

Software Manual Windows 7

VisuNet Ex1 (Panel-PC)
PC 415, PC 419

VisuNet GMP (Panel-PC)
PC 219, PC 222

VisuNet EX2 GMP (Panel-PC)
PC 3719



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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 for the product line VisuNet PC

2.1 Delivery status of the product line VisuNet PC

The hard drive is divided into two partitions:

Partition	Contents	Size
1	Boot loader, factory reset	Approx. 6 GB
2	Operating system	Rest

When the system has finished booting, you can choose between <Windows 7> and <Factory Reset> in the boot menu. If you do not select either of these options within three seconds, the operating system starts automatically.

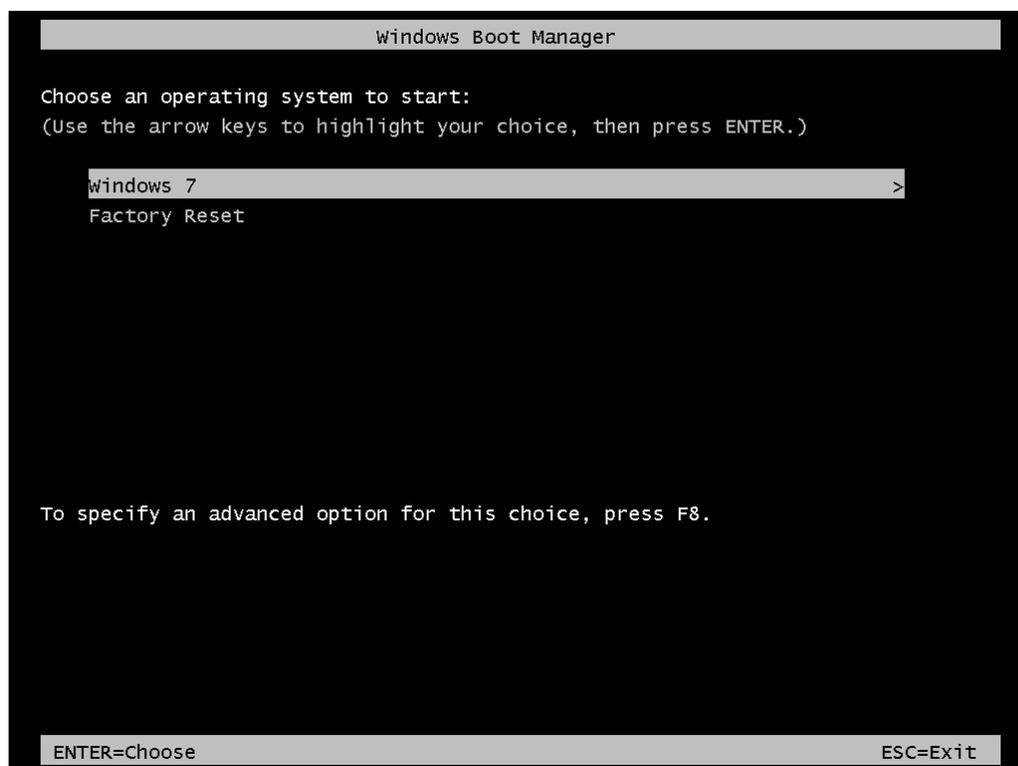


Fig. 1: Boot menu shortly after switching on the PCs

After you start the operating system, Windows 7 is installed on your C: drive. Partition 1 is not visible. All necessary drivers are preinstalled.

2.2 Factory reset – resetting the operating system partition to the delivery condition

This section describes how to reset your VisuNet PC to the delivery condition (factory reset).

Important: The factory reset causes all data on the operating system partition (partition 2) to be lost! You should save all important data before running a factory reset or make sure there is none anywhere on your computer. Remove any external data carriers, e.g. USB sticks.

- Start up the VisuNet PC. In the boot menu, choose <Factory Reset> to enter the configuration mode.



Fig. 2: <Factory Reset>

- Double-click on the <Factory Reset> icon and confirm the prompt with <OK>.
- The restore process prepares the operating system partition and copies the required data to your hard drive. The copy operation can take up to half an hour; no user actions are necessary.
- Reboot the VisuNet PC after all of the data has been copied. Windows then executes a few configuration steps. The system may be rebooted several times as a result.
- When Windows has finished configuring the system, you see a language selection menu. Choose the desired system language.
- Now define your country, the time and currency options, and the keyboard layout.
- Enter a user name and computer name in the screen which is opened next.
- You must specify a password in order to create a user account.

- Change the date and time if necessary.
- The Pepperl+Fuchs 7 Tools installation routine is launched. Choose the installation directory and specify which components you want to install.
- When the Pepperl+Fuchs 7 Tools installation routine has finished, you are automatically logged into the newly created user account. A message window is simultaneously displayed, warning you that the system will reboot after 45 seconds.
- You are automatically logged into the new user account after the system has rebooted successfully. This completes the factory reset.

2.3 How to install an operating system

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

An external USB-CD/DVD-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/DVD-ROM drive to the port provided for this purpose on the VisuNet PC .
- (2) Connect the required input devices (keyboard / mouse) to the PC if they are not already connected.
- (3) To do this, start the VisuNet PC and press the key during the boot phase in order to enter the BIOS. In the boot options, move "USB-CD-ROM" to the top of the boot list, to make sure it is launched first if you attempt to boot from a CD or DVD. Press <F10> to exit the BIOS and save your changes.
- (4) Insert the installation CD in the CD / DVD-ROM drive and reboot the PC. You may be prompted to press any key prior to booting from the CD or DVD.
- (5) Follow the instructions provided by the installation routine. Install the operating system in the second partition of your hard drive; be careful not to tamper with either the partition table or the first partition if you still want to have access to the factory reset option in order to restore the delivery condition in the future.
- (6) Install the system drivers, which you can find on the DVD supplied with the system, in the \$OEM\$ directory of the preinstalled Windows 7, or on our website (these drivers are only suitable for Windows 7).

Important: If this is a new installation, you are advised not to change the partition data on the hard drive or the contents of partition 1. **If you ignore this warning, you will no longer be able to reset the operating system partition to the delivery condition (factory reset)!**

2.4 How to install system driver and tools

After installing your operating system on the VisuNet PC, you should also install the necessary drivers. You can find the latest driver versions on the DVD supplied with the system or on our website.

Note: If your system was shipped by Pepperl+Fuchs with an operating system, all of the required drivers and tools can be found in the \$OEM\$ directory on the C:\ drive and are already preinstalled.

The drivers and tools themselves, and the \$OEM\$ directory structure in which they are contained, are described below.

Please note the following:

- If you download the drivers from our website, make sure they are the right ones for your VisuNet PC version.
- The \$OEM\$ directory structure is identical for all VisuNet PC versions. At the same time, the directory contents vary according to your particular hardware. Some directories may even be empty with certain versions, for instance because no tools exist for them or because the required drivers are already integrated in Windows.
- Take the time to read any readme files or other documents supplied with the drivers; they could contain useful additional information about the driver installation procedure.
- Some drivers and tools are provided as compressed (zipped) files or self-extracting archives. These files are not installed if you simply double-click on them; the contents of the archive are first extracted (unzipped) to a freely selectable target directory. Go to this directory after unzipping the archive to access the readme file and the installation routine.

Important:

Depending on your system settings, double-clicking on a zipped archive in Windows 7 can also mean that it is not unzipped but that you can navigate to it in the same way as in a normal directory structure. The archive must be unzipped before you can launch the installation routine. To do this, you must right-click on the archive file and choose <Extract All> instead of simply double-clicking.

- Open Windows Device Manager to check whether any unknown hardware is installed; if so, you may need to install more drivers.

2.4.1 0 – BIOS

BIOS image and installation tools for flashing the BIOS. Most flash tools have to be accessed from the command prompt using suitable transfer parameters, and require a real DOS environment. With some device versions, you cannot flash the BIOS from Windows for this reason. Please read the readme file carefully for more information.

2.4.2 1 – Intel Chipset

Drivers for the Intel chipset.

2.4.3 2 – Touch Screen Controller

You can find the drivers for the touch screen controller here. A detailed description of how to install the TSharc touch screen controller is provided below:

2.4.3.1 Installation



For installation the user rights of an administrator are necessary!

- Unzip the archive file UniWinDriver641 to any target directory. To do this, right-click on <Extract All>.
- You must have Administrator rights enabled in order to install the controller. You should therefore right-click on the setup.exe file in the target directory and choose <Run as Administrator>. Click on "Yes" to confirm the UAC message that now appears on the screen.
- Follow the instructions provided by the installation routine. Click on <Next> whenever you are prompted to do so:

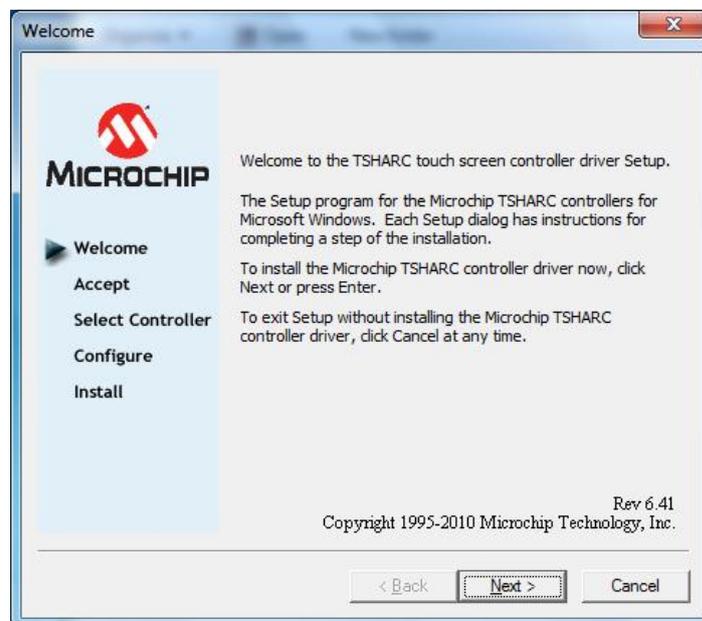


Fig. 3: Installation routine of the Touch Screen Controllers

- Check the box at the bottom of the Software License Agreement to confirm that you accept all of the license terms.

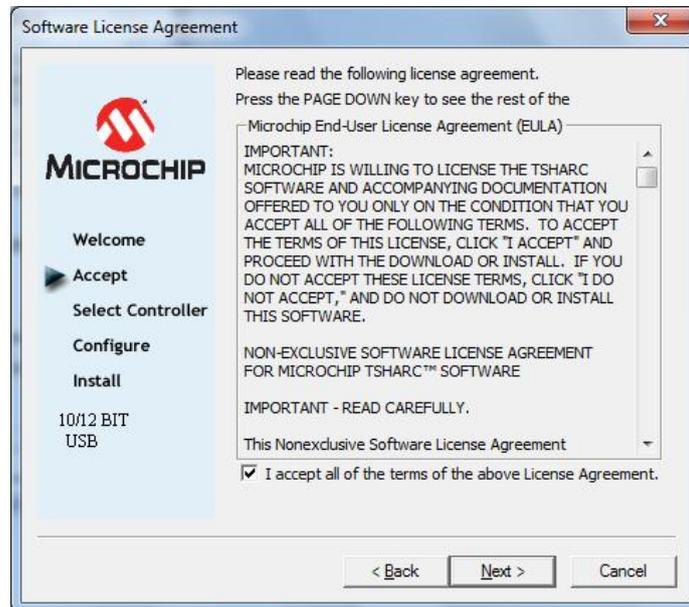


Fig. 4: Software License Agreement

- Select <12 or 10 Bit Controller> as the controller type and <USB> as the controller interface.

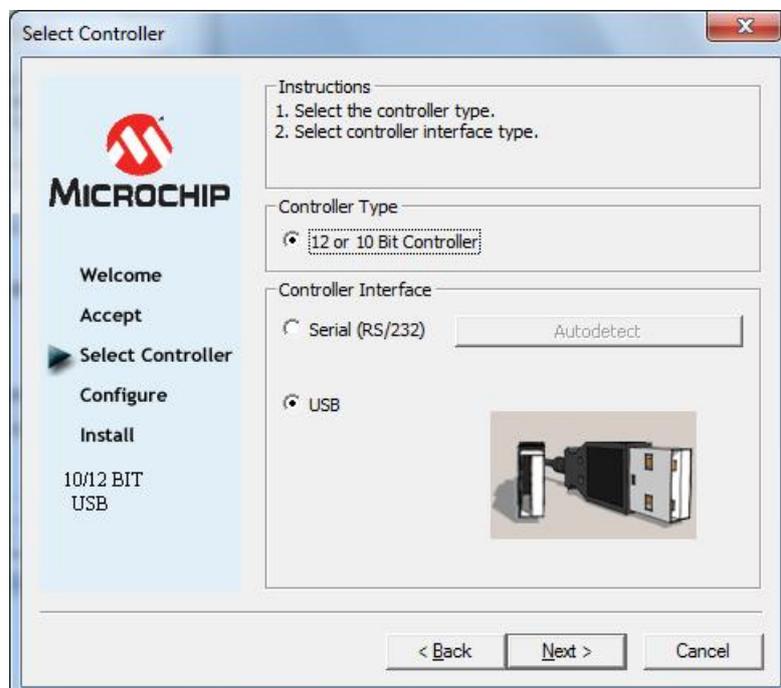


Fig. 5: Assortment of Controllers

- Check the box next to <Automatically start Touch Screen Tray Application>, then click on <Finish> to complete the configuration.



Fig. 6: Finish installation

2.4.3.2 Calibration program

Launch the <Microchip TSharc Control Panel> from the Start menu. The Control Panel opens with the Screen Selection tab displayed and the calibration automatically begins after about 15 seconds. You must touch each point in turn.

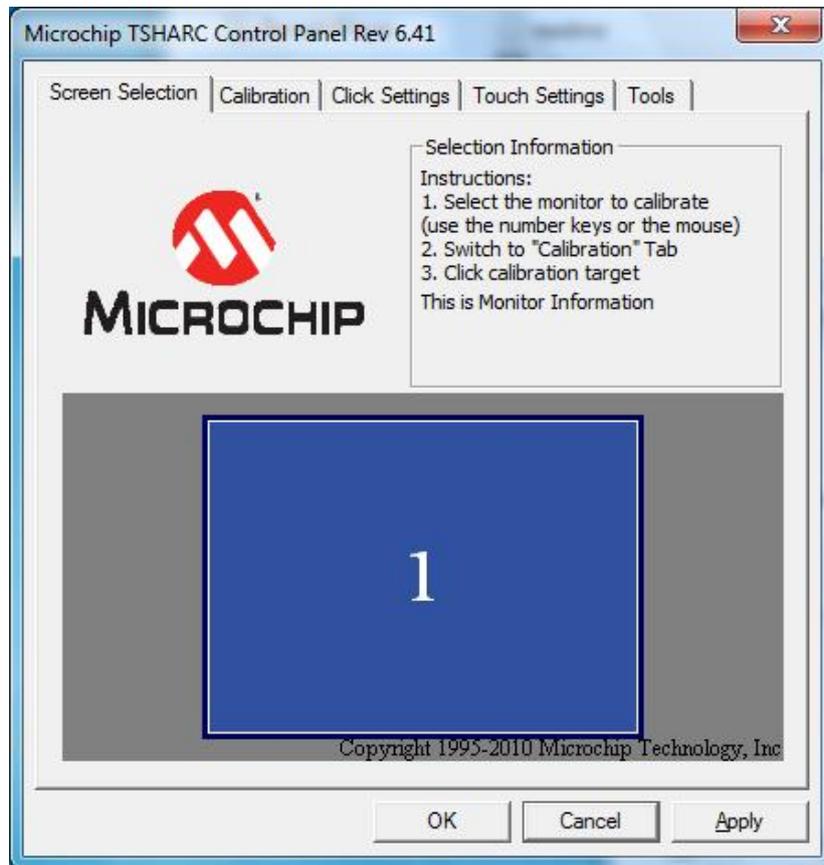


Fig. 7: <Screen Selection> tab

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!

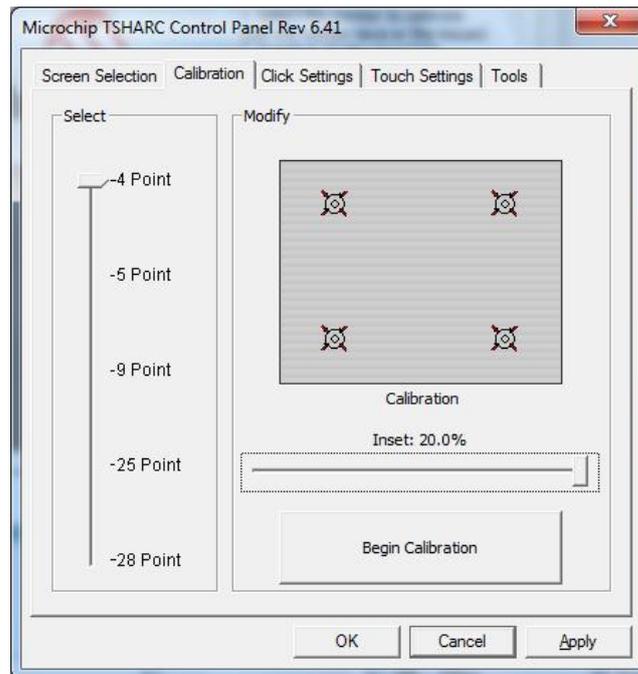


Fig. 8: <Calibration> tab

- **<Calibration> tab**

On this tab, you set the various calibration options (number of calibration points and inset) and begin the calibration.

→ The calibration options comprise the number of calibration points and their distance from the edge of the screen (inset).

	<p>Note: For the largest accuracy calibrate as much points as possible with small inset.</p>
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→ You begin the calibration by clicking on the <Begin Calibration> button at the bottom of the dialog.

	<p>Note: With diagonal view to the display a misalignment between fingers and calibration point (parallax error) arises..</p>
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→ You must confirm the calibration with <Apply>. The calibration is discarded if you click on <Cancel> or do not confirm it with <Apply> within approximately 100 seconds.

- **<Click Settings> tab**

You can change the double-click settings on this tab.

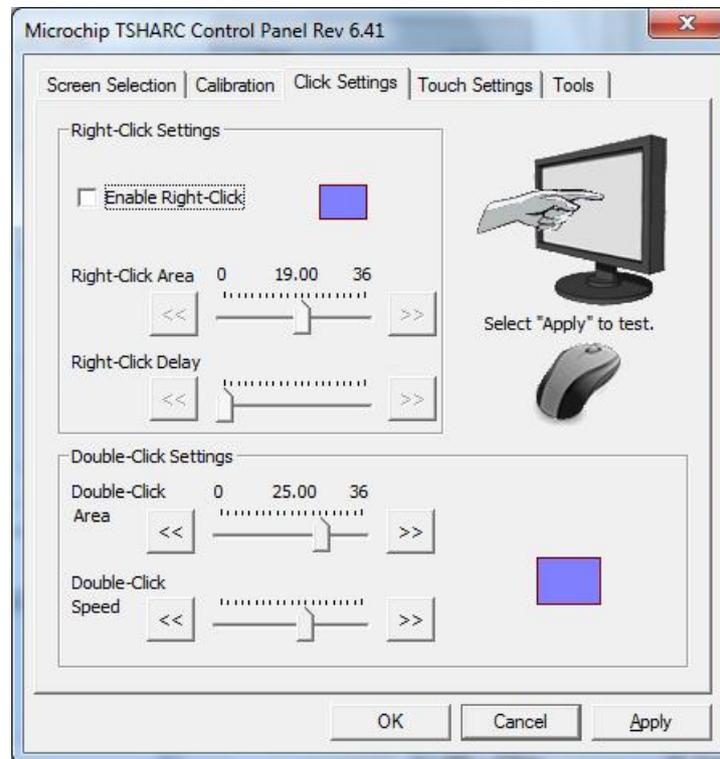


Fig. 9: <Click Settings> tab

→ Check the <Enable Right-Click> box if you want to simulate the right mouse button. Touching the same point on the screen for a defined period of time is then interpreted as a right click. You can set the click area and the length of time for which the screen must be touched in order to execute a right-click event using the two sliders underneath the box.

→ You can set the click area and the double-click speed (i.e. the time that must elapse before a double-click event is executed) using the two sliders at the bottom of the dialog.

→ You can test your right-click and double-click settings on the right.

- **<Touch Settings> tab**

Among other things, you can specify here whether the touch screen should respond as soon as you touch down or not until you touch up.

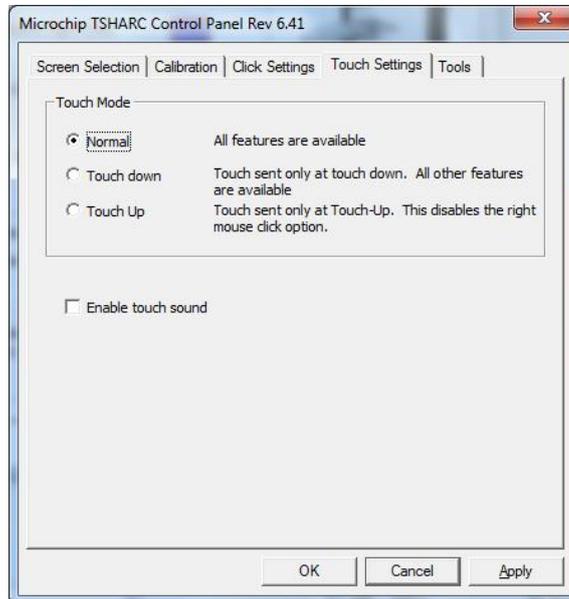


Fig. 10: <Touch Settings> tab

- **<Tools> tab**

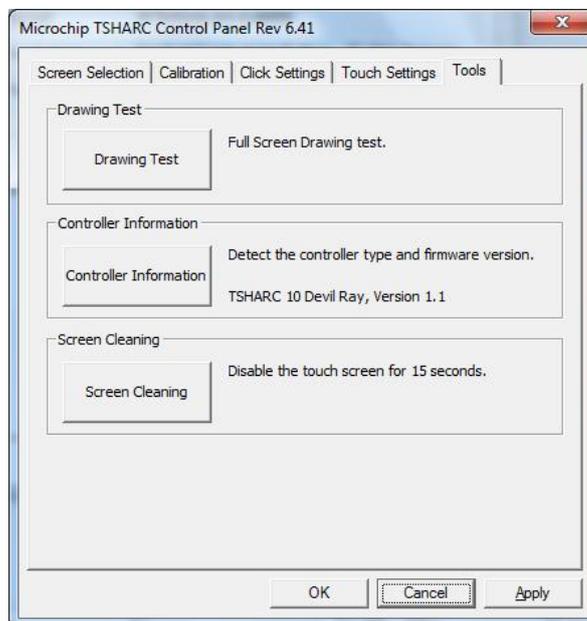


Fig. 11 <Tools> tab

This tab provides access to various tools:

- A drawing test to test the touch screen and calibration accuracy
- Information about the TSharc touch screen controller
- The option of disabling the touch screen for 15 seconds (e.g. in order to clean it)

2.4.4 3 - Display Adapter

Graphics card drivers. Some screen resolutions are only available after you install a suitable driver.

2.4.5 4 – Network Adapter

Drivers for the network adapter. You may have to install a network driver before you can access the local or global network.

2.4.6 5 – USB Adapter

Drivers for the USB adapter. This directory may be empty if you do not need any drivers.

2.4.7 6 – Sound Card

Drivers for the sound card.

2.4.8 7 – USB Serial Port Driver

- If the driver is provided as an archive file, you must first of all unzip this archive to any directory.
- To install the driver, open Device Manager and double-click on <USB Serial Port>. Now update the driver by specifying the directory to which you unzipped the archive as the driver path.
- 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.

2.4.9 10 – WLAN

- Make sure USB2.0 support is disabled in the BIOS.
- Right-click on utility.exe, then check the <Run this program in compatibility mode for:> box under <Compatibility> and choose <Windows Vista (Service Pack 2)> as the compatibility mode.
- 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 for more information about the installation procedure.

2.4.10 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.

Important note on drive optimization: Windows 7 supports the so-called TRIM command, which optimizes SSD drives. Several manufacturers offer optimization tools for older operating systems like Windows XP that do not support this command. You should normally optimize your drive at regular intervals. Please also read the documentation supplied with the tools.

2.4.11 50 – P+F 7 Tools

- Pepperl+Fuchs supplies a number of add-ons that are designed to help you work even more efficiently with your VisuNet PC. You can install Pepperl+Fuchs 7 Tools as follows:
- Launch the installation routine by double-clicking on PF7Tools.exe, then follow the instructions provided on the screen.
- Choose which applications you want to install under <Select Components>.

2.5 Data backups

2.5.1 Data backup concept in Windows 7

Using the factory reset option, you can reset your operating system partition to the delivery condition. Any data of your own that has been saved on the hard drive is lost. Windows 7 is shipped with an efficient mechanism for backing up this data.

How to back up your data

You back up your data as follows:

- (1) Open the Properties dialog for the drive you want to back up by right-clicking on this drive in File Explorer and choosing <Properties>.
- (2) Go to the <Tools> tab and click on <Back up now>.
- (3) Now click on <Set up backup> to specify all information needed by the system to back up your data.

Note: You should select an external drive as the backup destination. This can be another computer in the local network, for instance, to which the backup is then copied provided this is allowed by the network share settings.

Note: For a detailed description of the Windows backup mechanism, refer to the online help.

How to restore a backup

You restore a data backup as follows:

- (1) Open the Properties dialog for the drive you want to back up by right-clicking on this drive in File Explorer and choosing <Properties>.
- (2) Go to the <Tools> tab and click on <Back up now>.
- (3) Under <Restore>, click on the backup you want to restore. Choose <Select another backup to restore files from> if the list does not contain any backups, or if it does not contain the backup you are looking for, in order to search for backups on another source (e.g. in the local network).

Note: If the backup you want to restore is stored on another computer in the local network, make sure the network share settings there allow the VisuNet PC to access it.

Note: For a detailed description of the Windows backup mechanism, refer to the online help.

2.6 Language settings

2.6.1 Changing the language of menus and dialog boxes

Some languages are installed on the system in the factory condition with *Windows 7 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 <Change Display Language> dialog.
- (2) Choose a new language under <Display Language> in the <Choose Display Language> dialog.
- (3) When you confirm the new language with <OK> or <Apply>, you see a message telling you that this change will only take effect after you log in again. If you want the new display language to apply immediately, click on <Log off now>; otherwise, click on <Cancel>.

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.

2.6.1.1 Delete a language

Attention	You cannot reselect or reinstall a language after you have removed it! We advise you to keep all languages!
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To save memory you can permanent delete languages.

This frees approximately 150 to 600 MB of memory per language on your hard drive, depending on the language package.

You remove a language as follows:

- (1) Click on the Windows Start button, then type <lpksetup.exe> in the search box and press the Enter key.
- (2) Choose <Uninstall Display Languages>.
- (3) Check the boxes next to all languages you want to remove and confirm your selection by clicking on <Next>.

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.
- To remove a language from the language selection list without uninstalling it, delete the relevant entry from the registry under <HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\MUI\UILanguages>.
- Preinstalled languages and language IDs:

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

2.7 Applications

2.7.1 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 7. Windows 7 is shipped with a compatibility mechanism to enable you to work with older applications. Proceed as follows to do so:

- (1) Right-click on the application that is causing the problems.
- (2) Choose <Troubleshoot Compatibility>.
- (3) Follow the instructions provided on the screen.

You can also specify the various compatibility parameters manually:

- (1) Open <File Explorer> and select the application that is causing the problems.
- (2) Open the Properties dialog by selecting <Organize / Properties>.
- (3) On the <Compatibility> tab, you can correct the compatibility mode and specify various other settings; for instance, you can choose a default screen resolution or launch the application with Administrator rights enabled.
- (4) Now launch the modified application again and run a test to see if the problems still persist with the new compatibility settings.

Note:

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

2.8 System maintenance

2.8.1 Launching Windows in safe mode

If your system will no longer boot, you can try launching Windows in safe mode. Safe mode is a special operating system mode which only loads basic drivers, in other words your VisuNet PC works with very restricted functionality in a minimum configuration. It gives you a chance to uninstall software components (such as device drivers) that were installed previously but have either not been working correctly or been causing the operating system to crash.

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 Networking	Windows starts in safe mode with the Windows GUI and network drivers.
Safe Mode with Command Prompt	Windows starts in safe mode with the command prompt (i.e. without the Windows GUI).
Repair your System	You are given access to various system recovery, repair, and test tools.

3 Additional software supplied by P+F for VisuNet PC

	<p>Hinweis:</p> <p>All tools mentioned here are only available in case of a pre-installation of the operating system or after installation of the Pepperl+Fuchs 7 Tools from Pepperl+Fuchs GmbH !</p>
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3.1 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.

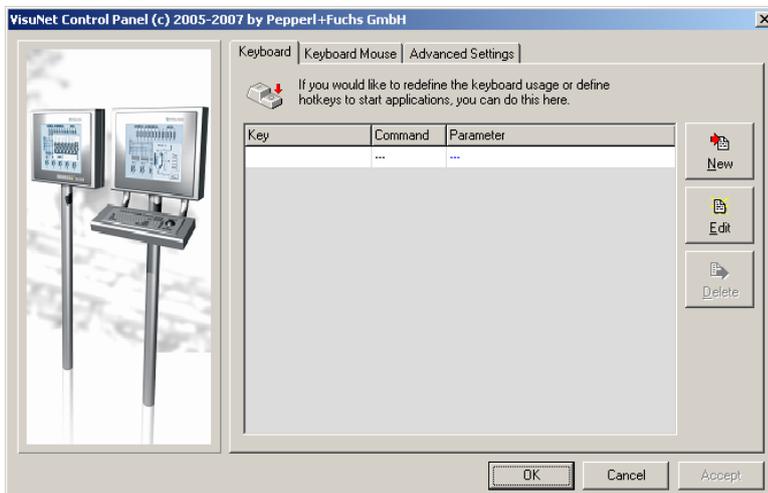
Open the user interface, either with <Start / All Programs / Pepperl+Fuchs Tools / Pepperl+Fuchs Hotkey Control Panel> or from Control Panel with <Start / Control Panel>, then double-click on the <VISUNET Settings> icon.



Note: If you cannot see the <VISUNET Settings> icon in Control Panel, you must <View by> to either <Large icons> or <Small icons>.

set

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



The 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.

Fig. 12: Hotkey Tool

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.



Fig. 13: example 1

Example 2:

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

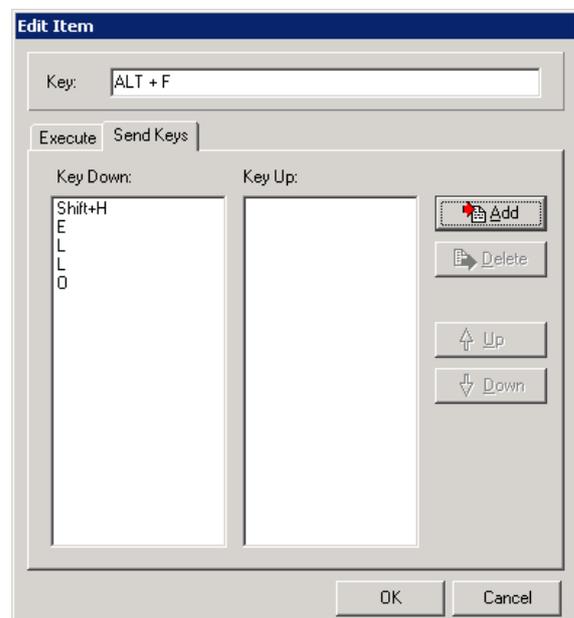


Fig. 14: example 2

Predefined shortcuts

You can use the shortcuts <Ctrl+Shift+7> and <Ctrl+Shift+8> to control the display backlighting on some VisuNet PC variants. <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.

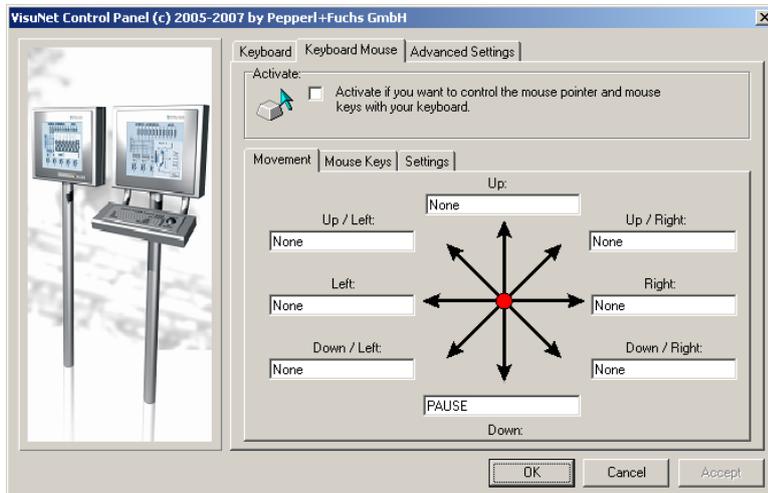


Fig. 15: Keyboard Mouse tab *<Movement>*

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.

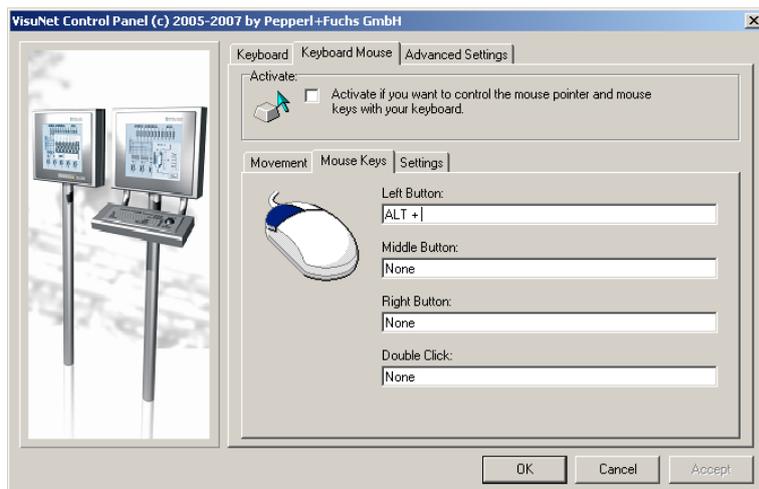


Fig. 16: Keyboard Mouse tab *<Mouse Keys>*

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.

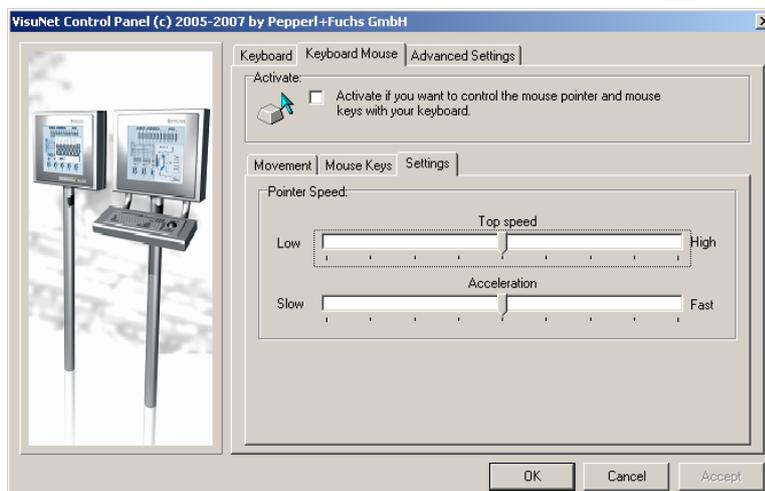


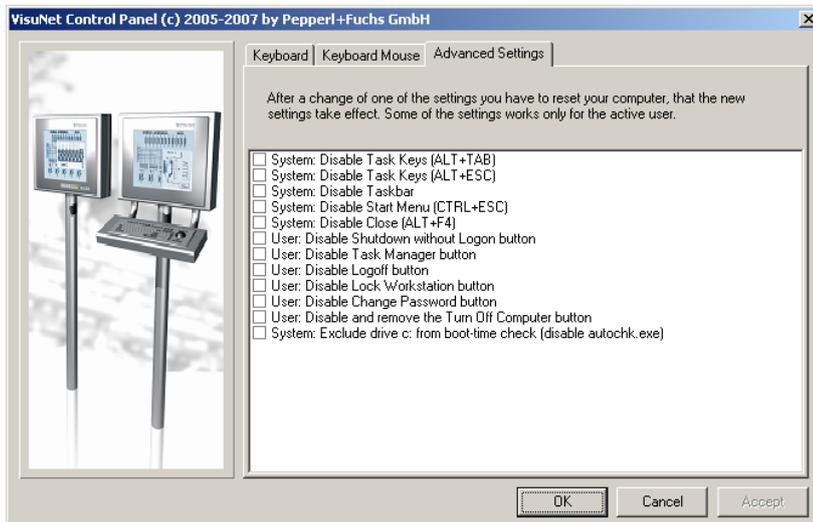
Fig. 17: Keyboard Mouse tab *<Settings>*

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.

Fig. 18: Advanced Setting tab

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.



3.2 Previs – Prevent Image Sticking

Previs is a special software application that reduces image sticking on LC displays.

3.2.1 Introduction

If static graphics (such as process graphics) are displayed on the screen for a long time, the image may be burnt into an LC display (image sticking); shadows and color distortion are typical symptoms. This distortion is still visible if the monitor is switched off and then switched on again.

Previs combats image sticking without significantly impairing screen legibility.

3.2.2 Tray icon

Previs is automatically launched when you log into your user account; a tray icon in the taskbar in the bottom right-hand corner provides information about its enable status:

 (red)	Previs has been started but is not enabled (you must enable it "manually").
 (yellow)	Previs has been started but is sleeping (outside of the enable interval).
 (green)	Previs has been started and is enabled. In case of user inactivity, the screen saver is activated.

By right-clicking on this icon, you open a shortcut menu containing the following functions:

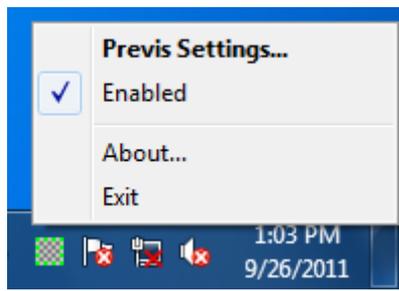


Fig. 19: Popup menu via TrayIcon from Previs

The shortcut menu is described in detail below.

3.2.3 Previs Settings menu

This dialog contains various Previs settings:

Fig. 20: Default-Settings shows the recommended default values (Previs is active 24/7 and is enabled after 60 minutes of user inactivity).

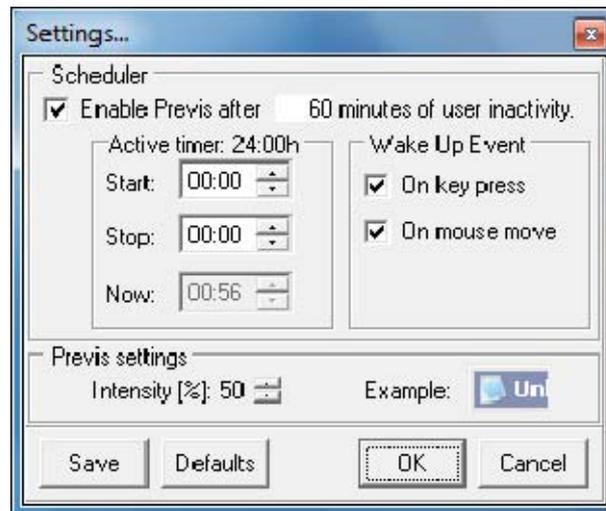


Fig. 20: Default-Settings

Enable Previs: You enable or disable Previs here. Outside of the enable interval (see below), Previs is still active but sleeping.

XX minutes of user inactivity: This box specifies the time in minutes from the last user activity until the screen saver is activated.

Note:

Previs is only enabled during the enable interval. Outside of this interval, it "sleeps", i.e. the screen saver is not activated.

Start: Here, you specify the Previs start time. This time determines the start of the enable interval.

Stop: Here, you specify the Previs stop time. This time determines the end of the enable interval.

Now: Here, you set the current time (gray background: the time has not been changed and will be refreshed; white background: the time has been changed and will not be refreshed).

On key press: The screen saver responds to keyboard inputs and is deactivated.

On mouse move: The screen saver responds to mouse inputs and is deactivated.

Intensity: This setting specifies the intensity of the screen saver. Higher values afford better protection against burn-in effects but impair screen legibility and vice versa. There is a preview icon to the right of this setting.

Save: Your changes are saved permanently.

Defaults: The recommended (default) settings are restored.

OK: Your changes are saved.

Cancel: Your changes are discarded.

Note:

The screen saver activation settings apply to the complete desktop, in other words the screen saver is activated on all monitors of an extended desktop.

Note:

The shortcut key <SHIFT>+<ESC> causes the screen saver to pause. This can be useful if the *On key press* and / or *On mouse move* options are disabled.

Note:

If the screen saver is active, it steals the focus from the currently active application. Mouse or keyboard inputs are no longer communicated to this application. In case of user inactivity, the input focus is switched back to the original application.

3.2.4 Enabled menu

You enable or disable Previs here. Outside of the enable interval, Previs is still active but sleeping.

3.2.5 About menu

This shortcut menu opens a dialog containing version and copyright information:



Fig. 21: Dialog About

3.2.6 Exit menu

Previs is closed and completely removed from memory.

3.2.7 Demo mode

Previs will only run on certain devices. If you attempt to launch it on a non-certified device, it runs in Demo mode for ten minutes and is subsequently disabled.

3.2.8 How to launch Previs from the command prompt

You can launch Previs from the command prompt using the following parameters:

```
previs.exe [/config]
```

- /config
The configuration dialog opens as soon as you start Previs. If another instance of Previs is already open, you see the configuration dialog for this instance instead.

3.3 Configuration file

The configuration file `previs.ini` must be contained in the same directory as `previs.exe`. All currently valid settings are stored in this file.

`previs.ini` comprises two parts: `[Default]` and `[User]`.

By choosing `<Save>`, you write to the `[User]` part.

By choosing `<Default>`, you read from the `[Default]` part.

The system reads the values in the ini file as follows each time you start Previs:

1. The key is read from the `[User]` part. If no key exists, then
2. The key is read from the `[Default]` part. If no key exists, then
3. The fallback values below are used instead:

```
PrevisMode=1
IdleTimeout=60
Active=1
WakeUpOnKey=1
WakeUpOnMouse=1
FullScreen=1
Color=16777215
Intensity=50
TimerFrom=00:00:00
TimerTo=00:00:00
```

4 MICROSOFT SOFTWARE LICENSE TERMS

WINDOWS 7 ULTIMATE

These license terms are an agreement between you and

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- the software installer that distributes the software with the computer.

Please read them. They apply to the software named above, which includes the media on which you received it, if any. Printed-paper license terms, which may come with the software take the place of any on-screen license terms. These terms also apply to any Microsoft

- updates,
- supplements,
- Internet-based services, and
- support services

for this software, unless other terms accompany those items. If so, those other terms apply.

If you obtain updates or supplements directly from Microsoft, Microsoft, and not the manufacturer or installer, licenses those to you.

By using the software, you accept these terms. If you do not accept them, do not use the software. Instead, contact the manufacturer or installer to determine its return policy. You must comply with that policy, which might limit your rights or require you to return the entire system on which the software is installed.

As described below, using the software also operates as your consent to the transmission of certain computer information during activation, validation and for Internet-based services.

If you comply with these license terms, you have the rights below for each license you acquire.

1. OVERVIEW.

a. Software. The software includes desktop operating system software. This software does not include Windows Live services. Windows Live services are available from Microsoft under a separate agreement.

b. License Model. The software is licensed on a per copy per computer basis. A computer is a physical hardware system with an internal storage device capable of running the software. A hardware partition or blade is considered to be a separate computer.

2. INSTALLATION AND USE RIGHTS.

a. One Copy per Computer. The software license is permanently assigned to the computer with which the software is distributed. That computer is the "licensed computer."**b. Licensed Computer.** You may use the software on up to two processors on the licensed computer at one time. Unless otherwise provided in these license terms, you may not use the software on any other computer.

c. Number of Users. Unless otherwise provided in these license terms, only one user may use the software at a time on the licensed computer.

d. Alternative Versions. The software may include more than one version, such as 32-bit and 64-bit. You may use only one version at one time. If the manufacturer or installer provides you with more than one language version, you may use only one language version at one time.

3. ADDITIONAL LICENSING REQUIREMENTS AND/OR USE RIGHTS.

a. Multiplexing. Hardware or software you use to

- pool connections, or
- reduce the number of devices or users that directly access or use the software (sometimes referred to as "multiplexing" or "pooling"), does not reduce the number of licenses you need.

b. Font Components. While the software is running, you may use its fonts to display and print content. You may only

- embed fonts in content as permitted by the embedding restrictions in the fonts; and
- temporarily download them to a printer or other output device to print content.

c. Icons, Images and Sounds. While the software is running, you may use but not share its icons, images, sounds, and media. The sample images, sounds and media provided with the software are for your non-commercial use only.

d. Use with Virtualization Technologies. Instead of using the software directly on the licensed computer, you may install and use the software within only one virtual (or otherwise emulated) hardware system on the licensed computer. When used in a virtualized environment, content protected by digital rights management technology, BitLocker or any full volume disk drive encryption technology may not be as secure as protected

content not in a virtualized environment. You should comply with all domestic and international laws that apply to such protected content.

e. Device Connections. You may allow up to 20 other devices to access software installed on the licensed computer to use only File Services, Print Services, Internet Information Services and Internet Connection Sharing and Telephony Services.

f. Remote Access Technologies. You may access and use the software installed on the licensed computer remotely from another device using remote access technologies as follows.

- Remote Desktop. The single primary user of the licensed computer may access a session from any other device using Remote Desktop or similar technologies. A "session" means the experience of interacting with the software, directly or indirectly, through any combination of input, output and display peripherals. Other users may access a session from any device using these technologies, if the remote device is separately licensed to run the software.

- Other Access Technologies. You may use Remote Assistance or similar technologies to share an active session.

g. Media Center Extender. You may have five Media Center Extender sessions (or other software or devices which provide similar functionality for a similar purpose) running at the same time to display the software user interface or content on other displays or devices.

h. Electronic Programming Guide. If the software includes access to an electronic programming guide service that displays customized television listings, a separate service agreement applies to the service. If you do not agree to the terms of the service agreement, you may continue to use the software, but you will not be able to use the electronic programming guide service. The service may contain advertising content and related data, which are received and stored by the software. The service is not available in all areas. Please consult the software information for instructions on accessing the service agreement.

i. Related Media Information. If you request related media information as part of your playback experience, the data provided to you may not be in your local language. Some countries or regions have laws and regulations which may restrict or limit your ability to access certain types of content.

j. Worldwide Use of the Media Center. Media Center is not designed for use in every country. For example, although the Media Center information may refer to certain features such as an electronic programming guide or provide information on how to configure a TV tuner, these features may not work in your area. Please refer to the Media Center information for a list of features that may not work in your area.

4. MANDATORY ACTIVATION.

Activation associates the use of the software with a specific computer. During activation, the software will send information about the software and the computer to Microsoft. This information includes the version, language and product key of the software, the Internet protocol address of the computer, and information derived from the hardware configuration of the computer. For more information, see

go.microsoft.com/fwlink/?Linkid=104609. By using the software, you consent to the transmission of this information. If properly licensed, you have the right to use the version of the software installed during the

installation process up to the time permitted for activation. **Unless the software is activated, you have no right to use the software after the time permitted for activation.** This is to prevent its unlicensed use.

You are not permitted to bypass or circumvent activation. If the computer is connected to the Internet, the software may automatically connect to Microsoft for activation. You can also activate the software manually by Internet or telephone. If you do so, Internet and telephone service charges may apply. Some changes to your computer components or the software may require you to reactivate the software. **The software will remind you to activate it until you do.**

5. VALIDATION.

a. Validation verifies that the software has been activated and is properly licensed. It also verifies that no unauthorized changes have been made to the validation, licensing, or activation functions of the software. Validation may also check for certain malicious or unauthorized software related to such unauthorized changes.

A validation check confirming that you are properly licensed permits you to continue to use the software, certain features of the software or to obtain additional benefits. **You are not permitted to circumvent validation.** This is to prevent unlicensed use of the software. For more information, see

go.microsoft.com/fwlink/?Linkid=104610. **b.** The software will from time to time perform a validation check of

the software. The check may be initiated by the software or Microsoft. To enable the activation function and validation checks, the software may from time to time require updates or additional downloads of the validation, licensing or activation functions of the software. The updates or downloads are required for the proper functioning of the software and may be downloaded and installed without further notice to you. During or after a validation check, the software may send information about the software, the computer and the results of the validation check to Microsoft. This information includes, for example, the version and product key of the software, any unauthorized changes made to the validation, licensing or activation functions of the software, any related malicious or unauthorized software found and the Internet protocol address of the

computer. Microsoft does not use the information to identify or contact you. By using the software, you consent to the transmission of this information. For more information about validation and what is sent during or after a validation check, see go.microsoft.com/fwlink/?Linkid=104611.

c. If, after a validation check, the software is found to be counterfeit, improperly licensed, or a non-genuine Windows product, or if it includes unauthorized changes, then the functionality and experience of using the software will be affected. For example:

Microsoft may

- repair the software, and remove, quarantine or disable any unauthorized changes that may interfere with the proper use of the software, including circumvention of the activation or validation functions of the software; or
- check and remove malicious or unauthorized software known to be related to such unauthorized changes; or
- provide notice that the software is improperly licensed or a non-genuine Windows product;

and you may

- receive reminders to obtain a properly licensed copy of the software; or
- need to follow Microsoft's instructions to be licensed to use the software and reactivate;

and you may not be able to

- use or continue to use the software or some of the features of the software; or
- obtain certain updates or upgrades from Microsoft.

d. You may only obtain updates or upgrades for the software from Microsoft or authorized sources. For more information on obtaining updates from authorized sources see go.microsoft.com/fwlink/?Linkid=104612.

6. POTENTIALLY UNWANTED SOFTWARE. If turned on, Windows Defender will search your computer for "spyware," "adware" and other potentially unwanted software. If it finds potentially unwanted software, the software will ask you if you want to ignore, disable (quarantine) or remove it. Any potentially unwanted software rated "high" or "severe," will automatically be removed after scanning unless you change the default setting. Removing or disabling potentially unwanted software may result in

- other software on your computer ceasing to work, or
- your breaching a license to use other software on your computer.

By using this software, it is possible that you will also remove or disable software that is not potentially unwanted software.

7. INTERNET-BASED SERVICES. Microsoft provides Internet-based services with the software. It may change or cancel them at any time.

a. Consent for Internet-Based Services. The software features described below and in the Windows 7 Privacy Statement connect to Microsoft or service provider computer systems over the Internet. In some cases, you will not receive a separate notice when they connect. In some cases, you may switch off these features or not use them. For more information about these features, see the Windows 7 Privacy Statement at go.microsoft.com/fwlink/?linkid=104604. **By using these features, you consent to the transmission of the information described below.** Microsoft does not use the information to identify or contact you.

Computer Information. The following features use Internet protocols, which send to the appropriate systems computer information, such as your Internet protocol address, the type of operating system, browser and name and version of the software you are using, and the language code of the computer where you installed the software. Microsoft uses this information to make the Internet-based services available to you.

- Plug and Play and Plug and Play Extensions. You may connect new hardware to your computer, either directly or over a network. Your computer may not have the drivers needed to communicate with that hardware. If so, the update feature of the software can obtain the correct driver from Microsoft and install it on your computer. An administrator can disable this update feature.

- Windows Update. To enable the proper functioning of the Windows Update service in the software (if you use it), updates or downloads to the Windows Update service will be required from time to time and downloaded and installed without further notice to you.

- Web Content Features. Features in the software can retrieve related content from Microsoft and provide it to you. Examples of these features are clip art, templates, online training, online assistance and Appshelp. You may choose not to use these web content features.

- Digital Certificates. The software uses digital certificates. These digital certificates confirm the identity of Internet users sending X.509 standard encrypted information. They also can be used to digitally sign files and macros, to verify the integrity and origin of the file contents. The software retrieves certificates and updates certificate revocation lists over the Internet, when available.

- Auto Root Update. The Auto Root Update feature updates the list of trusted certificate authorities. You can switch off the Auto Root Update feature.

- Windows Media Digital Rights Management. Content owners use Windows Media digital rights management technology (WMDRM) to protect their intellectual property, including copyrights. This software and third party software use WMDRM to play and copy WMDRM-protected content. If the software fails to protect the content, content owners may ask Microsoft to revoke the software's ability to use WMDRM to play or copy protected

content. Revocation does not affect other content. When you download licenses for protected content, you agree that Microsoft may include a revocation list with the licenses. Content owners may require you to upgrade WMDRM to access their content. Microsoft software that includes WMDRM will ask for your consent prior to the upgrade. If you decline an upgrade, you will not be able to access content that requires the upgrade. You may switch off WMDRM features that access the Internet. When these features are off, you can still play content for which you have a valid license.

- Windows Media Player. When you use Windows Media Player, it checks with Microsoft for
 - compatible online music services in your region; and
 - new versions of the player.

For more information, go to go.microsoft.com/fwlink/?linkid=104605.

- Malicious Software Removal. During setup, if you select "Get important updates for installation", the software may check for and remove certain malware from your computer. "Malware" is malicious software. If the software runs, it will remove the Malware listed and updated at www.support.microsoft.com/?kbid=890830. During a Malware check, a report will be sent to Microsoft with specific information about Malware detected, errors, and other information about your computer. This information is used to improve the software and other Microsoft products and services. No information included in these reports will be used to identify or contact you. You may disable the software's reporting functionality by following the instructions found at www.support.microsoft.com/?kbid=890830. For more information read the Windows Malicious Software Removal Tool privacy statement at go.microsoft.com/fwlink/?LinkId=113995.

- Network Awareness. This feature determines whether a system is connected to a network by either passive monitoring of network traffic or active DNS or HTTP queries. The query only transfers standard TCP/IP or DNS information for routing purposes. You can switch off the active query feature through a registry setting.
- Windows Time Service. This service synchronizes with time.windows.com once a week to provide your computer with the correct time. You can turn this feature off or choose your preferred time source within the Date and Time Control Panel applet. The connection uses the standard NTP protocol.
- IPv6 Network Address Translation (NAT) Traversal service (Teredo). This feature helps existing home Internet gateway devices transition to IPv6. IPv6 is the next generation Internet protocol. It helps enable end-to-end connectivity often needed by peer-to-peer applications. To do so, each time you start up the software the Teredo client service will attempt to locate a public Teredo Internet service. It does so by sending a query over the Internet. This query only transfers standard Domain Name Service information to determine if your computer is connected to the Internet and can locate a public Teredo service. If you
 - use an application that needs IPv6 connectivity, or
 - configure your firewall to always enable IPv6 connectivity,
 Then, by default standard Internet Protocol information will be sent to the Teredo service at Microsoft at regular intervals. No other information is sent to Microsoft. You can change this default to use non-Microsoft servers. You can also switch off this feature using a command line utility named "netsh".
- Accelerators. When you click on or move your mouse over an Accelerator, in Internet Explorer, any of the following may be sent to the service provider:
 - the title and full web address or URL of the current webpage,
 - standard computer information, and
 - any content you have selected.

If you use an Accelerator provided by Microsoft, use of the information sent is subject to the Microsoft Online Privacy Statement. This statement is available at go.microsoft.com/fwlink/?linkid=31493. If you use an Accelerator provided by a third party, use of the information sent will be subject to the third party's privacy practices.

- Search Suggestions Service. In Internet Explorer, when you type a search query in the Instant Search box or type a question mark (?) before your search term in the Address bar, you will see search suggestions as you type (if supported by your search provider). Everything you type in the Instant Search box or in the Address bar when preceded by a question mark (?) is sent to your search provider as you type. Also, when you press Enter or click the Search button, the text in the Instant Search box or Address bar is sent to the search provider. If you use a Microsoft search provider, use of the information sent is subject to the Microsoft Online Privacy Statement. This statement is available at go.microsoft.com/fwlink/?linkid=31493. If you use a third-party search provider, use of the information sent will be subject to the third party's privacy practices. You can turn search suggestions off at any time. To do so, use Manage Add-ons under the Tools button in Internet Explorer. For more information about the search suggestions service, see go.microsoft.com/fwlink/?linkid=128106.
- Consent to Update Infrared Emitter/Receiver. The software may contain technology to ensure the proper functioning of the infrared emitter/receiver device shipped with certain Media Center-based products. You agree that the software may update the firmware of this computer.



· Media Center Online Promotions. If you use Media Center features of the software to access Internet-based content or other Internet-based services, such services may obtain the following information from the software to enable you to receive, accept and use certain promotional offers:

- certain computer information, such as your Internet protocol address, the type of operating system and browser you are using, and the name and version of the software you are using,
- the requested content, and
- the language code of the computer where you installed the software.

Your use of the Media Center features to connect to those services serves as your consent to the collection and use of such information.

b. Use of Information. Microsoft may use the computer information, accelerator information, search suggestions information, error reports, and Malware reports to improve our software and services. We may also share it with others, such as hardware and software vendors. They may use the information to improve how their products run with Microsoft software.

c. Misuse of Internet-based Services. You may not use these services in any way that could harm them or impair anyone else's use of them. You may not use the services to try to gain unauthorized access to any service, data, account or network by any means.

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- reverse engineer, decompile or disassemble the software, except and only to the extent that applicable law expressly permits, despite this limitation;
- use components of the software to run applications not running on the software;
- make more copies of the software than specified in this agreement or allowed by applicable law, despite this limitation;
- publish the software for others to copy;
- rent, lease or lend the software; or
- use the software for commercial software hosting services.

9. MICROSOFT .NET BENCHMARK TESTING. The software includes one or more components of the .NET Framework (".NET Components"). You may conduct internal benchmark testing of those components. You may disclose the results of any benchmark test of those components, provided that you comply with the conditions set forth at go.microsoft.com/fwlink/?LinkID=66406. Notwithstanding any other agreement you may have with Microsoft, if you disclose such benchmark test results, Microsoft shall have the right to disclose the results of benchmark tests it conducts of your products that compete with the applicable .NET Component, provided it complies with the same conditions set forth at go.microsoft.com/fwlink/?LinkID=66406.

10. BACKUP COPY. You may make one backup copy of the software. You may use it only to reinstall the software on the licensed computer.

11. DOCUMENTATION. Any person that has valid access to your computer or internal network may copy and use the documentation for your internal, reference purposes.

12. NOT FOR RESALE SOFTWARE. You may not sell software marked as "NFR" or "Not for Resale."

13. GEOGRAPHIC RESTRICTIONS. If the software is marked as requiring activation in a specific geographic region, then you are only permitted to activate this software in the geographic region indicated on the software or computer packaging. You may not be able to activate the software outside of that region. For further information on geographic restrictions, visit go.microsoft.com/fwlink/?LinkId=141397.

14. UPGRADES. To use upgrade software, you must first be licensed for the software that is eligible for the upgrade. Upon upgrade, this agreement takes the place of the agreement for the software you upgraded from. After you upgrade, you may no longer use the software you upgraded from.

15. DOWNGRADE. Instead of using the software, you may use one of the following earlier versions:

- Windows Vista Ultimate,
- Microsoft Windows XP Professional,
- Microsoft Windows Professional x64 Edition, or
- Microsoft Windows XP Tablet PC Edition.

This agreement applies to your use of the earlier versions. If the earlier version includes different components, any terms for those components in the agreement that comes with the earlier version apply to your use of them. Neither the manufacturer or installer, nor Microsoft is obligated to supply earlier versions to you. You must obtain the earlier version separately. At any time, you may replace an earlier version with this version of the software.

16. PROOF OF LICENSE.

a. Genuine Proof of License. If you acquired the software on a computer, or on a disc or other media, a genuine Microsoft Certificate of Authenticity label with a genuine copy of the software identifies licensed software. To be valid, this label must be affixed to the computer or appear on the manufacturer's or installer's packaging. If you receive the label separately, it is invalid. You should keep label on the computer or the packaging that has the label on it to prove that you are licensed to use the software. If the computer comes with more than one genuine Certificate of Authenticity label, you may use each version of the software identified on those labels.

b. To identify genuine Microsoft software, see www.howtotell.com.

17. TRANSFER TO A THIRD PARTY. You may transfer the software directly to a third party only with the licensed computer. The transfer must include the software and the Certificate of Authenticity label. You may not keep any copies of the software or any earlier version. Before any permitted transfer, the other party must agree that this agreement applies to the transfer and use of the software.

18. NOTICE ABOUT THE H.264/AVC VISUAL STANDARD, THE VC-1 VIDEO STANDARD, THE MPEG-4 VISUAL STANDARD AND THE MPEG-2 VIDEO STANDARD. This software includes H.264/AVC, VC-1, MPEG-4 Part 2, and MPEG-2 visual compression technology. MPEG LA, L.L.C. requires this notice: THIS PRODUCT IS LICENSED UNDER THE AVC, THE VC-1, THE MPEG-4 PART 2 VISUAL, AND THE MPEG-2 VIDEO PATENT PORTFOLIO LICENSES FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE ABOVE STANDARDS (“VIDEO STANDARDS”) AND/OR (ii) DECODE AVC, VC-1, MPEG-4 PART 2 AND MPEG-2 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE SUCH VIDEO. NONE OF THE LICENSES EXTEND TO ANY OTHER PRODUCT REGARDLESS OF WHETHER SUCH PRODUCT IS INCLUDED WITH THIS PRODUCT IN A SINGLE ARTICLE. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE WWW.MPEGLA.COM.

19. THIRD PARTY PROGRAMS. The software contains third party programs. The license terms with those programs apply to your use of them.

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