Optimization of the computer and the system
for using WinPC-NC Light and WinPC-Economy

Following operating manual provides instructions concerning the optimization of an existing Windows XP system in order to get a faultless run of the realtime modules of **WinPC-NC Light** and **Economy** without any interferences by other processes.

The displayed screenshots are adopted from a computer as sample and may differ slightly from your systems. Using Windows 2000 instead of Windows XP, additional deviations may occur. However, the basic instructions apply to all systems and are similiar to each other. It is advisable to contact an expert if you are inexperienced in this subject or uncertain in operation.

Probably it will not be necessary to carry out all described steps. Please effect those actions promising the best results. Furthermore, multiple tests are recommended in order to try out the running course of motors and realtime control.
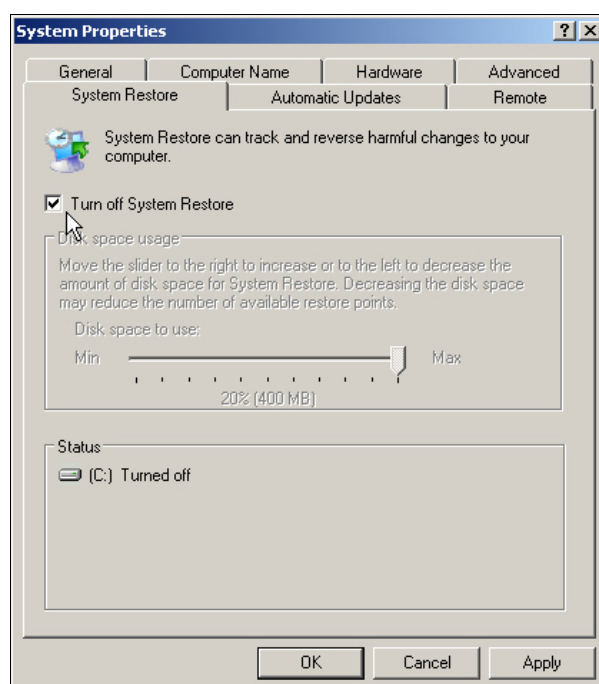
1. Deactivating Firewall, virus scanner and automatic updates

Open the *Control panel* under *Start-settings* and select *Security Center.* Now deactivate the internal Firewall, the automatic updates and the virus scanner. This action is confirmed by closing the safety center.
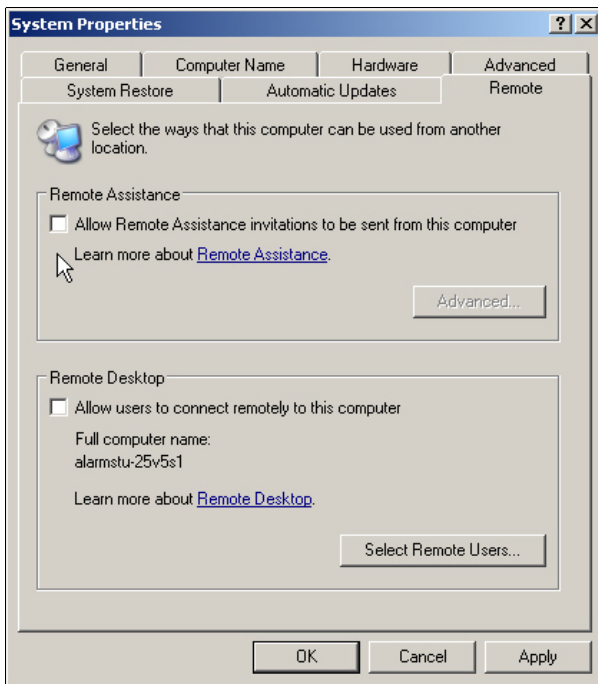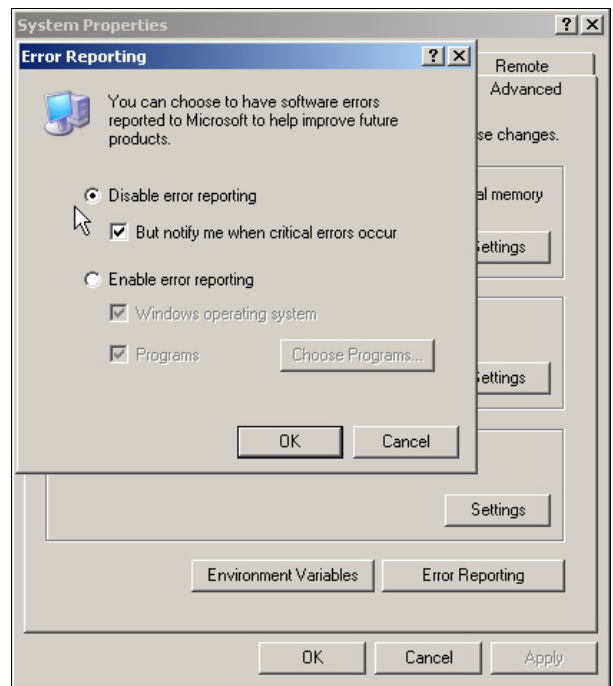
2. Deactivating additional background programs

Open the window *System Properties* by clicking the right mouse button to *My Computer* and *Properties*. Select now the category *System Restore*. Activate the setting *Turn off System Restore* by clicking the checkbox.
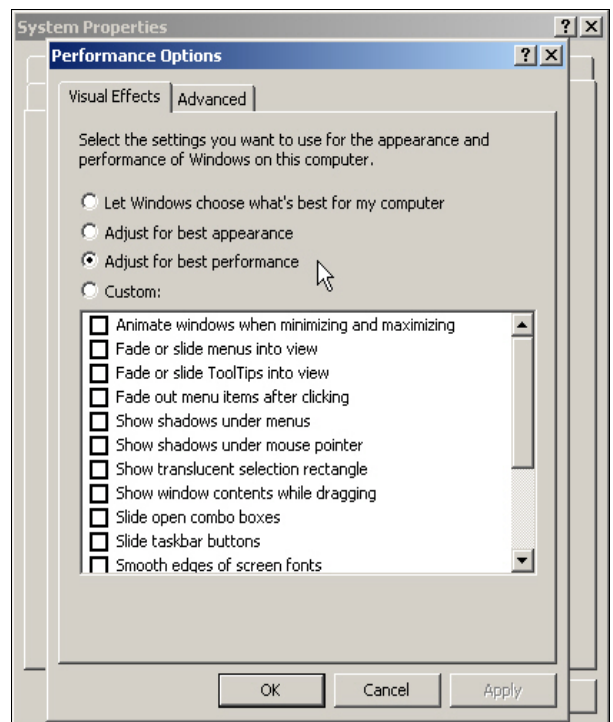
Continue the procedure by selecting the window *Advanced* and *Error Reporting*. Now deactivate *Error Reporting* for system and programs.
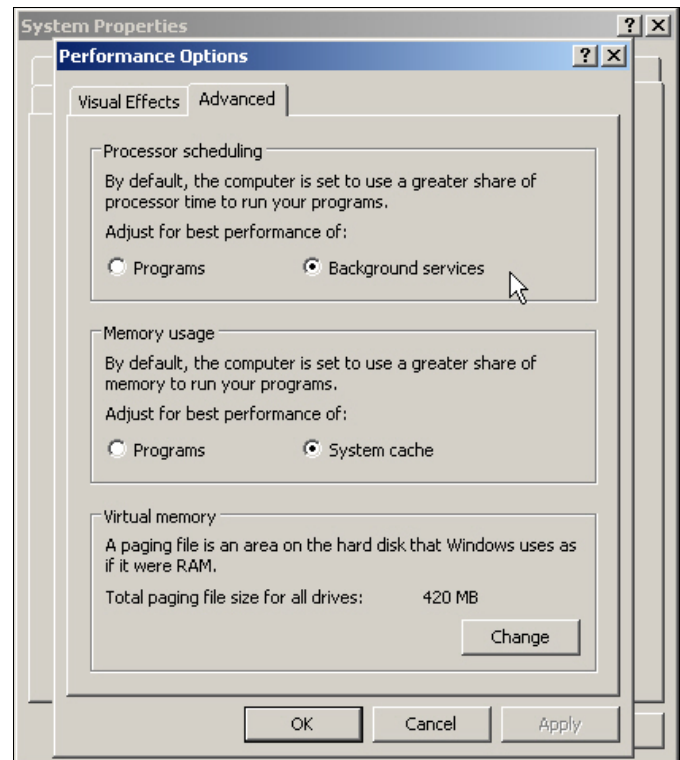
Select the window *Remote* and deactivate all functions by removing the hooks from the checkboxes.

Select *Advanced* followed by *Performance Options*. Activate *Best performance* in the category *Visual Effects*.
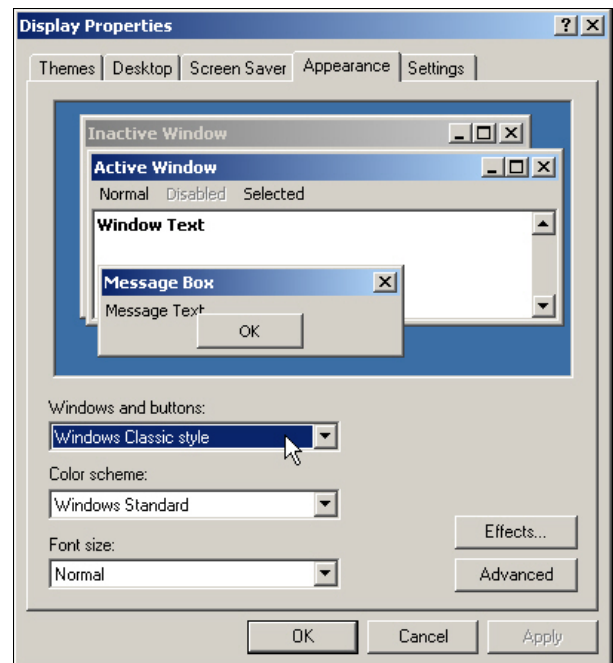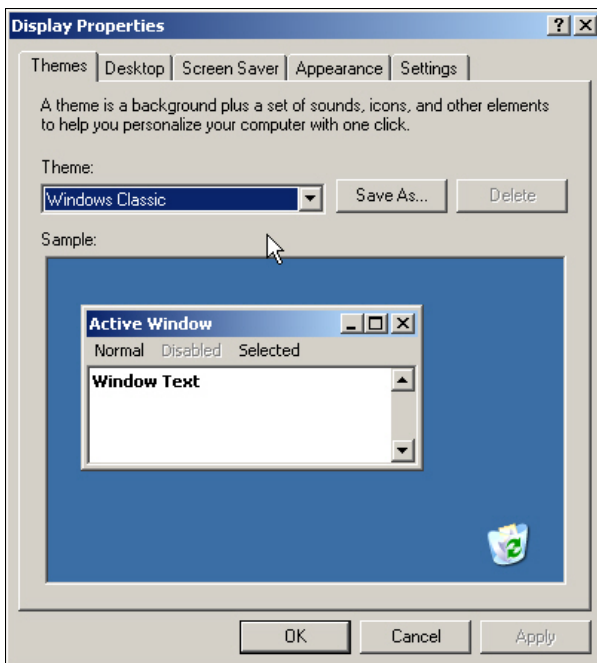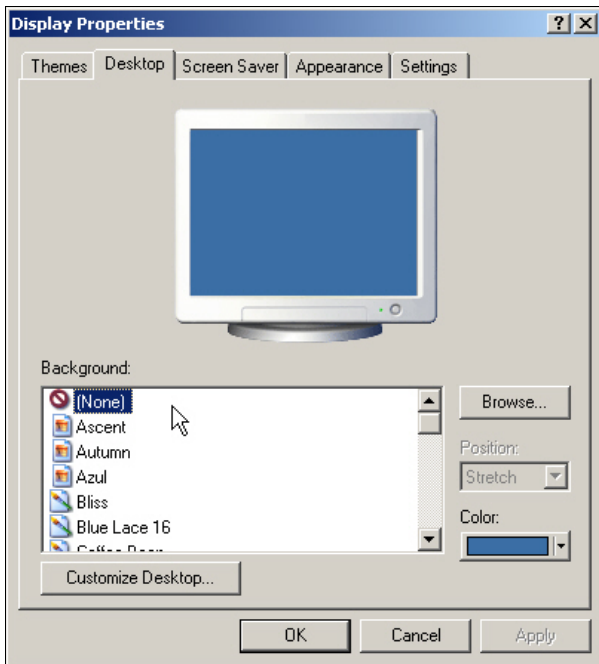
Select *Advanced* under *Performance Options* in the same window. Activate *Background services* and *System cache*.
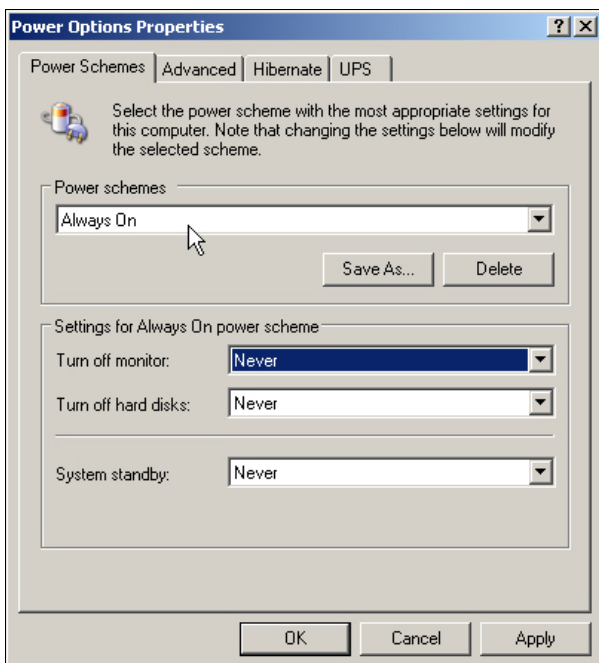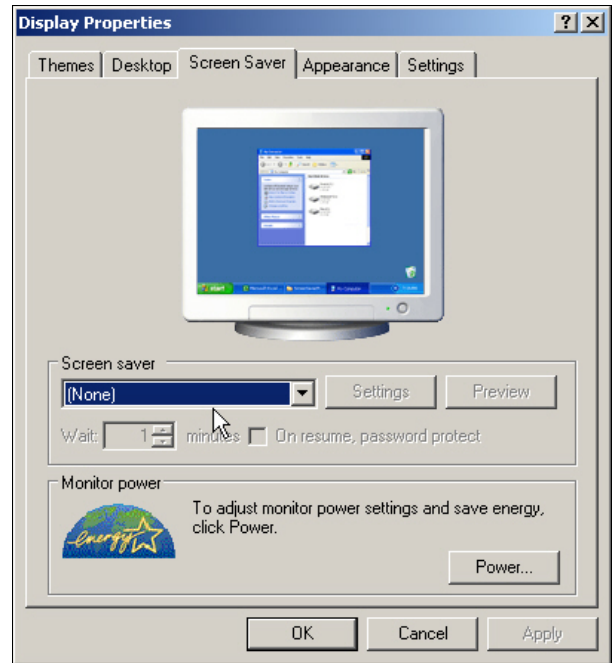

3. Changing display options

Activate display options by clicking the right mouse button on to the desktop background and select the option *Windows Classic* under *Themes* and *Appearance*.
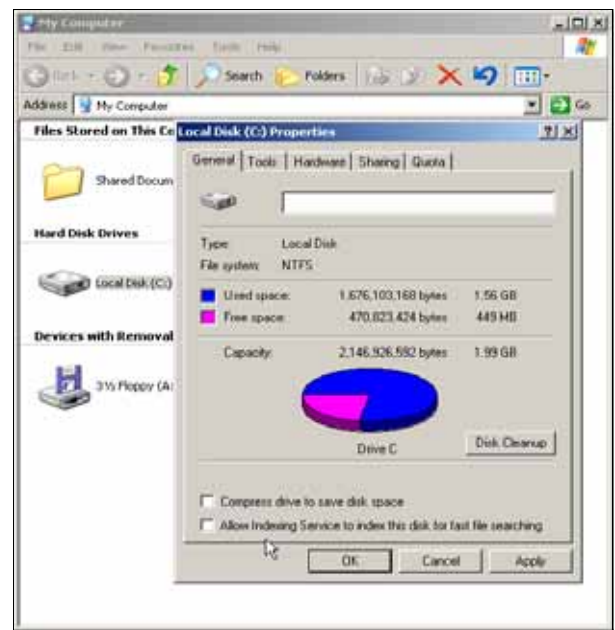
Select the category *Desktop* and switch off the background pictures. Please deactivate all functions of the screen saver in the dialog box *Screen Saver* as well as all functions und times in the box *Power Options*. It is recommended to select *Always On* and the parameter *Never* with all shutdown times and functions.
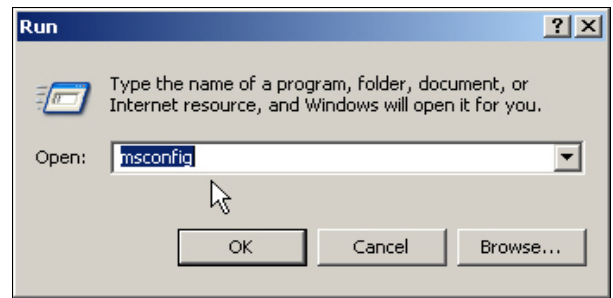
4. Deactivating the drive index

Select successively your harddisk drives under *My Computer* by a right mouse click and open the dialog box *Properties*. Deactivate the function *Allow indexing service*.
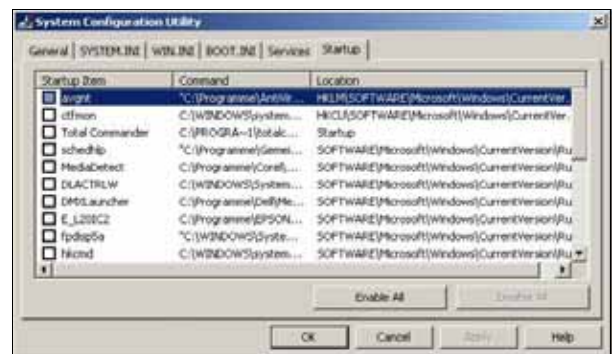
5. Removing programs and services which are not required when starting the system

Select the command line under *Start-run*...and insert *msconfig* in order to start a system program. Select *Services* and check the register for useless or not required services. It is recommended to deactivate most of these programs.

The same procedure has to be effected under the category *Startup* with the automatic loading programs. For testing purposes you can deactivate programs which are not required or whose necessity or function is unknown.

Save your settings by the parameter *Apply* and *ok* and restart your computer.
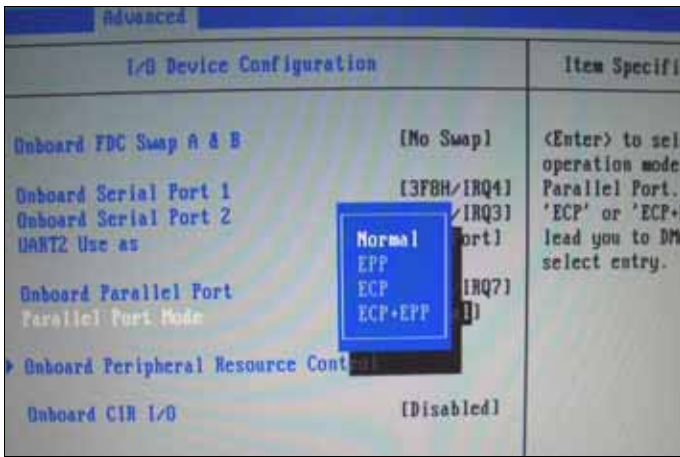
6. Optimizing adjustments in the BIOS of the computer

A lot of settings affecting usual operation are already integrated in the BIOS of the computer. However, they may interfere realtime operation. In order to be able to modify these settings, you have to shut down or restart the computer. At the beginning of the BOOT operation you have to press a specific key. Normally this key is displayed and it is either key (F2) or key (F8).

You should proceed with the greatest possible care when modiyfing these settings. In order to avoid problems, it is recommended to contact an expert. The used pages and displays depend on the manufacturer of the computer or of the BIOS and are not similiar with all computers. Following tips are examples and given for possible optimizations.

Using modern computers with HT (HyperThreading) architecture it is advisable to deactivate the HT functions.
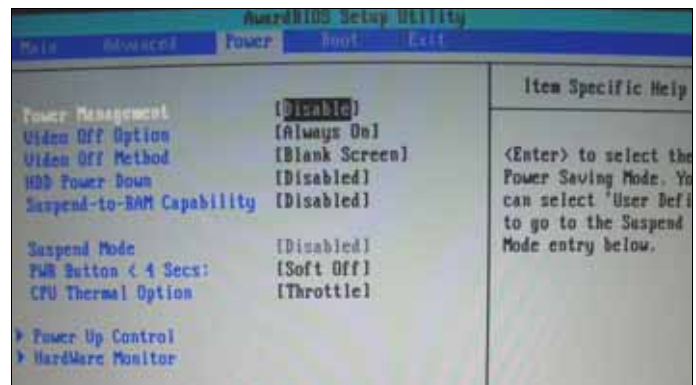
Normal, *SPP* or *compatible mode* should be selected for the mode settings of the parallel printer port LPT. The corresponding term may vary from BIOS to BIOS. In any case you should avoid the setting of one of the actual bi-directional modes.

All options for the *Power management* settings should be deactivated, this means deactivation of any mechanisms for power savings .

Additional computer components as modem, sound, networks, USB ports, etc. should mereley be activated if required. Everything else can be deactived.

This manual has been thoroughly compiled and all indications should be considered as a kind of proposal. Tests concerning computer optimization should be cautiously carried out. Any feedback from users concerning this subject is appreciated.

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