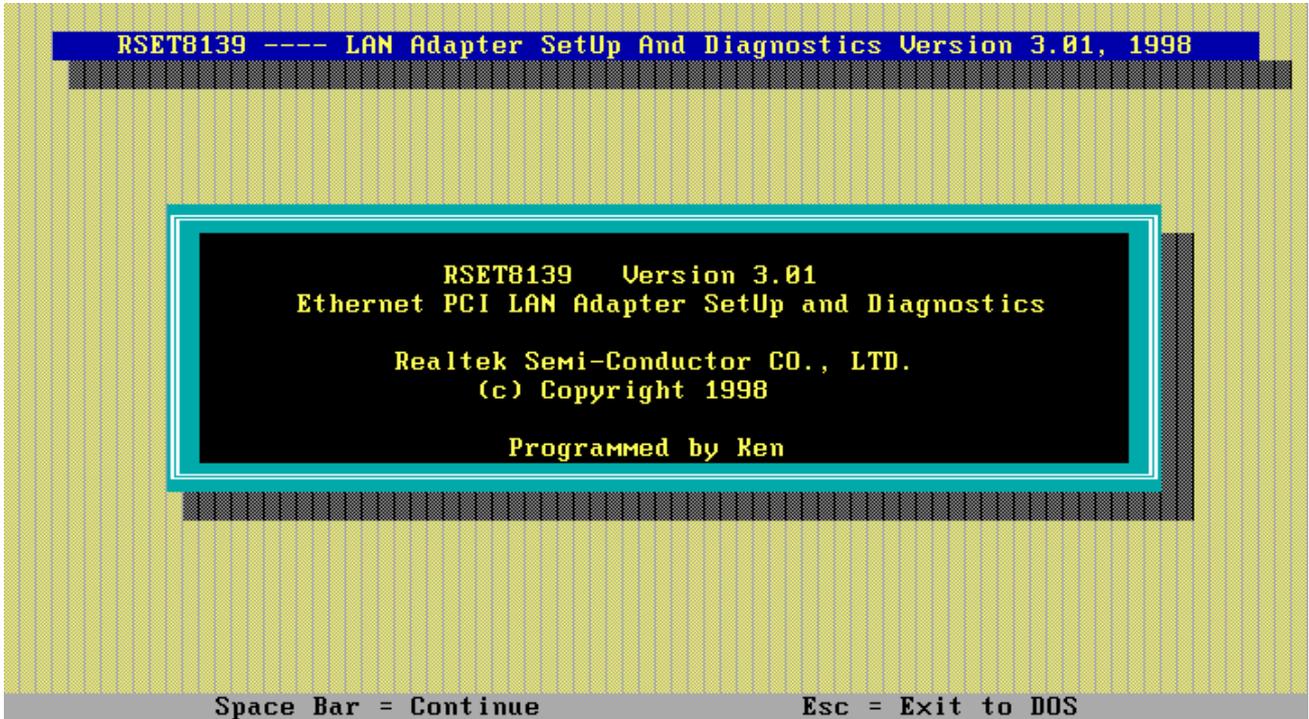
WallTime  Cached  RsvdMem  MemMap  Cache  ECC  Test  Pass  Errors  ECC  Errs
-----
0:00:02    640K    418M  e820-Std  on  off  Std    7     0

(ESC)Reboot (c)configuration (SP)scroll_lock (CR)scroll_unlock

```

2.5.2.4 Network Card Test Utility

This program can be used to test the network card. You can run both internal (standalone) tests and loopback tests with another VisuNet PC (configured as a responder) over the complete Ethernet link.



2.5.2.5 Remote Access

By selecting <Remote Access>, you can save a complete copy of the current disk image via the network or reimport an existing copy.

In this case, connect the VisuNet PC to the network, then reboot and select <Remote Access>.

The following readout appears on the screen:

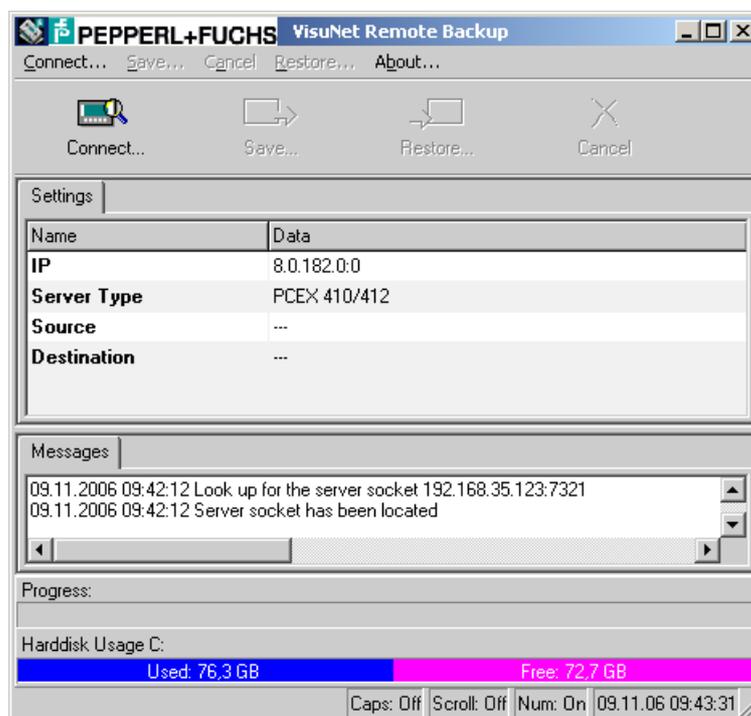
```
JNOS version 2.0d-x (80386)
Special IP-centered Jnos 2.0 build by Erwin Veermans, NWdsk@veder.com
(including post 1.11f-patches and patches by Karl-Heinz Weiss)
New Jnos 2.0 distribution by Maiko Langelaar, UE4KLM
based on Jnos 1.11f by Johan. K. Reinalda, WG7J/PA3DIS
James P. Dugal, N5KNX, and Brandon S. Allbery, KF8NH
Copyright 1991 by Phil Karn (KA9Q) and contributors.
XMS detected.

net0      IP addr 192.168.35.41 MTU 1500 Link encap Ethernet
          Link addr 00:0c:29:03:09:8c
          flags 0x0 trace 0x0 netmask 0xffffffff broadcast 0.0.0.0
          sent: ip 0 tot 0 idle 0:00:00:02
          rcv: ip 0 tot 0 idle 0:00:00:02

loopback IP addr 127.0.0.1 MTU 65535 Link encap None
          flags 0x0 trace 0x0 netmask 0xffffffff broadcast 255.255.255.255
          sent: ip 0 tot 0 idle 0:00:00:02
          rcv: ip 0 tot 0 idle 0:00:00:02

Pepperl+Fuchs -----
For remote access please use the connection settings listed above.
To reboot system enter 'exit'.
159712 jnos> _
```

The system is now ready to transfer data over the network. Make a note of the system's IP address and start the *VisuNet Remote Backup* tool on a Windows computer that is likewise connected to the network.



Choose <Connect> and enter the IP address you noted in the previous step in the field provided. Select <Save> or <Restore> is the connection is set up successfully.

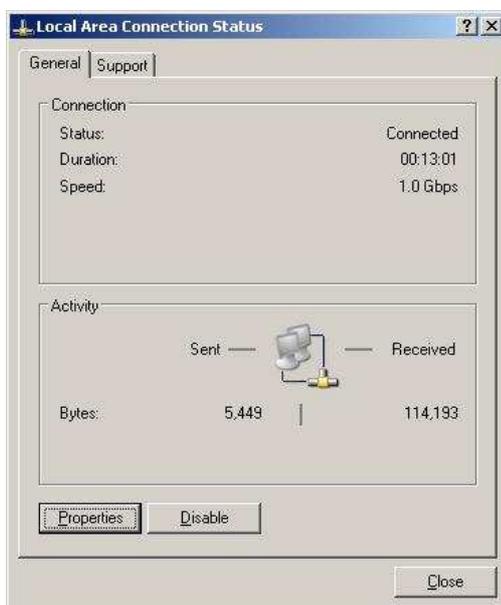
Statical IP-Address

If no DHCP server is in your VisuNet PC network and/or if no dynamic IP address is available (e.g. because the VisuNet PC is connected with a laptop point to point) then in the case of Remote Access the IP address 192.168.217.119 is assigned statically.

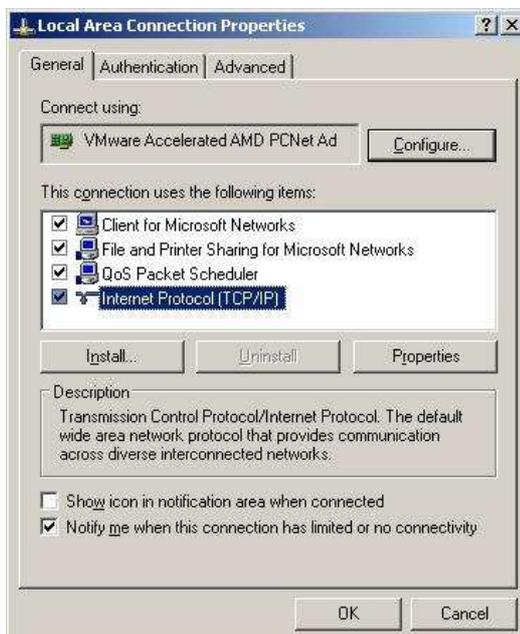
Thereby it is possible to still use the remote ACCESS mechanism of the VisuNet PC. The backup computer must be only configured in such a way that he can access the VisuNet PC: Set the IP address of the backup computer to **192.168.217.120** and set the subnet mask to 255.255.255.0.

For this proceed as follows:

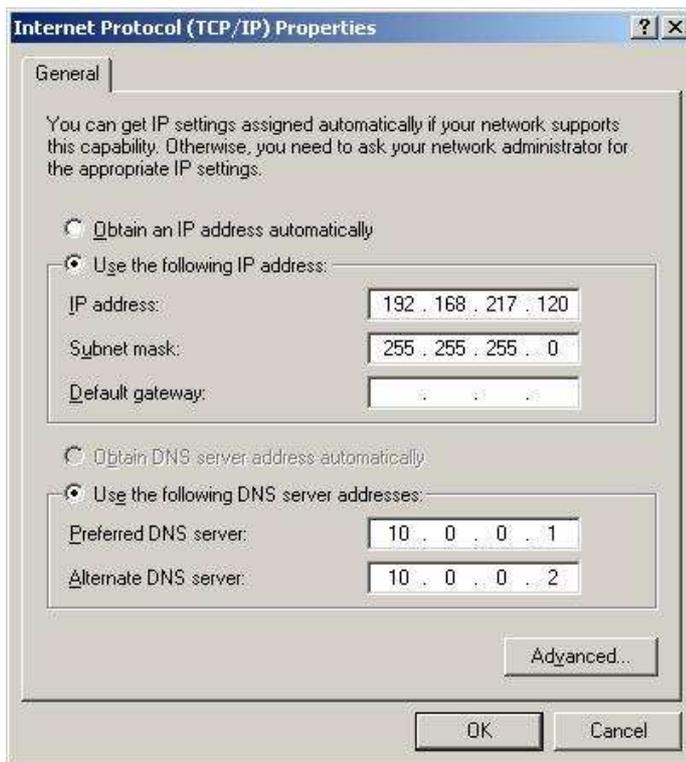
1. Open the dialog LAN-connection under network connection :



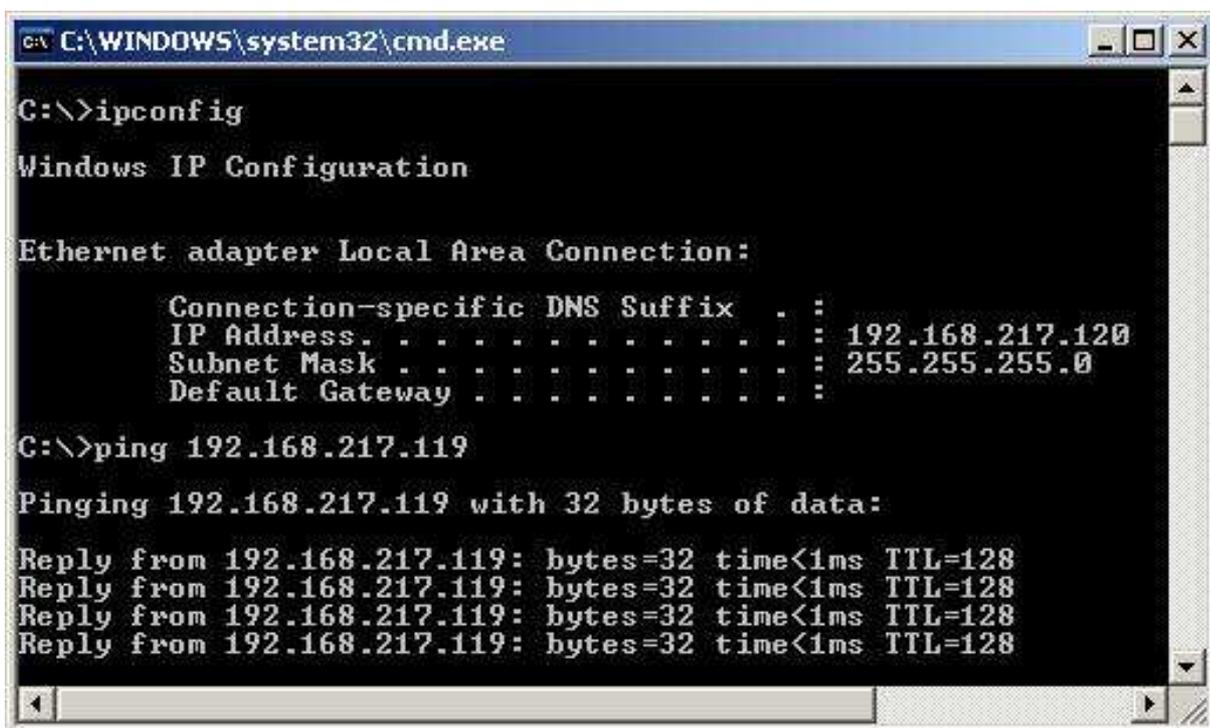
2. Doubleclick in thereupon itself opening dialogue to the internet protocoll (TCP/IP):



- Please register in the following dialog the new IP-adress 192.168.217.120 and the subnet mask 255.255.255.0. Confirm the inputs with ok.



- Check whether the attitudes were correctly taken over by opening the command line and let indicate with the command ipconfig.exe your current IP-adress. In case of success please send a ping to the VisuNet PC.



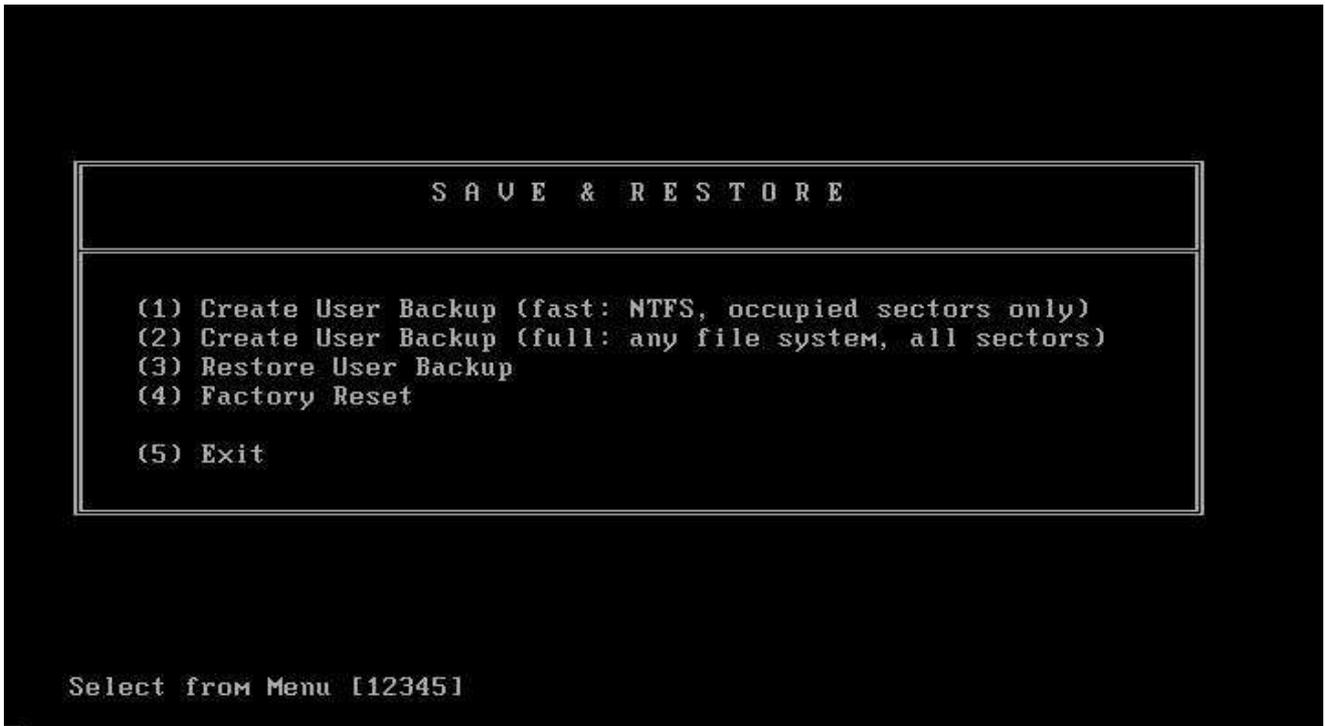
To transmit the data via network start the provided tool VisuNet “Remote Access”, described under 2.5.2.5.

2.5.2.6 *Life Time Monitoring Tool for Solid State Disk*

By selecting <Life Time Monitoring Tool> you can ascertain status information of the Solid State Disk (SSD). Details for handling the program you will see in the documentation C:\\$OEM\$\99 Tools\SBLTM_1.1.0.

2.5.2.7 *Save & Restore*

By selecting <Save & Restore>, you can restore the factory settings of the VisuNet PC.



You can also back up the current image or restore a backed-up image. The backup image is saved in a separate partition.

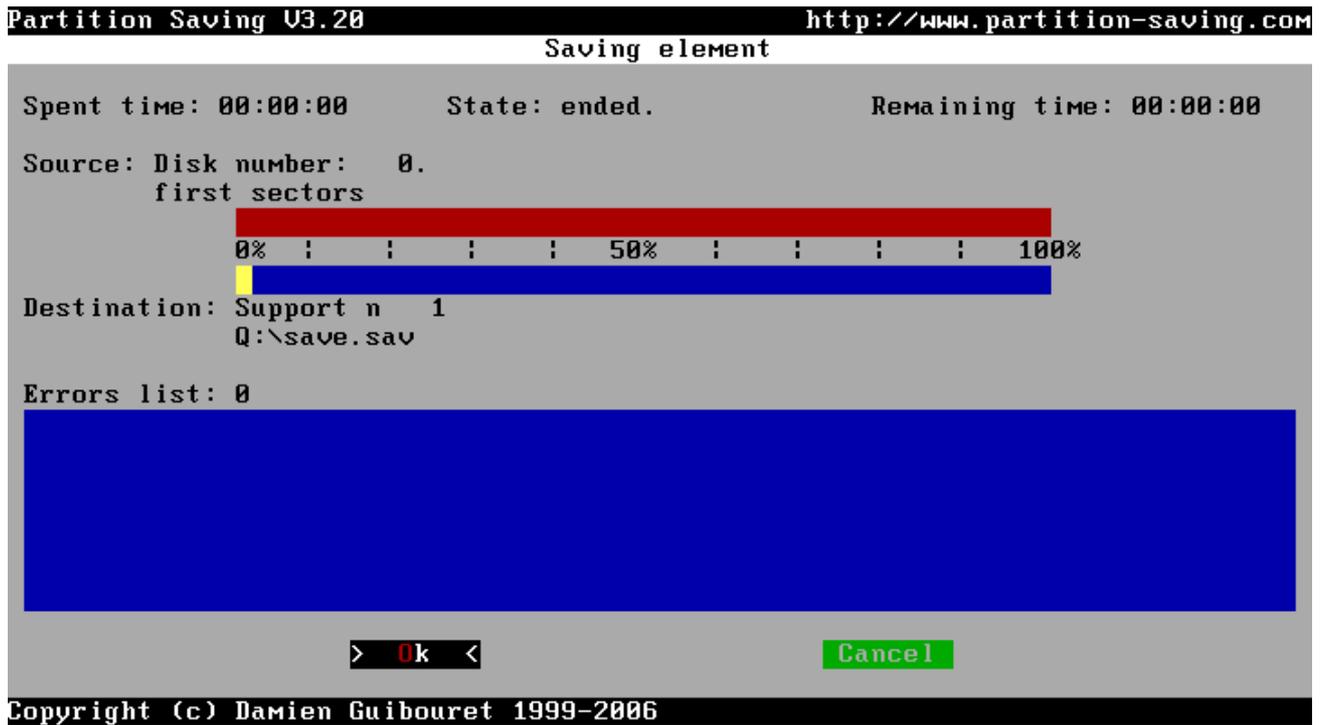
You can choose from the following options:

1. Create User Backup – creates a fast backup of the current image. This only works if your hard drive is formatted in the standard Windows XP file format (NTFS). You only back up occupied sectors on the hard drive, which means the backed-up image takes up less memory.
2. Create User Backup – creates a full backup of the current image. All sectors on the hard drive are backed up with this option, which means the image takes up more memory and the backup takes longer to complete. On the other hand, this method is not restricted to the NTFS file format.
3. Restore User Backup – Restores an image that was backed up with option 1 or option 2.
4. Factory Reset – Restores the factory settings of the VisuNet PC.

Note: Please note, that not all menu commands could be available in all versions of the devices. So, e.g. the menu commands (1) to (3) are not available at the version SSD (version without hard disk).

Please note, that not all menu commands could be available in all versions of the devices. So, e.g. the menu commands (1) to (3) are not available at the version SSD (version without hard disk).

The Save & Restore function uses the SavePartition tool. The time needed to back up or restore an image or the factory settings can vary from a few minutes to several hours, depending on the amount of data and the selected action.



Important: By restoring the factory condition, you simultaneously destroy all data on the hard disk. This action cannot be undone.

Note: Unlike with *Remote Access*, it is not necessary to set up a connection to the network, because all the data that is necessary to restore the factory settings is stored on your local hard drive.

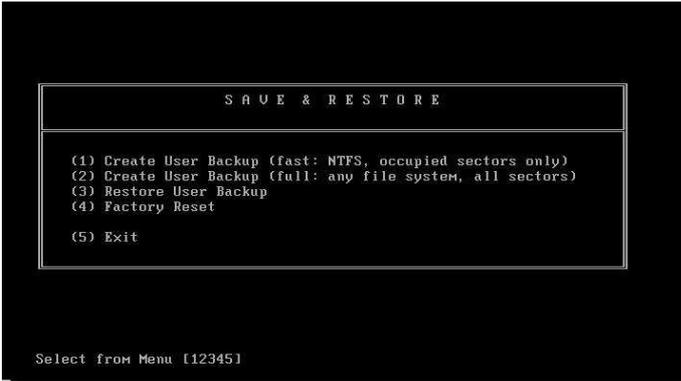
2.6 Data backups

2.6.1 Data backup with P+F tools

Note: Data backup is only possible at the hard disk version!

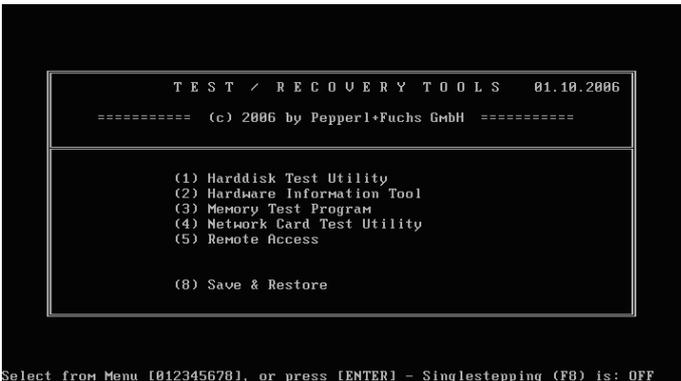
Data backup to another PC on the network:

- 1.) Create User Backup (2) ----- the complete partition C will be saved on partition D.



(see manual chap. 2.5.2.7 Save & Restore)

- 2.) Remote Access (5) ---- the User Backup (on partition D) will be saved to another PC on the network.

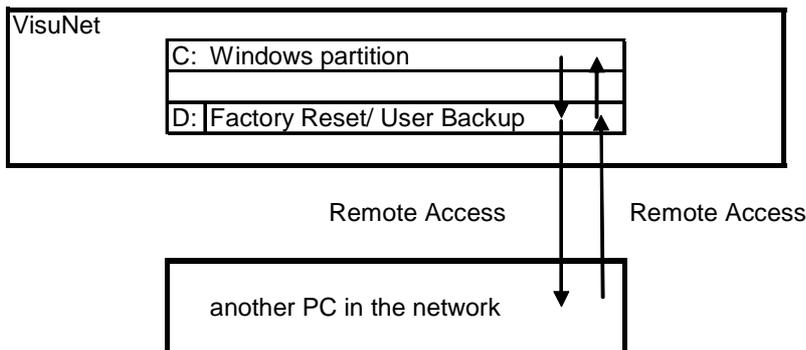


(see manual chap. 2.5.2.5, Remote Access)

Restore data from the backup

- 1.) Remote Access (5) ---- the User Backup will be restored from another PC to D:
- 2.) Restore User Backup (3) ---- partition C will be restored from partition D.

Overview data backup



2.6.2 Data backup with Windows NTBackup

You can run a <Factory Reset> at any time in the factory condition with *Windows XP Embedded*. This restores the original condition of the operating system. If you have also installed data and programs of your own, however, you must back them up separately.

A program called <NTBackup.exe> is preinstalled together with *Windows XP Embedded*. You can use this program to back up all the data on your hard disk via the network. Proceed as follows to do so:

- (1) Open the Properties dialog for the C: drive. choose <Explorer / Local Disk / File / Properties>.
- (2) Change to <Options> and select <Backup now..> under <Backup>.

Note: You can also start this program by choosing <Start / Programs / Accessories / System Tools / Backup>.

- (3) In the <ntbackup.exe> program, choose <Backup> and specify the files you want to back up. Specify a backup medium, then select <Start backup>.

Note:

- You can find a detailed description of the NTBackup program in the online help.

2.6.3 Recovery with NTBackup

A program called <NTBackup.exe> is preinstalled together with *Windows XP Professional Multi Language*. You can use this program to back up all the data on your hard disk via the network and then recover it later.

In order to recover the data on your hard disk, you must first make a backup copy (as described in section 2.6.1 above).

- (1) Open the Properties dialog for the C: drive. choose <Explorer / Local Disk / File / Properties>.
- (2) Change to <Options> and select <Backup now..> under <Backup>.

Note: You can also start this program by choosing <Start / Programs / Accessories / System Tools / Backup>.

- (3) In the <ntbackup.exe> program, choose <Recovery> and specify the files you want to recover. Then select <Start recovery>.

Note:

- If your operating system is defective, you should run a <Factory Reset> on the system first. This restores the original condition of the operating system. This only works, however, if the device was delivered with *Windows XP Professional Multi Language* preinstalled.

2.7 Language settings

2.7.1 Changing the language of menus and dialog boxes

Some languages are installed on the system in the factory condition with *Windows XP Professional Multi Language* (see table above). You can change the language of the menus and dialog boxes at any time. Proceed as follows to do so:

- (1) Open the <Regional and Language Options> dialog.
- (2) Choose a new language in the <Languages> dialog under <Language used in menus and dialogs>. Confirm with <OK>.
- (3) Then log out of Windows and log in again to activate the new user interface language.

Note:

- Not all programs support language switching. In this case, all texts in menus, dialog boxes and help files are in future only available in one language. With operating system programs, this language is usually English. As far as your own programs are concerned, it depends on the language you selected at installation time.
- Shortcuts on the Desktop or in menus are not automatically translated, in other words they keep their old text.

2.7.1.1 Delete a language

Attention	You cannot reselect or reinstall a language after you have removed it! We advise you to keep all languages!
------------------	--

To save memory you can permanent delete languages. This frees approximately 50 – 100 MB of memory per language on your hard disk.

- (1) Select <Start/Run...> and type <muisetup.exe>.
- (2) Click <Accept the License Agreement> and <Continue>. All installed languages are offered in a selection box.
- (3) Untick the languages you want to delete and confirm the changes with <OK>. The languages are deleted from your system.

Note:

- You cannot restore a language after you have deleted it. You should never delete languages unless you desperately need the space on the hard disk. Approximately 50 – 100 MB is freed per language.
- If you only want to disable language selection, it is better to simply delete the relevant country codes in the Registry under <HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Nls\MUILanguages> (the codes must actually be deleted, not just set to 0).

0409	English	0411	Japanese
0407	German	0001	Arabic
0410	Italian	0419	Russian
0C0A	Spanish	0414	Norwegian
040C	French	0816	Portugese
0412	Korean	0004	Chinese (simplified)
040D	Hebrew		

2.8 Applications

2.8.1 Problems with applications (Compatibility mode)

If problems occur when you attempt to run an application, it could be that your software was not designed to work under Windows 2000 or Windows XP. Microsoft recommends setting Compatibility mode for all older applications. Proceed as follows to do so:

- (1) Open <Explorer> and select the application that is causing the problems.
- (2) Open the Properties dialog by selecting <File/Properties>.
- (3) Select <Compatibility> and tick <Run this program in Compatibility mode>. Select the operating system for which the software was developed from the drop-down list and confirm your input with <OK>.
- (4) Now restart the modified application.

Note:

- Many older applications require unrestricted access to the system. Make sure that you are logged in as the Administrator.

2.9 File system

2.9.1 Read and write errors

If you frequently encounter file errors while you are working with the VisuNet PC, you should check the transfer mode on your hard disk. The VisuNet PC supports <Multiword DMA Mode 2>.

- (1) Open the Device Manager: choose <Start / Control Panel / System / Hardware / Device Manager>.
- (2) Open the primary IDE channel settings: choose <IDE ATA/ATAPI Controller / Primary IDE Channel / Advanced Settings>. The following settings should be selected here:

Device 0:

Transfer mode:

DMA if available

Current transfer mode:

Multiword DMA Mode 2

- (3) If anything else is entered here, you must reboot your system and change to the BIOS Setup. Press the key while the startup message is displayed. Open the <Integrated Peripherals> menu and set all entries from <Primary Master UDMA> to <Secondary Slave UDMA> to <Disable>. Then restart the operating system.
- (4) Recheck the settings as described in step (2). If <PIO only> is entered here, change this field to < DMA if available> and reboot your system. Recheck the settings as described in step (2).

2.10 System recovery

2.10.1 Boot problems

If the VisuNet PC is not shut down in a controlled way or if it crashes in operation, the hard disk is automatically tested with <autochk> the next time you boot the system. This test can take several minutes (up to 40 minutes in extreme cases).

The problem is as follows: when you boot the system, you see the Windows logo briefly. The screen then goes dark for the duration of the test and the HDD LED is on. (if the HDD LED is existing)

There are three possible ways to rectify this problem:

- Press F8 while the system is booting to display the Boot menu.
Choose <Start Windows Using Last Known Good Configuration>.
=> <autochk> is skipped.
- Display the progress of <autochk> by deactivating the graphical Boot menu.
 - Choose <Start/Run> and then <msconfig>.
 - Click <boot.ini>.
 - Activate </noguiboot>.
- Deactivate the disk boot test.
 - Choose <Start/Run> and then <chkntfs /x C:>(see Microsoft Knowledge Base Article – 160963).

2.10.2 Restoring the previous condition after an installation

Windows XP automatically starts Automated System Recovery. This utility automatically creates a recovery point before Windows updates or unsigned drivers are installed and before other installation routines are executed. Recovery points allow you to restore your system's previous condition prior to the installation.

If your system no longer works correctly after an installation, you can run the Automated System Recovery to restore the old condition. Proceed as follows to do so:

- (1) Start the system restore by choosing <Start / Programs / Accessories / System Tools / System Restore>.
- (2) Choose <Restore My Computer to an earlier time> and then <Next>.
- (3) This opens a calendar containing a restore point for each bold entry. Select a restore point and confirm it by clicking <Next>.
- (4) The system now asks again whether you are sure you want to return to this restore point. Confirm with <Next>.

Note:

- A system restore causes all documents, mails, graphics etc. that were created later than the restore point to be lost!
- The best method is to return to each restore point one at a time until the system runs stably again. You should always start with the most recent restore point.
- The Automated System Recovery can also be started in Safe Mode. This is useful if your system will not boot up any other way (refer to section 2.10.4)

2.10.3 Restoring old driver versions

Microsoft Windows XP integrates a new function called "Device Driver Rollback". When a new driver is installed, this function makes a copy of the old driver to enable the new driver installation to be undone if necessary.

The rollback function can be activated easily in the Properties of any hardware that is listed in the Device Manager. The "Driver" tab includes a button called "Roll Back Driver". If you click this button, XP attempts to restore the old driver.

- (1) Open the Device Manager: choose <Start / Control Panel / System / Hardware / Device Manager>.
- (2) Select the last device for which a driver was installed in the tree view. Then open the Properties for this entry with the context menu.
- (3) You can now restore the last driver by choosing <Driver> and <Roll Back Driver>.

Note:

- You can only restore the most recent driver.
- If several drivers were installed at once, you must restore each driver individually.
- If Windows cancels the start procedure with a blue screen and a STOP message, the reason is probably that the driver was not integrated correctly. A useful remedy in this case is the "Last Known Good Configuration" mechanism, which restores the last configuration that is known to have worked correctly. This option is automatically suggested by Windows after a failed system start. It can also be activated by pressing F8 while the system is booting (refer to section 2.10.4).
- Device Driver Rollback can also be started in Safe Mode. This is useful if your system will not boot up any other way (refer to section 2.10.4).

2.10.4 Starting Windows in Safe Mode

If your system will no longer boot up, you can try starting Windows in Safe Mode. Safe Mode is a special operating system mode which only loads absolutely essential drivers, in other words the VisuNet PC is just about able to function in this minimum configuration. It allows previously installed software components (such as device drivers) that have not been working correctly or that have caused the operating system to crash to be uninstalled again.

To enter Safe Mode, press F8 while the system is booting. Then choose one of the following options:

Safe Mode	Windows starts in Safe Mode with the Windows GUI.
Safe Mode With Network Support	Windows starts in Safe Mode with the Windows GUI and network drivers.
Safe Mode With Command Prompt)	Windows starts in Safe Mode with a command prompt (without the Windows GUI).
Last Known Good Configuration	If Windows cancels the start procedure with a blue screen and a STOP message, the reason is probably that the driver was not integrated correctly. A useful remedy in this case is the "Last Known Good" mechanism, which restores the last configuration that is known to have worked correctly.

Note:

- If you are able to start the system in Safe Mode, you can subsequently repair it with [NTBackup](#), [Automated System Recovery](#) or [Device Driver Rollback](#).

2.10.5 Windows will not start in Safe Mode

If Windows will not start in Safe Mode either, there are several possible reasons. Please check the points below in the given order:

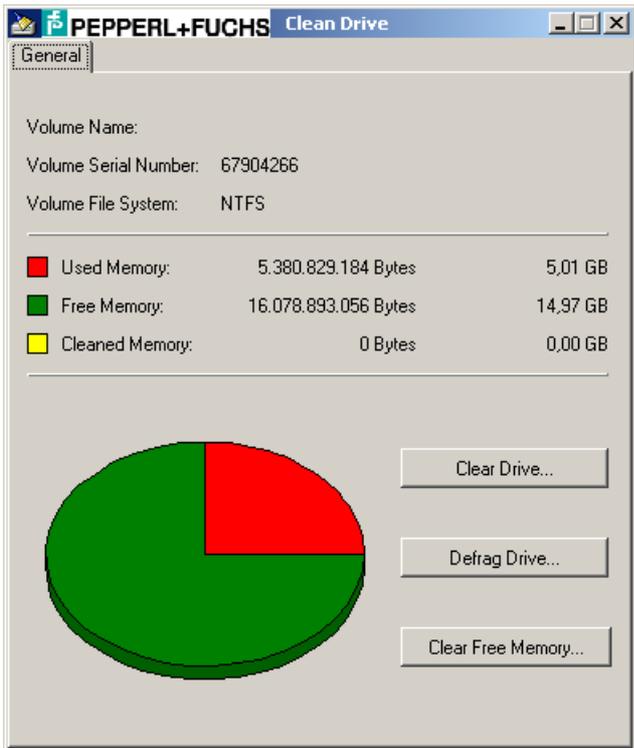
- (1) Is the MBR of the hard disk in order? If the Boot menu no longer appears when you start the system, try restoring the MBR (refer to section Restore MBR of Harddisk).
- (2) If the system comes to a halt after the BIOS start message, you should check whether your hard disk is still working (refer to section Harddisk Test Utility)
- (3) If nothing else helps but your hard disk is not defective, try running a factory reset (refer to section 0 Factory Reset).

3 Additional software supplied by Pepperl + Fuchs for VisuNet PC

	<p>Note: All tools mentioned here are only available in case of a pre-installation of the operating system from Pepperl+Fuchs GmbH !</p>
---	---

3.1 Clean Drive

Note: This command is only available for versions with hard disk, not for SSD.



Clean Drive is a Utility program for clearing or defragmenting drives and for clearing free memory.

The program is designed to optimize data backups of whole hard disk partitions.

Any files that are no longer needed can be deleted and free memory efficiently cleared.

3.1.1 Clear Drive

Clear Drive allows you to free additional memory on your hard disk. It scans the drive and displays a list of temporary files, Internet cache files and program files that are no longer needed and can be deleted without any risk. You can then tell Clear Drive to delete some or all of these files.

The following tasks for freeing hard disk memory can all be executed in the Clear Hard Drive Wizard in Windows:

- Delete temporary Internet files.
- Delete all downloaded program files (ActiveX controls and Java applets that have been downloaded from the Internet).
- Empty the Recycle Bin.
- Delete temporary Windows files.
- Delete Windows components that are not used.
- Remove installed programs that are no longer used.

3.1.2 Defrag Drive



Defrag Drive searches for fragmented files and folders on local drives. Fragmented files and folders are split into many small parts and scattered all over the drive.

A large number of fragmented files and folders stored on a drive slows down file access in Windows, because pasting the fragments back together again entails additional read operations on the drive concerned. Creating new files and folders also takes longer, because the available memory is distributed throughout the drive. As a result, all new files and folders have to be stored at several different drive addresses.

The defragmentation program moves the many file and folder fragments to a single location on the drive, so that each file or folder can be assigned a contiguous memory address. This method guarantees fast access to files and folders and ensures that new data is efficiently stored. When files and folders are consolidated by Defrag Drive, free memory space is consolidated as well to prevent new files from being fragmented.

This process of searching for and consolidating fragmented files and folders is known as "defragmentation". The time needed to defragment depends on several factors, such as the size of the disk, the number of files stored on it, the degree of fragmentation and the availability of local system resources. Before starting Defrag Drive, you should check the disk in order to locate the fragmented files and folders. The number of fragmented files and folders stored on the drive is then displayed and you are advised whether or not it should be defragmented.

Defrag Drive can defragment all disks formatted with the FAT, FAT32, and NTFS file systems.

3.1.3 Clear Free Memory



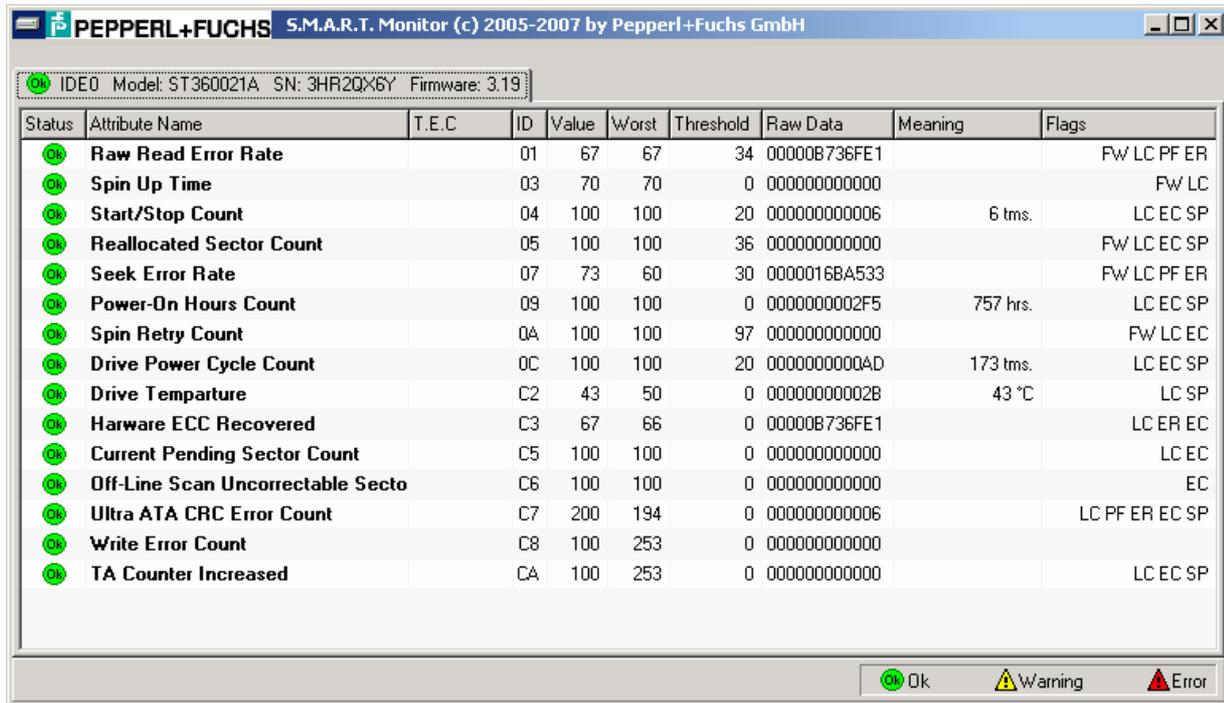
When you delete files from a hard disk, only the corresponding directory entries are deleted and not the actual data.

This program calculates the amount of free memory on the hard disk and then clears this space by overwriting the data with a bit pattern. The purged data can no longer be restored.

If you need to back up a whole hard disk partition, it is best to run this program first. This prevents data trash in the free memory from being backed up as well and the created backup files are much smaller.

3.2 SMART Monitor

Note: This function is only available for versions with hard disk, not for SSD.



3.2.1 What does S.M.A.R.T. stand for?

S.M.A.R.T. = "Self Monitoring And Reporting Technology". It is a standard interface that allows disk to check its status, report it to a host system, and provide some estimate of a failure date.

3.2.2 What is T.E.C.?

T.E.C. stands for "Threshold Exceeded Condition" and basically means a failure. When your S.M.A.R.T. control tool reports a "T.E.C. date" or "Nearest T.E.C. predicted" it really means "Failure date".

3.2.3 What is the S.M.A.R.T attribute?

The S.M.A.R.T attribute is a specific property of the disk being monitored. The attribute is referred to either by its number or its descriptive name. An attribute value is a positive, integral number, usually in the range from 1 to 100 (sometimes to 200 or 253). Maximum values are good, minimum values indicate that some component of the disk is about to fail. A specific threshold is assigned to each attribute. Once the value drops below this threshold, S.M.A.R.T considers the disk to be faulty. Some attributes are considered life-critical and others are merely "informative". A T.E.C. with an "informative" attribute does not necessarily mean a drive failure.

3.2.4 Understanding the SMART Attributes

Status Provided a status for the attribute. OK means the attribute value is well in the safe zone. WARNING means that the attribute value is approaching the attribute threshold and FAIL means that a Thershold Exceeding Condition has been detected.

Attribute NameA text description of the attribute. See below for a more detailed description of each attribute.

T.E.C.

"Threshold Exceeded Condition". The monitor watch the attribute changes and guess the date the value will reach the threshold value.

IDThe attribute ID.

ValueThe current normalized attribute value.

WorstThe worst (lowest) value recorded so far. This is an indicator of how close to failure the drive has ever been.

ThresholdThe attribute threshold. This value will not change and represents the lowest possible safe attribute value.

Raw DataThe attributes current raw value. This may be a count, a number of errors or hours, or even a temperature, depending on the attribute.

Flags

FW Pre-Failure Warranty

LC On Line Collection

PF Performance Attribute

ER Error Rate Attribute

EC Event Count Attribute

SP Self-Preserving Attribute

3.2.5 Are S.M.A.R.T predictions accurate?

S.M.A.R.T can only predict a gradual degradation of the disk. It cannot and it does not predict catastrophic events, including but not limited to head crashes, power spikes and so on. There is a general rule to follow when interpreting S.M.A.R.T results: if S.M.A.R.T reports a disk failure, it's time to immediately backup its data; if S.M.A.R.T reports the disk to be O.K., it's time to backup anyway.

3.2.6 What is "Spin up time"? My disk reports a "Spin up time" of about 75. Is it about to crash?

"Spin up time" describes the amount of time it takes to spin the platters up to their rated rotation speed (usually 5400 or 7200 RPM). Values above 80 should be considered good. Values between 70 and 80 are acceptable. There is a known issue with Quantum (Maxtor) hard drives: out-of-the-box new drives' "Spin up time" drops to 70 within the first two weeks of use, causing S.M.A.R.T tools to predict a failure within a month. This is usually a false alarm. After some initial "burn-in" period the "Spin up time" becomes constant and the drive functions normally.

3.2.7 What is "Ultra ATA CRC Error Rate"?

The UDMA controller performs error checking on the data it receives from the HDD, ensuring that the data was not damaged while being transmitted over the cable. Each time an error is detected, the controller requests a retransmission, thus slowing down the overall transfer speed. Lower values of "Ultra ATA CRC Error Rate" correspond to a higher number of errors, usually indicating a cabling problem.

3.2.8 How can I measure the drive temperature using S.M.A.R.T tools?

Some modern hard drives are equipped with thermal sensors and can report their temperature to the host system using S.M.A.R.T technology.

3.2.9 What other S.M.A.R.T attributes exist?

Following is a list of some attributes. Please note that it does not include all possible attributes.

3.2.10 Life Critical Attributes

Reallocated sectors count	Indicates the amount of the spare sector pool that is available. Spare sectors are used to replace sectors that become bad for some reason. A value of 100 means that no sectors are remapped, 1 means that spare sectors are exhausted due to many remaps.
Read error rate	Indicates the rate at which read retries are requested. Lower values indicate that there is a problem with either the disk surface or the read/write heads.
Write error rate	Similar to the above.
Recalibration retries	Indicates the number of times recalibration was requested. A low value (multiple recalibrations) usually indicates some head positioning problem.
Spin retry count	Indicates the number of times the disk was unable to spin its platters up on the first attempt (lower values mean more retries).

"Informative" attributes

Power on hours count	The raw value of this attribute indicates how long the drive was working (powered on)
Drive start/stop count	The raw value of this attribute indicates the total number of drive start/stop cycles (including both power on/off switching and suspend/wakeup switching).
Temperature	This attribute shows the temperature for drives equipped with a thermal sensor. The exact temperature can be obtained from the Raw value.

3.2.11 S.M.A.R.T.-Monitor and Event Viewer

The S.M.A.R.T. Monitor also monitors the Windows Event Viewer. If any problems occur with your hard disk, they are automatically displayed. The entries correspond to the Windows system log.

Note: To open the Windows *Event Viewer*, choose <Start / Settings / Control Panel / Administrative Tools / Event Viewer>. Select <System Log> in the Event Viewer.

Note: The S.M.A.R.T. Monitor checks all entries whenever the system is booted up or the system log is changed. You should delete the events in the <System Log> to prevent old messages from being displayed every time the system is booted. To do so, select <Delete all events> in the context menu of the Windows Event Viewer.

3.2.12 EXTEC S.M.A.R.T Monitor status warnings

As long as this program is active, it runs on your computer in the background. The kernel service controls the disk parameters and predicts potential failures or drops in performance.

WARNING: We recommend you start backing up all critical data on this disk!

This message informs you that the nearest predicted T.E.C. date for the specified disk drive is very close. This warning must be taken seriously. You should start backing up all important data on your hard disk and please contact Pepperl + Fuchs support.

ERROR: One or more S.M.A.R.T attributes had exceeded its threshold condition! Backup your critical data immediately!

Some of the S.M.A.R.T. attributes of the specified hard disk have exceeded their threshold limits and the disk is no longer safe to use. Back up your data immediately! You are advised not to save any more important data on this disk.

3.3 Hotkey Tool

A service for defining keys and shortcuts is installed on the VisuNet PC. Among other things, this tool allows you to start applications with the function keys or change the assignment of key codes to keys.

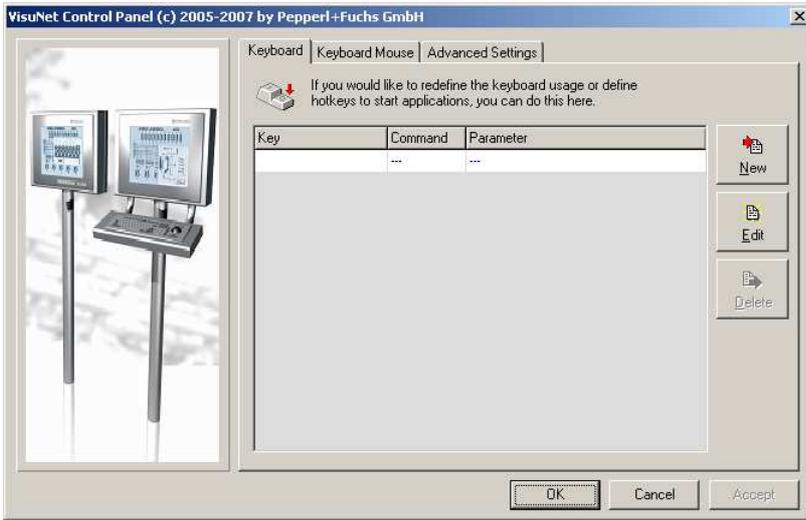
It consists of a permanently executing program that monitors the keys (VisuNetKeyService.exe) and a user interface for inputs.

Inputs are made via the Control Panel. Choose <Start / Settings / Control Panel> double-click the <VISUNET Settings> icon.



and

You can assign keys new functions in the screen which is opened next.



This screen has three buttons:

- New** Creates a new entry
- Edit** Edits an existing entry
- Delete** Deletes an existing entry

<New> and <Edit> open a new dialog, in which you can define or edit an entry.

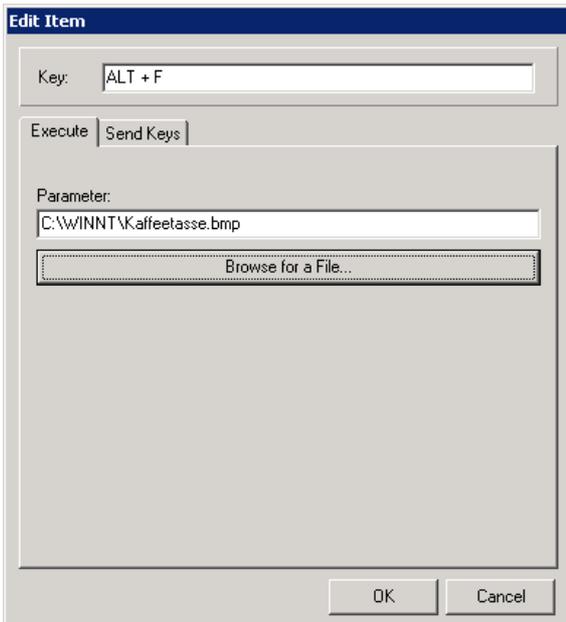
Point the cursor at the <Key> field and press the key or shortcut you want to (re)define. Then choose either <Execute> or <Send Keys>.

Execute You can enter the program to be executed here. You can also specify another file, providing an application is registered for the file extension.

Send Keys Here, you can define the keys, shortcuts or key sequences that must be output instead of the key that is physically pressed.

Note:

- Function keys <F13> to <F24> generate key codes <Ctrl+Shift+F1> to Ctrl+Shift+F12>. They can be redefined with this application.
- System keys and keyboard shortcuts such as <Ctrl+Alt+Del> and <Alt+Tab> cannot be redefined.
- Many applications do not accept these changes until you reboot the system.

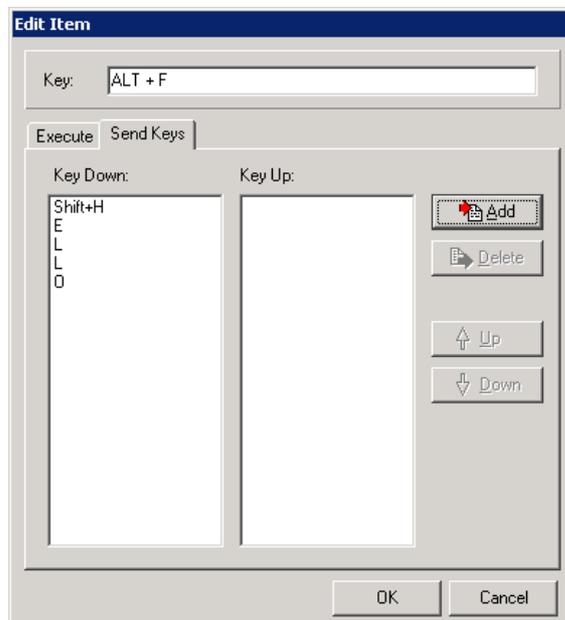


Example 1:

Pressing <Alt+F> on the VisuNet PC (key S1 (Shift) at opens a file called <Kaffeetasse.bmp> with the program that is registered for the BMP extension.

Example 2:

Pressing <Alt+F> causes the key sequence "Hello" to be sent to the currently active application.

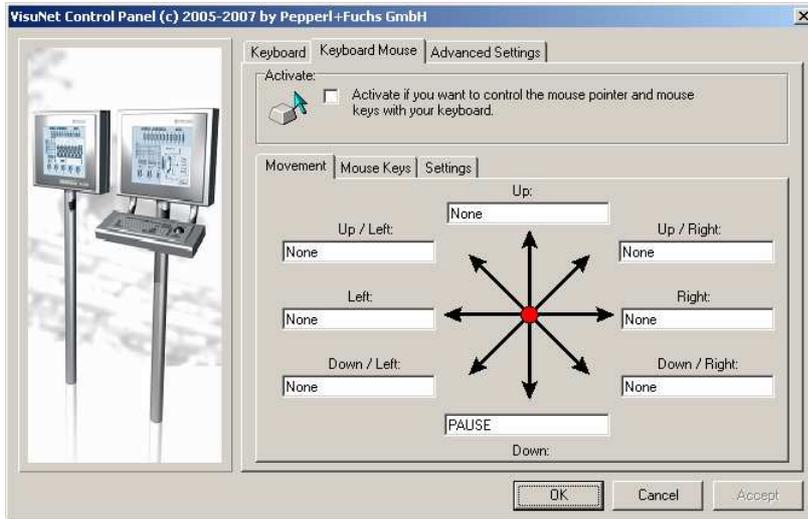


Predefined shortcuts

You can use the shortcuts <Ctrl+Shift+7> and <Ctrl+Shift+8> to control the display backlighting. <Ctrl+Shift+7> dims the display while <Ctrl+Shift+8> makes it brighter.

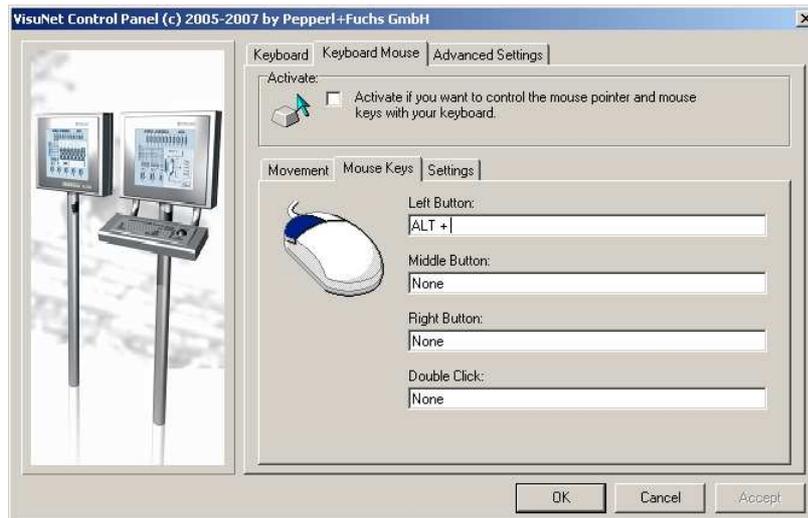
To simulate the mouse with the keyboard

You can simulate the mouse with the keyboard by selecting *<Keyboard Mouse>*. Any keys on the VisuNet PC can be assigned either to the movement of the mouse pointer or to the mouse buttons.

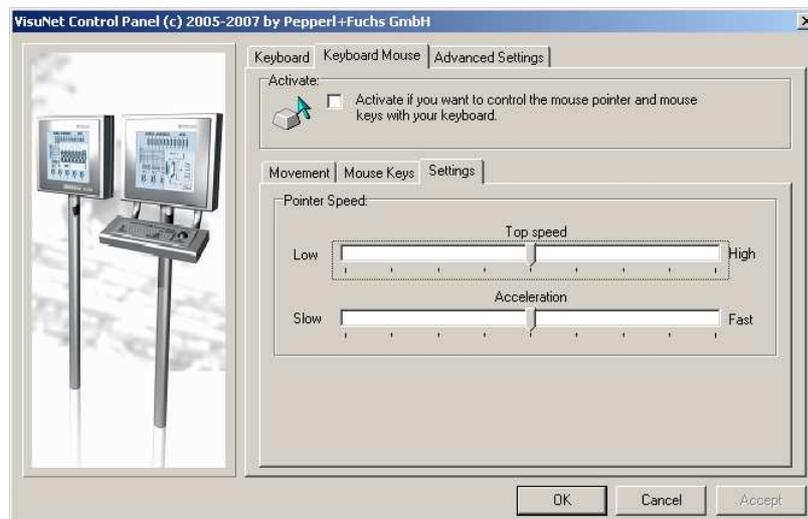


Choose *<Activate>* to activate the keyboard mouse.

<Movement> assigns keys to the mouse movement. Point the cursor at one of the fields and press the required key or shortcut on the VisuNet PC .



On the *<Mouse Keys>* tab, you can assign a key or shortcut to the left, right and middle mouse buttons as well as to a double click. Point the cursor at one of the fields and press the required key or shortcut on the VisuNet PC.

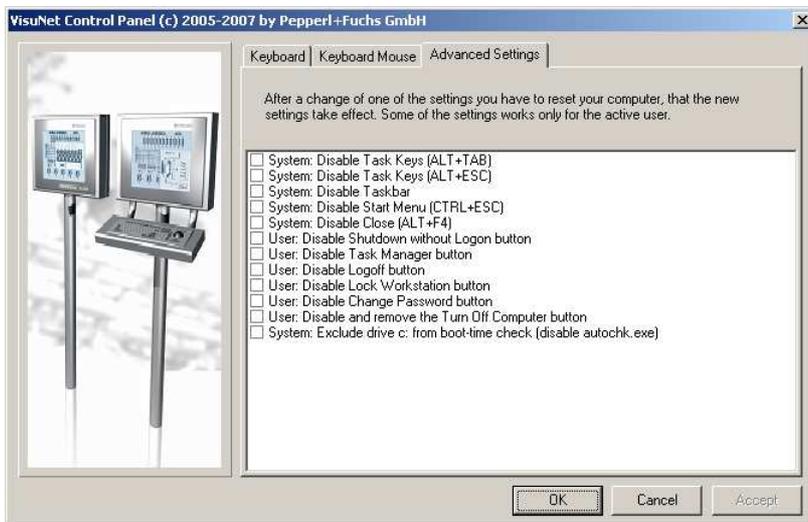


On the *<Settings>* tab, you can change the *speed* and *acceleration* settings.

Advanced settings

System settings can be changed with *<Advanced Settings>*. A basic distinction is made between settings that affect all users (system settings) and settings that only concern the user who is currently logged in (user settings).

Note: The system must be rebooted after changing the Advanced Settings.



System: Disable Task Keys (ALT+TAB)

ALT+TAB: Toggles between open elements or programs.

System: Disable Task Keys (ALT+TAB)

Toggles between elements or programs in the order in which they were opened.

System: Disable Taskbar

Hides the taskbar.

System: Disable Start Menu (CTRL+ESC)

CTRL+ESC: Opens the **Start** menu.

System: Disable Close (ALT+F4)

ALT+F4: Closes the active element or exits the active program. Exits Windows if no programs are open.

User: Disable Shutdown without Logon button

Disables the *<Shutdown>* button in the Login dialog.

User: Disable Task Manager button

Disables the *<Task List>* button in the dialog that opens when you press CTRL+ALT+DEL.

User: Disable Logoff button

Disables the *<Logoff>* button in the Start menu.

User: Disable Lock Workstation button

Disables the *<Lock Workstation>* button in the dialog that opens when you press CTRL+ALT+DEL.

User: Disable Change Password button

Disables the *<Change Password>* button in the dialog that opens when you press CTRL+ALT+DEL.

User: Disable and remove the Turn Off Computer button

Disables or removes the *<Turn Off Computer>* button in the Start menu.

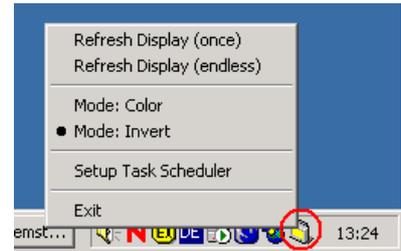
System: Exclude drive c: from boot-time check (disable autochk.exe)

Excludes the c: drive from *<autochk>* after a system crash. The system is booted much faster as a result, but any defective files are not automatically repaired.

3.4 Refresh display

LCD displays can be damaged by a continuously invariably lining up picture. Shade or color distortions can arise.

With this program this can be prevented or a regeneration of the display be accomplished



Application registers itself into the task scheduler of Windows and starts themselves automatically to the given dates.

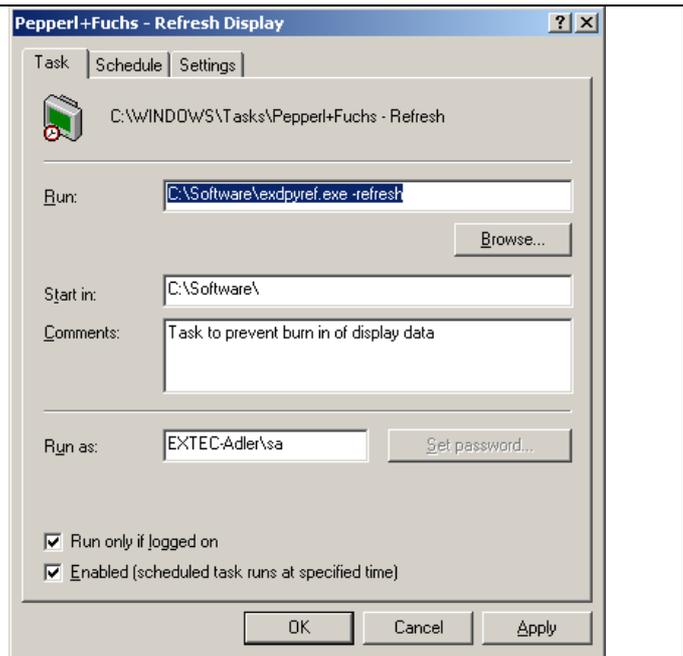
Resetting the display takes place via switching colors or inverting the display.

3.4.1 Installation refresh display

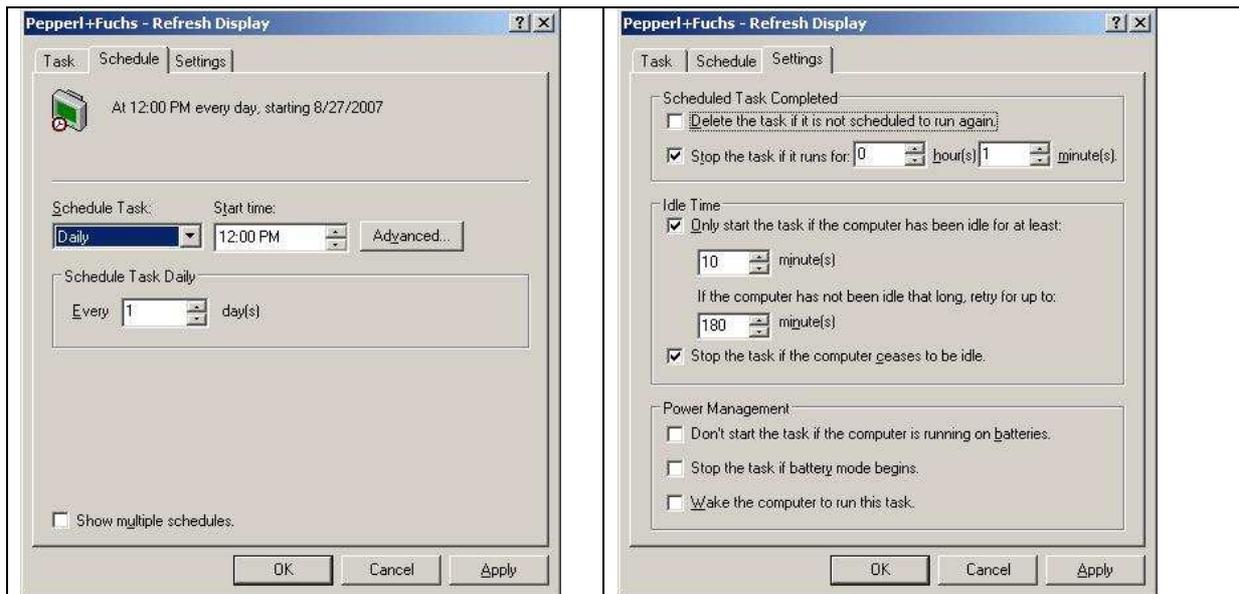
- 1) Start the installation. Activate <ExDpyRef32.exe>. Follow the instructions of the installation routine.

- 2) During the installation you are requested to enter the password for the user. Thus the program can be executed automatically by the task scheduler. Users and password must be equal as in the later operation.

Note:
the password must be absolutely entered.



- 3) the program starts normally between 0 o'clock and 3 o'clock at night, after the computer was not used for 10 minutes (Idle condition).



- 4) After the installation you can change the attitudes under *<Start / Programme / iPC Display Refresh / Setup>*.

3.4.2 Command line parameter

The program `<exdpyref.exe>` can be opened also via the command line. Use for this the following syntax:

```
exdpyref [-install] | [-uninstall] | [-setup] | [-refresh]
```

- install** Register call of program in the task scheduler. Defaults: Call between 0 o'clock and 3 o'clock, after the computer was not used for 10 minutes.
- uninstall** Delete call of program from the task scheduler.
- setup** Indicate the dialogue for attitudes of the task scheduler. If the Windows task scheduler is installed, this is used, otherwise the task scheduler installed in the program.
- refresh** Execute refresh display once.

3.4.3 Menu order

<p>After the program start you find the symbol in the symbol border down right apart from the time. A click with the right mouse button opens the menu:</p>	
---	--

- | | |
|-------------------------------|--|
| Refresh Display (once) | Execute display refresh once. The mode set before is used. |
|-------------------------------|--|
- | | |
|----------------------------------|--|
| Refresh Display (endless) | Execute display refresh endless. The mode set before is used. Over one mouse-click or key input the completion breaks off. |
| | Note: Hereby a regeneration of the display can be achieved! |
- | | |
|--------------------|---|
| Mode: Color | In this mode for 20 seconds the screen is dyed with different colors. In the center the text "refresh" stands. After always 2 second the color changes. |
|--------------------|---|
- | | |
|---------------------|--|
| Mode: Invert | This mode inverts the current display contents for 3 seconds, afterwards again the normal display is to be seen. |
|---------------------|--|
- | | |
|-----------------------------|--|
| Setup Task Scheduler | <p>Calls a dialogue, with which one time for the automatic completion can be defined. If the task scheduler from Windows is installed, this is used, otherwise the integrated task scheduler. You receive a detailed assistance to the Windows task scheduler in the on-line assistance of Windows.</p> <p>Note: Thus the damage of the display can be reduced with constantly same picture!</p> |
|-----------------------------|--|
- | | |
|-------------|---------------|
| Exit | Ends program. |
|-------------|---------------|

4 Software licenses PC

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4.1.1 MICROSOFT WINDOWS XP PROFESSIONAL EDITION SERVICE PACK 2

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GARANTIE LIMITÉE

Microsoft garantit que le Logiciel fonctionnera conformément aux documents inclus pendant une période de 90 jours suivant la date de réception.

Si une garantie ou condition implicite est créée par votre État ou votre territoire et qu'une loi fédérale ou provinciale ou État en interdit le déni, vous jouissez également d'une garantie ou condition implicite, MAIS UNIQUEMENT POUR LES DÉFAUTS DÉCOUVERTS DURANT LA PÉRIODE DE LA PRÉSENTE GARANTIE LIMITÉE (QUATRE-VINGT-DIX JOURS). IL N'Y A AUCUNE GARANTIE OU CONDITION DE QUELQUE NATURE QUE CE SOIT QUANT AUX DÉFAUTS DÉCOUVERTS APRÈS CETTE PÉRIODE DE QUATRE-VINGT-DIX JOURS.

Certains États ou territoires ne permettent pas de limiter la durée d'une garantie ou condition implicite de sorte que la limitation cidessus peut ne pas s'appliquer à vous.

Tous les suppléments ou toutes les mises à jour relatifs au Logiciel, notamment, les ensembles de services ou les réparations à chaud (le cas échéant) qui vous sont fournis après l'expiration de la période de quatre-vingt-dix jours de la garantie limitée ne sont pas couverts par quelque garantie ou condition que ce soit, expresse ou implicite.

LIMITATION DES RECOURS; ABSENCE DE DOMMAGES INDIRECTS OU AUTRES. Votre recours exclusif pour toute violation de la présente garantie limitée est décrit ciaprès. **Sauf pour tout remboursement au choix de Microsoft, si le Logiciel ne respecte pas la garantie limitée de Microsoft et, dans la mesure maximale permise par les lois applicables, même si tout recours n'atteint pas son but essentiel, VOUS N'AVEZ DROIT À AUCUNS DOMMAGES, NOTAMMENT DES DOMMAGES INDIRECTS.** Les modalités de la clause «Exclusion des dommages accessoires, indirects et de certains autres dommages » sont également intégrées à la présente garantie limitée. Certains États ou territoires ne permettent pas l'exclusion ou la limitation des dommages indirects ou accessoires de sorte que la limitation ou l'exclusion cidessus peut ne pas s'appliquer à vous. La présente garantie limitée vous donne des droits légaux spécifiques. Vous pouvez avoir d'autres droits qui peuvent varier d'un territoire ou d'un État à un autre. **VOTRE RECOURS EXCLUSIF.** L'obligation intégrale de Microsoft et de ses fournisseurs et votre recours exclusif seront, selon le choix de Microsoft de temps à autre sous réserve de toute loi applicable, a) le remboursement du prix payé, le cas échéant, pour le Logiciel ou b) la réparation ou le remplacement du Logiciel qui ne respecte pas la présente garantie limitée et qui est retourné à Microsoft avec une copie de votre reçu. Vous recevrez la compensation choisie par Microsoft, sans frais, sauf que vous êtes responsable des dépenses que vous pourriez engager (p. ex., les frais d'envoi du Logiciel à Microsoft). La présente garantie limitée est nulle si la défektivité du Logiciel est causée par un accident, un usage abusif, une mauvaise application, un usage anormal ou un virus. Tout Logiciel de remplacement sera garanti pour le reste de la période de garantie initiale ou pendant trente (30) jours, selon la plus longue entre ces deux périodes. À l'extérieur des États-Unis ou du Canada, ces recours ou l'un quelconque des services de soutien technique offerts par Microsoft ne sont pas disponibles sans preuve d'achat d'une source internationale autorisée. Pour exercer votre recours, vous devez communiquer avec Microsoft et vous adresser au Microsoft Sales Information Center/One Microsoft Way/Redmond, WA 98052-6399, ou à la filiale de Microsoft de votre pays.

DÉNI DE GARANTIES. La garantie limitée mentionnée ci-dessus constitue la seule garantie expresse qui vous est donnée et remplace toutes autres garanties expresses (s'il en est) mentionnées dans un document ou sur un emballage. **Sauf en ce qui a trait à la garantie limitée et dans la mesure maximale permise par les lois applicables, le Logiciel et les services de soutien technique (le cas échéant) sont fournis TELS QUELSET AVEC TOUS LES DÉFAUTS par Microsoft et ses fournisseurs, lesquels par les présentes dénie toutes autres garanties et conditions expresses, implicites ou en vertu de la loi, notamment (le cas échéant) les garanties, devoirs ou conditions implicites de qualité marchande, d'adaptation à un usage particulier, d'exactitude ou d'exhaustivité des réponses, des résultats, des efforts déployés selon les règles de l'art, d'absence de virus et de négligence, le tout à l'égard du Logiciel et de la prestation des services de soutien technique ou de l'omission d'une telle prestation. PAR AILLEURS, IL N'Y A AUCUNE GARANTIE OU CONDITION QUANT AU TITRE DE PROPRIÉTÉ, À LA JOUISSANCE OU LA POSSESSION PAISIBLE, À LA CONCORDANCE À UNE DESCRIPTION NI QUANT À UNE ABSENCE DE CONTREFAÇON CONCERNANT LE LOGICIEL.**

EXCLUSION DES DOMMAGES ACCESSOIRES, INDIRECTS ET DE CERTAINS AUTRES DOMMAGES. DANS LA MESURE MAXIMALE PERMISE PAR LES LOIS APPLICABLES, EN AUCUN CAS MICROSOFT OU SES FOURNISSEURS NE SERONT RESPONSABLES DES DOMMAGES SPÉCIAUX, CONSÉCUTIFS, ACCESSOIRES OU INDIRECTS DE QUELQUE NATURE QUE CE SOIT (NOTAMMENT, LES DOMMAGES À L'ÉGARD DU MANQUE À GAGNER OU DE LA DIVULGATION DE RENSEIGNEMENTS CONFIDENTIELS OU AUTRES, DE LA PERTE D'EXPLOITATION, DE BLESSURES CORPORELLES, DE LA VIOLATION DE LA VIE PRIVÉE, DE L'OMISSION DE REMPLIR TOUT DEVOIR, Y COMPRIS D'AGIR DE BONNE FOI OU D'EXERCER UN SOIN RAISONNABLE, DE LA NÉGLIGENCE ET DE TOUTE AUTRE PERTE PÉCUNIAIRE OU AUTRE PERTE DE QUELQUE NATURE QUE CE SOIT) SE RAPPORTANT DE QUELQUE MANIÈRE QUE CE SOIT À L'UTILISATION DU LOGICIEL OU À L'INCAPACITÉ DE S'EN SERVIR, À LA PRESTATION OU À L'OMISSION D'UNE TELLE PRESTATION DE SERVICES DE SOUTIEN TECHNIQUE OU AUTREMENT AUX TERMES DE TOUTE DISPOSITION DU PRÉSENT EULA OU RELATIVEMENT À UNE TELLE DISPOSITION, MÊME EN CAS DE FAUTE, DE DÉLIT CIVIL (Y COMPRIS LA NÉGLIGENCE), DE RESPONSABILITÉ STRICTE, DE VIOLATION DE CONTRAT OU DE VIOLATION DE GARANTIE DE MICROSOFT OU DE TOUT FOURNISSEUR ET MÊME SI MICROSOFT OU TOUT FOURNISSEUR A ÉTÉ AVISÉ DE LA POSSIBILITÉ DE TELS DOMMAGES.

LIMITATION DE RESPONSABILITÉ ET RECOURS. Malgré les dommages que vous puissiez subir pour quelque motif que ce soit (notamment, tous les dommages susmentionnés et tous les dommages directs ou généraux), l'obligation intégrale de Microsoft et de l'un ou l'autre de ses fournisseurs aux termes de toute disposition du présent EULA et votre recours exclusif à l'égard de tout ce qui précède (sauf en ce qui concerne tout recours de réparation ou de remplacement choisi par Microsoft à l'égard de tout manquement à la garantie limitée) se limite au plus élevé entre les montants suivants : le montant que vous avez réellement payé pour le Logiciel ou 5,00 \$US. Les limites, exclusions et dénis qui précèdent (y compris les clauses ci-dessus), s'appliquent dans la mesure maximale permise par les lois applicables, même si tout recours n'atteint pas son but essentiel.

La présente Convention est régie par les lois de la province d'Ontario, Canada. Chacune des parties à la présente reconnaît irrévocablement la compétence des tribunaux de la province d'Ontario et consent à instituer tout litige qui pourrait découler de la présente auprès des tribunaux situés dans le district judiciaire de York, province d'Ontario.

Au cas où vous auriez des questions concernant cette licence ou que vous désiriez vous mettre en rapport avec Microsoft pour quelque raison que ce soit, veuillez contacter la succursale Microsoft desservant votre pays, dont l'adresse est fournie dans ce produit, ou écrivez à : Microsoft Sales Information Center, One Microsoft Way, Redmond, Washington 98052-6399.

The following MICROSOFT GUARANTEE applies to you if you acquired this Software in any other country:

Statutory rights not affected - The following guarantee is not restricted to any territory and does not affect any statutory rights that you may have from your reseller or from Microsoft if you acquired the Software directly from Microsoft. If you acquired the Software or any support services in Australia, New Zealand or Malaysia, please see the "Consumer rights" section below.

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Consumer rights - Consumers in Australia, New Zealand or Malaysia may have the benefit of certain rights and remedies by reason of the Trade Practices Act and similar state and territory laws in Australia, the Consumer Guarantees Act in New Zealand and the Consumer Protection Act in Malaysia in respect of which liability cannot lawfully be modified or excluded. If you acquired the Software in New Zealand for the purposes of a business, you confirm that the Consumer Guarantees Act does not apply. If you acquired the Software in Australia and if Microsoft breaches a condition or warranty implied under any law which cannot lawfully be modified or excluded by this agreement then, to the extent permitted by law, Microsoft's liability is limited, at Microsoft's option, to: (i) in the case of the Software: a) repairing or replacing the Software; or b) the cost of such repair or replacement; and (ii) in the case of support services: a) re-supply of the services; or b) the cost of having the services supplied again.

Should you have any questions concerning this EULA, or if you desire to contact Microsoft for any reason, please use the address information enclosed in this Software to contact the Microsoft subsidiary serving your country or visit Microsoft on the World Wide Web at <http://www.microsoft.com>.