# QUICK MANUAL

Kontron WINCE 6.00 image
for M@C IIA und MediClient A (B649)

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## Revision History

| ChangeLog | | | |
|---|---|---|---|
| **Rev** | **Description** | **Date** | **Author** |
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# 1 Preface

**The document described the Feature, Adjustment to develop a WINCE 6.00 Image for the Microclient\Nanoclient (B649)**

# 2 Features

- **On-Board Hardware Support**
  - COM Ports
  - USB port
  - Ethernet connection
  - Flat panel interface
- **Storage Devices**
  - **Compactflash**
- **User Interface**
  - USB Mouse + USB Keyboard
  - Touch
- **Communication Services and Networking**
  - Wired LAN 802.3
  - Dial-up networking
  - Telnet server
  - FTP server
  - Web server
  - Active Sync
  - SNTP client
- **Application**
  - **Internet Explorer 6.0**
  - **Wordpad**
  - **Startup Applikationen**
  - **Compact Framework Modul (V3.5)**
  - **Remote Desktop (incl Autologon support)**
  - **Softkeyboard**
- **Data store**
  - **Hive-based registry (Persistent) -> Regsav.exe**
- **Languages**
  - English, german

## 2.1 Hardware

### 2.1.1 Microclient - adjustment COM1 to COM2

| Serial Interface | Address | IRQ | Device |
|---|---|---|---|
| COM1 | 0x3F8 | 4 | |
| COM2 | 0x2F8 | 3 | Active Sync |

## 2.2 Image Size

Release: ca 36 MB -> Platform Builder

## 2.3 Multilingual User Interface ( optional)

Description of implement the Multilingual User Interface with Languages German and English

### 2.3.1 Language Change

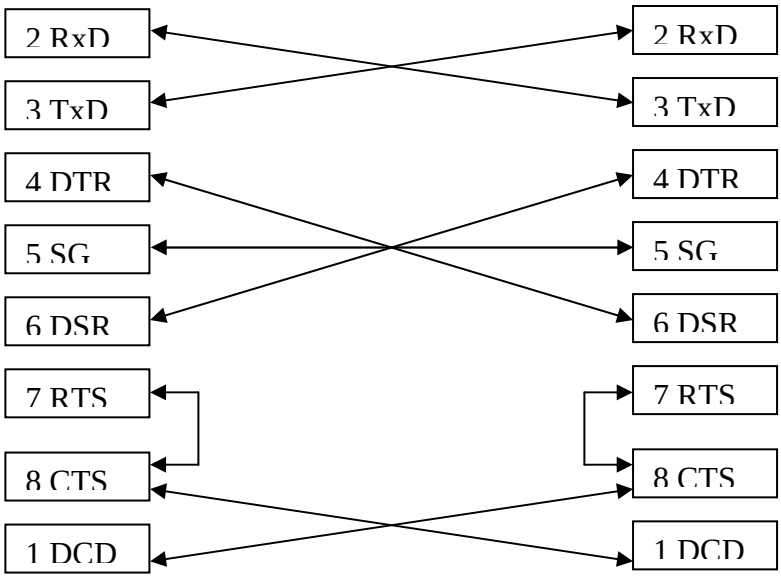
1) Boot System
**2)** Click **Start** -> **Settings** -> **Control panel**
3) double click **Regional Settings**
4) Change “User Interface Language” to German or English
5) Press OK
6) On Desktop launch “ **Regsave**” in order to save the settings
7) Reboot System in order to activate new languages

# 3 ActiveSync Connection

## 3.1 Active Sync Serial

- Connect target and development PC with null modem cable
- WinCE – Target -> launch Repllog.exe .
- Development PC -> launch Active Sync

### 3.1.1 Null modem Pin Connetion



## 3.2 Active Sync Over LAN

### 3.2.1 Target

For Active Sync over LAN ( LAN only) the files

- **tcpipc.dll**
- **cemgrc.exe**
- **cetlstub.dll**

**must be copy in the \windows folder of the target (see manucopy.bat) during runtime**

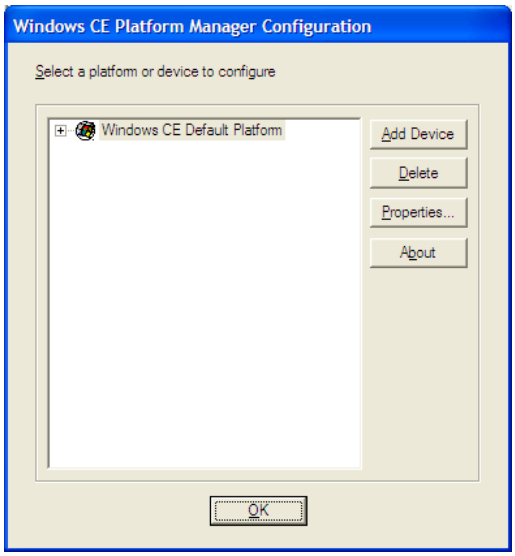
Open the Command shell and type
**CEMGRC.EXE /S /T:TCPIPC.DLL /Q /D:"TCPIP Adresse from Host":5000 or**
**Launch the Manustart.bat**

( see Manustart.BAT)

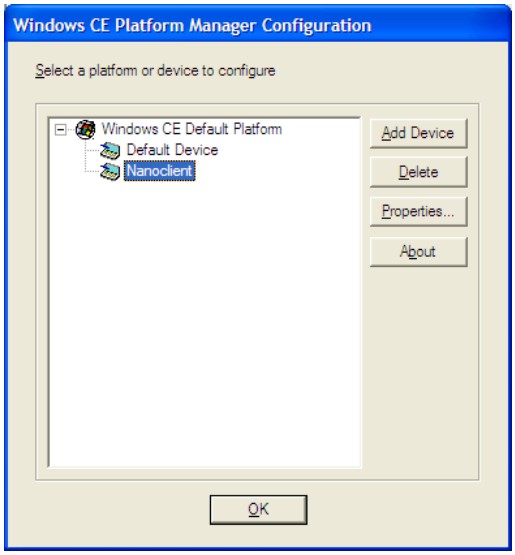
### 3.2.2 Host

Example: CERegedit - CE Remote Registry

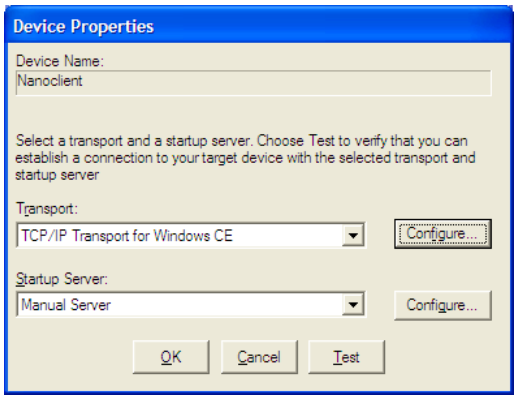
1) Launch ceregedt.exe on HOST PC
2) "Connection" -> "Configure Windows CE Platform Manager" if not happened

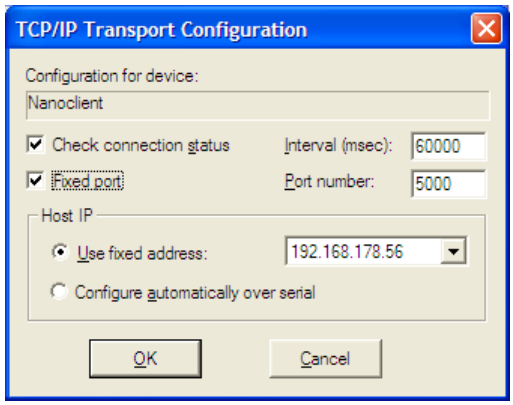


3) Press “Add Device” if no device included




4) Press “Properties” to configure the device

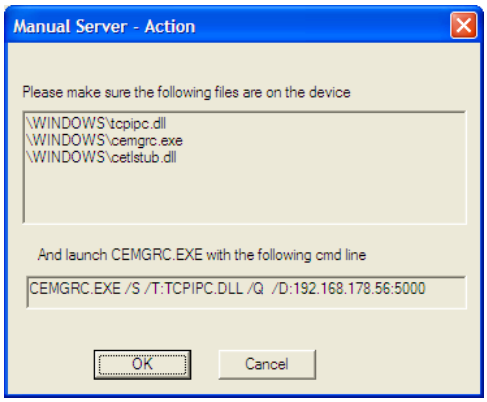



5) Press “OK” buttons in order to save the configuration

6) Press “Connection” -> “Add Connection” -> choice the Device to connect ( eg: Nanoclient) and press “OK”

7) A windows with the files needed on the target and launched cemgrc.exe with the following cmd line ( note : you can using the batchfiles: manucopy.bat and manustart.bat)







8) After launching the manustart.bat on the target you are getting an Active Sync connection over LAN

### 3.2.2.1 Manucopy.BAT

```
copy "\Storage Card\appce6\platman\x86_CE6\tcpipc.dll"   \windows
copy "\Storage Card\appce6\platman\x86_CE6\cemgrc.exe"   \windows
copy "\Storage Card\appce6\platman\x86_CE6\cetlstub.dll"   \windows
```

### 3.2.2.2 Manustart.BAT

**Example:**

```
rem CEMGRC.EXE /S /T:TCPIPC.DLL /Q  /D:10.224.2.98:5000"
CEMGRC.EXE /S /T:TCPIPC.DLL /Q  /D:192.168.178.54:5000"
```

# 4 Make a Network connections

Settings were saved persistent on CF by launch the regsave.exe (Hived based registry)

DK – double Click

### 4.1.1 Set static IP Address

1) Start -> Settings -> Network and Dial-up Connections
2) DK on PCI – RT81391
3) click " Specify an IP address "
4) set IP- Address
   a. for example IP-address: 192.168.0.6, Subnet Mask : 255.255.255.0
5) click OK

### 4.1.2 map a folder on the connected PC

1) Start -> RUN click
2) Set CMD
3) net view <Computername>
4) set user name and password !!!
5) net use * **Fehler! Hyperlink-Referenz ungültig.**

### 4.1.3 Place of the shared resource

1) Start -> Programs -> Windows Explorer
2) Click Network
3) -> shared folder

# 5 Configuration for download the CE-Image

## 5.1 BIOS Settings B649 Board (B649A004)

Note:

- The most important Settings are marked blue !!!!
- Settings after copy the CE-Images
- Press „DEL„ Key as long as booting the BIOS-setup starts

### 1 Main Menu Overview

| | | |
|---|---|---|
| **Main** | | |
| **Advanced** | | |
| | ▶CPU Configuration | |
| | ▶IDE Configuration | |
| | | ▶Primary IDE Master |
| | | ▶Primary IDE Slave |
| | | ▶Secondary IDE Master |
| | | ▶Secondary IDE Slave |
| | ▶SuperIO Configuration | |
| | ▶Hardware Health Configuration | |
| | ▶ACPI Configuration | |
| | | ▶General ACPI Configuration |
| | | ▶Advanced ACPI Configuration |
| | | ▶Chipset ACPI Configuration |
| | ▶Video Function Configuration | |
| | ▶B649 FEATURE | |
| | | ▶ Watchdog |
| | | ▶ SuperVision |
| | ▶MPS Configuration | |
| | ▶PCI Express Configuration | |

| | | |
|---|---|---|
| | ▶SMBIOS Configuration | |
| | ▶USB Configuration | |
| | | ▶USB Mass Storage Device Configuration *) |
| **PCIPnP** | | |
| **Boot** | | |
| | ▶Boot Settings Configuration | |
| **Security** | | |
| **Chipset** | | |
| | ▶North Bridge Configuration | |
| | ▶South Bridge Configuration | |
| **Exit** | | |
| | ▶Save Changes and Exit | |
| | ▶Discard Changes and Exit | |
| | ▶Discard Changes | |
| | ▶Load Optimal Defaults | |
| | ▶Load Failsafe Defaults | |

*) It’s dependent from the attached devices

# 2 Advanced

## 2.1 CPU Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Max CPUID Value Limit | Disabled | | Disabled, Enabled |
| Execute-Disable Bit Capability | Enabled | | Disabled, Enabled |
| Hyper Threading Technology | Enabled | | Disabled, Enabled |
| DTS-based Thermal Management | Enabled | | Disabled, Enabled |
| DTS Calibration | Enabled | | Disabled, Enabled |
| Intel ® SpeedStep™ tech. | Enabled | | Disabled, Enabled |
| Intel ® C-State tech | Enabled | | Disabled, Enabled |
| Enhanced C-States | Enabled | | Disabled, Enabled |

## 2.2 IDE Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| ATA/IDE Configuration | Compatible | | Disabled, Compatible, Enhanced |
| Legacy IDE Channels | SATA Pri, PATA Sec | | SATA Only; Reserved; SATA Pri, PATA Sec; PATA Only |
| Configure SATA as *) | IDE | | IDE; RAID; AHCI |
| Configure SATA Channels *) | Before PATA | | Before PATA; Behind PATA |
| Configure SATA as **) | Disabled | | Disabled, RAID |
| | | | |
| ▶Primary IDE Master | | | |
| ▶Primary IDE Slave | | | |
| ▶Secondary IDE Master | | | |
| ▶Secondary IDE Slave | | | |
| ▶Third IDE Master *) | | | |
| ▶Third IDE Slave *) | | | |
| | | | |
| Hard Disc Write Protect | Disabled | | Enabled; Disabled |
| IDE Detect Time Out (sec.) | 5 | | 0; 5; 10; 15; 20; 25; 30; 35 |

*) only shown by ATA/IDE Configuration = Enhanced
**) only shown by Legacy IDE Channels = PATA Only

### 2.2.1 Primary IDE Master/Slave

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Type | *Auto* | | Not installed<br>Auto<br>CDROM<br>ARMD |
| LBA/Large Mode | *Auto* | | Disabled, Auto |
| Block (Multi-Sector Transfer) | *Auto* | | Disabled, Auto |
| PIO Mode | *Auto* | | Auto, 0,1,2,3,4, |
| DMA Mode | *Auto* | | Auto |
| S.M.A.R.T | *Auto* | | Auto, Disabled, Enabled |
| | | | |
| 32Bit Data Transfer | *Disabled* | | Enabled; Disabled |

### 2.2.2 Secondary IDE Master/Slave

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Type | *Auto* | | Not installed<br>Auto<br>CDROM<br>ARMD |
| LBA/Large Mode | *Auto* | | Disabled, Auto |
| Block (Multi-Sector Transfer) | *Auto* | | Disabled, Auto |
| PIO Mode | *Auto* | | Auto, 0,1,2,3,4, |
| DMA Mode | *Auto* | | Auto |
| S.M.A.R.T | *Auto* | | Auto, Disabled, Enabled |
| | | | |
| 32Bit Data Transfer | *Disabled* | | Enabled; Disabled |

### 2.2.3 Third IDE Master/Slave

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Type | *Auto* | | Not installed<br>Auto<br>CDROM<br>ARMD |
| LBA/Large Mode | *Auto* | | Disabled, Auto |
| Block (Multi-Sector Transfer) | *Auto* | | Disabled, Auto |
| PIO Mode | *Auto* | | Auto, 0,1,2,3,4, |
| DMA Mode | *Auto* | | Auto |
| S.M.A.R.T | *Auto* | | Auto, Disabled, Enabled |
| | | | |
| 32Bit Data Transfer | *Disabled* | | Enabled; Disabled |

## 2.3 SuperIO Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Serial Port1 Address | 3F8/IRQ4 | | Disaled, 3F8/IRQ4, 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3 |
| Serial Port1 Address | 2F8/IRQ3 | | Disaled, 3F8/IRQ4, 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3 |
| Serial Port2 Mode | Normal | | Normal, IrDa, ASK IR |

## 2.4 Hardware Health Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| WB Temperature 1 | XXXX | | |
| CPU Temperature | XXXX | | |
| WB Temperature 2 | XXXX | | |
| | | | |
| Vcore | XXXX | | |
| AVCC | Xxxx | | |
| 3VCC | XXXX | | |
| + 12V | XXXX | | |
| + 5V | XXXX | | |
| + 1,5V | XXXX | | |
| + 1,05V | XXXX | | |
| + 1,8V | XXXX | | |
| + 3,3 VSB | XXXX | | |
| VBAT | XXXX | | |

## 2.5 ACPI Configuration

### 2.5.1 General ACPI Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Suspend mode | Auto | | S1 (POS); S3 (STR); Auto |
| Repost Video on S3 Resume | *No* | | No; Yes |

### 2.5.2 Advanced ACPI Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| ACPI Version Features | ACPI v1.0 | | ACPI v1.0; ACPI v2.0; ACPI v3.0; |
| ACPI APIC support | Enabled | | Disabled, Enabled |
| AMI OEMB table | Enabled | | Disabled, Enabled |
| Headless mode | Disabled | | Disabled, Enabled |

### 2.5.3 Chipset ACPI Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| APIC ACPI SCI IRQ | Disabled | | Enabled, Disabled |
| High Performance Event Timer | Disabled | | Enabled, Disabled |

## 2.6 Video Function Configuration

| Control Group Structure Name | **BIOS Defaults** | **Customer Setting** | **Possible Setting** |
|---|---|---|---|
| DVMT Mode Select | DVMT Mode | | Fixed Mode; DVMT Mode; Combo Mode |
| DVMT/FIXED Memory | 128MB | | 64MB; 128MB; Maximum DVMT |
| | | | |
| Boot Display Device | CRT + LVDS | | Auto; CRT; LVDS; CRT + LVDS; |
| Flat Panel Type | SVGA 800x600 1x18 *) | | VGA 640x480 1x18;<br>SVGA 800x600 1x18;<br>XGA 1024x768 1x18;<br>SXGA 1280x1024 2x18;<br>WVGA 800x480 1x18 |
| Local Flat Panel Scaling | Stretched | | Centered; Stretched; Disabled |
| | | | |
| Backlight Control Type | PWM | | None/External, I2C, PWM |
| Backlight Brightness | 128 | | 0 – 255 |
| | | | |

*) dependant from the attached panel type

## 2.7 B649 Feature

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| ► Watchdog | | | |
| ► SuperVision | | | |

### 2.7.1 Watchdog

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Watchdog State | Disabled | | Enabled, Disabled |
| WD Active Time [sec] | 1023 | | 1 – 1023 |

### 2.7.2 SuperVision

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| | | | |
| SVC\PIC Program Version | XXXX | | |
| SVC\PIC Feature ID | XXXX | | |
| | | | |
| Power On Counter | XXXX | | |
| Operating Time Counter [hour] | XXXX | | |
| | | | |
| PowerUp Heater control | Disabled | | Disabled; Enabled |
| Board Temperature | XXXX | | |
| | | | |
| I2C External (J28) | Disabled | | Disabled; Enabled |
| USB01 External VCC (J5) | Enabled | | Disabled; Enabled |
| USB23 Internal1 VCC (J29) | Enabled | | Disabled; Enabled |
| USB67 Internal2 VCC (J17) | Enabled | | Disabled; Enabled |
| | | | |
| | | | |
| 1. Ethernet MAC Addr. | | | |
| 2. Ethernet MAC Addr. | | | |

## 2.8 MPS Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| MPS Revision | 1.1 | | 1.1; 1.4 |

## 2.9 PCI Express Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| PCIE Port 0 | Auto | | Auto; Enabled; Disabled |
| PCIE Port 1 | Auto | | Auto; Enabled; Disabled |
| PCIE Port 2 | Auto | | Auto; Enabled; Disabled |
| PCIE Port 3 | Auto | | Auto; Enabled; Disabled |
| PCIE Port 4 | Auto | | Auto; Enabled; Disabled |
| PCIE Port 5 | Auto | | Auto; Enabled; Disabled |
| PCIE High Priority Port | Disabled | | Disabled; Port 0; Port 1; Port 2; Port 3; Port 4; Port 5 |
| | | | |
| PCIE Port 0 IOxAPIC Enable | Disabled | | Disabled; Enabled |
| PCIE Port 1 IOxAPIC Enable | Disabled | | Disabled; Enabled |
| PCIE Port 2 IOxAPIC Enable | Disabled | | Disabled; Enabled |
| PCIE Port 3 IOxAPIC Enable | Disabled | | Disabled; Enabled |
| PCIE Port 4 IOxAPIC Enable | Disabled | | Disabled; Enabled |
| PCIE Port 5 IOxAPIC Enable | Disabled | | Disabled; Enabled |

## 2.10 SMBIOS Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Smbios Smi Support | Enabled | | Disabled; Enabled |

## 2.11 USB Configuration

Module Version: 2.24.3-13.4

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| USB Functions | 8 USB Ports | | Disabled,<br>2 USB Ports, 4 USB Ports,<br>6 USB Ports, 8 USB Ports, |
| USB 2.0 Controller | Enabled | | Enabled, Disabled |
| | | | |
| Legacy USB Support | Enabled | | Disabled;<br>Enabled;<br>Auto |
| USB Keyboard Legacy Support | Enabled | | Disabled; Enabled |
| USB Mouse Legacy Support | Enabled | | Disabled; Enabled |
| USB Storage Device Support | Enabled | | Disabled; Enabled |
| Port 64/60 Emulation | Disabled | | Disabled; Enabled |
| USB 2.0 Controller Mode | HiSpeed | | FullSpeed, HiSpeed |
| BIOS EHCI Hand-Off | Enabled | | Disabled; Enabled |

### 2.11.1 USB Mass Storage Device Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| USB Mass Storage Reset Delay | *20sec* | | 10sec, 20sec, 30sec, 40sec |
| Device#1 | | | |
| Device#2 | | | |
| Device#n | | | |
| Emulation Type | *Auto* | | Auto, Floppy, Forced FDD ;<br>Hard-Disk ; CDROM |

## 3 PCIPNP

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Clear NVRAM | *No* | | Yes, No |
| Plug & Play O/S | *No* | | Yes, No |
| PCI Latency Timer | *64* | | 32; 64; 96; 128; 160; 192; 224; 248 |
| Allocate IRQ to PCI VGA | Yes | | Yes; No |
| Palette Snooping | *Disabled* | | Enabled; Disabled |
| PCI IDE BusMaster | Enabled | | Enabled; Disabled |
| OffBoard PCI/ISA IDE Card | *Auto* | | Auto; PCI Slot 1<br>PCI Slot 2; PCI Slot 3;<br>PCI Slot 4; PCI Slot 5;<br>PCI Slot 6 |
| IRQ3 | Available | | Available; Reserved |
| IRQ4 | Available | | Available; Reserved |
| IRQ5 | Available | | Available; Reserved |
| IRQ6 | Available | | Available; Reserved |
| IRQ7 | Available | | Available; Reserved |
| IRQ9 | Available | | Available; Reserved |
| IRQ10 | Reserved | | Available; Reserved |
| IRQ11 | Available | | Available; Reserved |
| IRQ14 | Available | | Available; Reserved |
| IRQ15 | Available | | Available; Reserved |
| | | | |
| Reserved Memory Size | Disabled | | Disabled; 16k; 32k; 64k |
| Reserved Memory Address | C8000 | | C0000; C4000; C8000; CC000<br>D0000; D4000; D8000; DC000 |

# 4 Boot

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| ▶Boot Settings Configuration | | | |
| | | | |
| | | | |
| | | | |
| 1st Boot Devices | | | 1st Floppy Drive; CD/DVD; Hard Drive; Disabled |
| 2nd Boot Devices | | | 1st Floppy Drive; CD/DVD; Hard Drive; Disabled |
| 3rd Boot Devices | | | 1st Floppy Drive; CD/DVD; Hard Drive; Disabled |
| 4th Boot Devices | | | 1st Floppy Drive; CD/DVD; Hard Drive; Disabled |
| 5th Boot Devices | | . | 1st Floppy Drive; CD/DVD; Hard Drive; Disabled |

Boot order: 402153 USB-> removable-> atapi cdrom-> Hard disk -> LAN ->BEV/other

## 4.1 Boot Settings Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Quick Boot | Enabled | | Disabled; Enabled |
| Quiet Boot | Disabled | | Disabled; Enabled |
| AddOn ROM Display Mode | Force BIOS | | Force BIOS; Keep current |
| Bootup Num-Lock | *On* | | On, Off |
| PS/2 Mouse Support | Auto | | Disabled; Enabled; Auto |
| Wait for “F1” if Error | Enabled | | Disabled; Enabled |
| Hit ‘DEL’ Message Display | Enabled | | Disabled; Enabled |
| Interrupt 19 Capture | Disabled | | Disabled; Enabled |
| | | | |
| Enable PXE ROM | Enable | | Enable; Disable |

# 5 Security

## 5.1 Security Settings

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| Supervisor Password | : Not installed | | |
| Change Supervisor Password | | | |
| Password Check | Setup | | Setup; Always |
| | | | |
| Boot Sector Virus Protection | Disabled | | Disabled; Enabled |
| | | | |

# 6 Chipset Configuration

## 6.1 North Bridge Configuration

| Control Group Structure Name | BIOS Defaults | Customer Setting | Possible Setting |
|---|---|---|---|
| DRAM Frequency | Auto | | Auto; 400 Mhz; 533Mhz |
| Configure DRAM Timing by SPD | Enabled | | Disabled; Enabled |
| Memory Hole | Disabled | | Disabled; 15MB–16MB |
| | | | |
| Integrated Graphics Mode Select | Enabled, 8MB | | Disabled;<br>Enabled, 1MB;<br>Enabled, 8MB; |

## 6.2 South Bridge Configuration

| Control Group Structure Name | **BIOS Defaults** | **Customer Setting** | **Possible Setting** |
|---|---|---|---|
| Audio Controller | Auto | | Auto; Azalia; AC'97 Audio and Modem; All Disabled |
| SMBUS Controller | Enabled | | Disabled; Enabled |
| | | | |
| SLP_S4# Min. Assertion Width | 1 to 2 seconds | | 4 to 5 seconds;<br>3 to 4 seconds;<br>2 to 3 seconds;<br>1 to 2 seconds; |
| Restore on AC Power Loss | Power On | | Power Off; Power On;<br>Last State |

# 6 Registry

There is a hived based registry for the persistent Registry in the WINCE Image. The Registry with the User Settings is saved on the Storage device!

## 6.1 Regsave.exe

Launch this File the Registry changes were saved on the Storage Device. Do you not launch regsave.exe after make settings the changes will be lost if you make a reboot.

## 6.2 Registry folder

The registry saved under following path

C:\Registry\System.hv
C:\Registry\User.mky
C:\Registry\User\User.hv

## 6.3 FAQ

**Problem: System boots not correct after a faulty registry !!!**

Approach:

Connect the CF in a Cardreader which is attached to a host PC and delete the “registry” folder. After boot the target with the CF the registry with the orginal settings were saved on the storage device !!!

Note: preceding settings were lost

# 7 Touch calibration

If the touchpoints don't the same as the mouse arrow you must calibrate the touch !

1) DK **„hcecal"**on the WINCE Desktop
2) Make Calibration
3) DK **„regsave"** on the WINCE Desktop in order to save the value on the storage device
4) DK X (right above) close the Regsave window

# 8 Autostart applications

Through a entry in the startup.bat you can autostart applications after booting

Path:
C:\Startup\startup.bat

## 8.1 Startup.bat

```
echo off
REM  Kontron embedded Computers      28.2.2006   HOs
REM
REM  Batchfile for Autostart files after booting
REM  which is not build in the image
REM
REM  strategy:
REM  1) Make a directory on the HDD
REM  2) Copy the files in the directory
REM  3) Make a entry in the startup.bat, to start the Application automatically
REM
REM  Example:  start \"Storage Card"\App\App1.exe
REM
REM ;;;
```

# 9 IE in KIOSmode (optional wince 5.0)

You can start the Panel in IE KIOSK mode ! After Booting the WINCE target the ie will be launched in KIOS mode !

## 9.1 Enable the KIOSKmode

1) Booting the wince image of the CE - target !
2) Launch regsave on the desktop
3) Press the “IE Kioskmode” button
4) The target is making a reboot and start the IE in kioskmode

## 9.2 Disable the KIOSKmode

- Booting the wince image of the CE – target!
- Move the mousecursor to the below border of the Panel -> Taskbar will be shown
- Press the “show Desktop” button ( right below)
- Launch regsave on the desktop
- Press “IE Normal” button
- The target is making a reboot and start WINCE in “normal” mode

# 10 Version check

You can distinguish the WINCE Build version of the image with version.exe

- press “Start” -> press “RUN” -> In the Open field type “version.exe”
- A version String will be shown

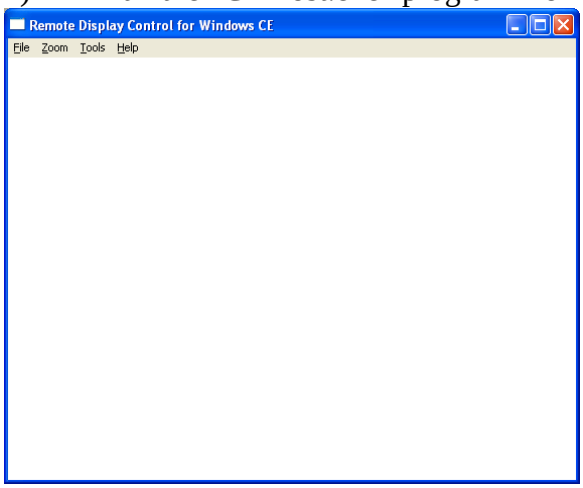
# 11 Remote Display ( From PC -> to WINCE Target) optional

## 11.1 Wince 5.0

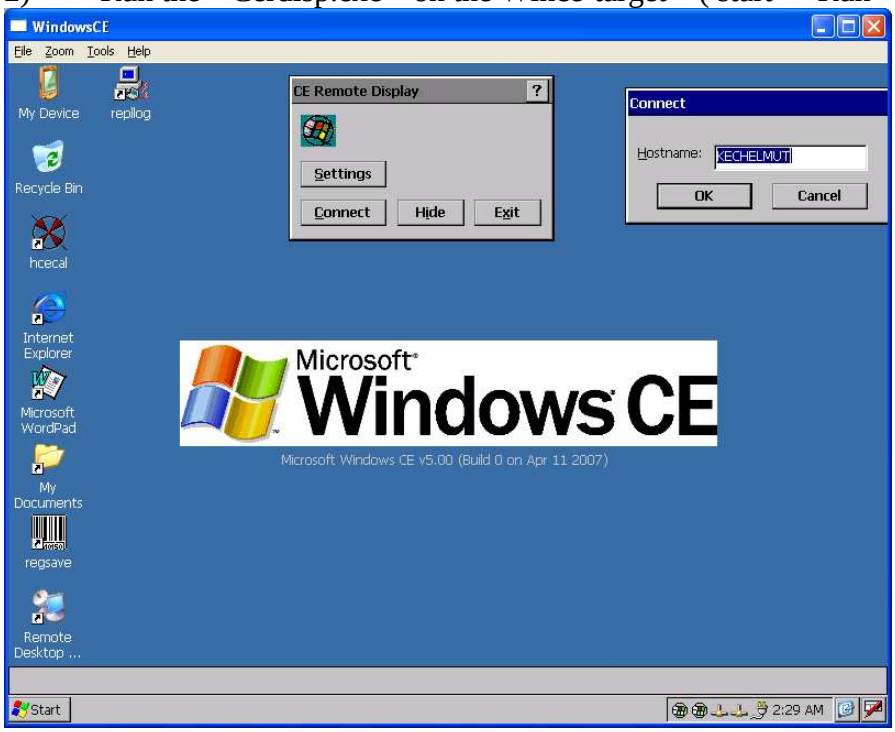
HOST Programm: cerhost.exe ( windows XP )
Server Programm: cerdisp.exe ( WINCE)

**Note: Before using Remote Display you have to make a TCP/IP connection !!**

1) Run the “CErhost.exe” programm on the PC




2) Run the “Cerdisp.exe ” on the Wince-target ( start -> Run -> Cerdisp.exe)



3) Press the “Connect” – Button and type in the dialogbox the Hostname of your PC !

→ The WindowsCE screen will be shown on the PC !!!!

## 11.2 wince 6.0

HOST Programm: cerhost.exe ( windows XP )
Server Programm: cerdisp.exe ( WINCE)

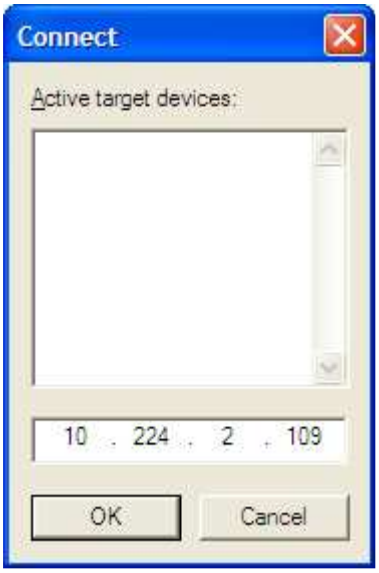
**Note: Before using Remote Display you have to make a TCP/IP connection !!**

1) Run the "Cerhost.exe" programm on the Host PC




2) Run the "Cerdisp.exe -c " on the Wince-target ( start -> Run -> Cerdisp.exe -c)

3) Click on the "File" -> "Connect" button of the Remote Display Control for Windows CE programm of the host PC and type the IP Adresse of the WINCE target in the "Connect" windows. Then press the "OK" button



→ The WindowsCE screen will be shown on the PC !!!!



# 12 Server

## 12.1 RAS Server (optional)

### 12.1.1 HOWTO Configure the RAS Server

1) Execute the \windows\regedit.exe program
2) Put the Ras server configuration desired into the HKLM\Comm\ppp\Server\Parms and HKLM\Comm\ppp\Server\Line\ registry variables
3) Save the registry executing the program \windows\regsave.exe
4) Reboot thesystem

The documentation of the Registy Settings are from the Microsoft WINCE - documentation

#### 12.1.1.1 RAS Server-Settings

Registry Path: HKLM\Comm\ppp\Server\Parms

| Value | Type | Default | Meaning |
|---|---|---|---|
| Enable | DWORD | 0 | Enable(1)\Disable(0) the RAS server. |
| StartupDelaySeconds | DWORD | 20 | Delay until the service starts (at boot time), to wait for other Services to start. |
| UseDHCPAddresses | DWORD | 0 | Assign Ip addresses via DHCP(1) or not (0) |
| UseAutoIpAddresses | DWORD | 1 | Since CE4.1<br>Set to '1' to have the ras serverver generate random Ip addresses from the Auto Ip pool |
| AutoIpSubnet | DWORD | 0xC0A80000 = 192.168.x.x | Subnet, that random Ip addresses are created from, if AutoIp is enabled |
| AutoIpSubnetMask | DWORD | (0xFFFF0000 = 255.255.0.0) | |
| StaticIpAddrStart | DWORD | 0xC0A8FE01 | Define the pool for static Ip Addresses if neither AutoIp nor DHCP is enabled |
| StaticIpAddrCount | DWORD | 254 | |
| AuthenticationMethods | DWORD | 0x00040000 | Bitmask, defining which authentication methods are prohibited:<br>RASEO_ProhibitPAP 0x00040000<br>RASEO_ProhibitCHAP 0x00080000<br>RASEO_ProhibitMsCHAP 0x00100000<br>RASEO_ProhibitMsCHAP2 0x00200000<br>RASEO_ProhibitEAP 0x00400000 |
| Flags | DWORD | 0 | Bitmask.<br>0x01 Requires data encryption<br>0x02 Allow unauthenticated access<br>0x04 Prevent use of VJ header compression<br>0x08 Prevent data compression |

### 12.1.1.2 Line-Settings

Registry Path: HKLM\Comm\ppp\Server\Line\
Configuration for the individual devices, listening for incomming connections
Available Devices can be discovered by using the RasEnumDevices API

| Value | Type | Default | Meaning |
|---|---|---|---|
| Enable | DWORD | 0 | Enable(1)\Disable(0) the RAS server. |
| DeviceType | SZ | 0 | type of the device:<br><br>"direct"<br>"modem"<br>"vpn"<br>"PPPoE" |
| Device Info | Binary | | |
| Flags | DWORD | 0 | Equal to Server Flags.<br>The Server and Line Flags are 'OR'ed to configure a connetion |

### 12.1.2 Start / Stop the RAS server

Start : Executing the program \windows\rasserver start
Stop : Executing the program \windows\rasserver stop

## 12.2 Webserver (HTTP Server) (optional)

The Web Root Directory is set to \Storage Card\

### 12.2.1 Howto Enable Webserver (HTTP Server)

**Set the registry key "IsEnabled"=dword:00000001”**

[HKEY_LOCAL_MACHINE\Comm\HTTPD]
**"IsEnabled"=dword:00000001**
"MaxLogSize"=dword:00008000
"LogFileDirectory"="\\windows\\www"
"NTLM"=dword:00000001
"Basic"=dword:00000000
"AdminUsers"="ADMIN"

Note:
* By default the Webserver is disabled
* The changing will be active after save the registry (Regsave.exe) and reboot the target

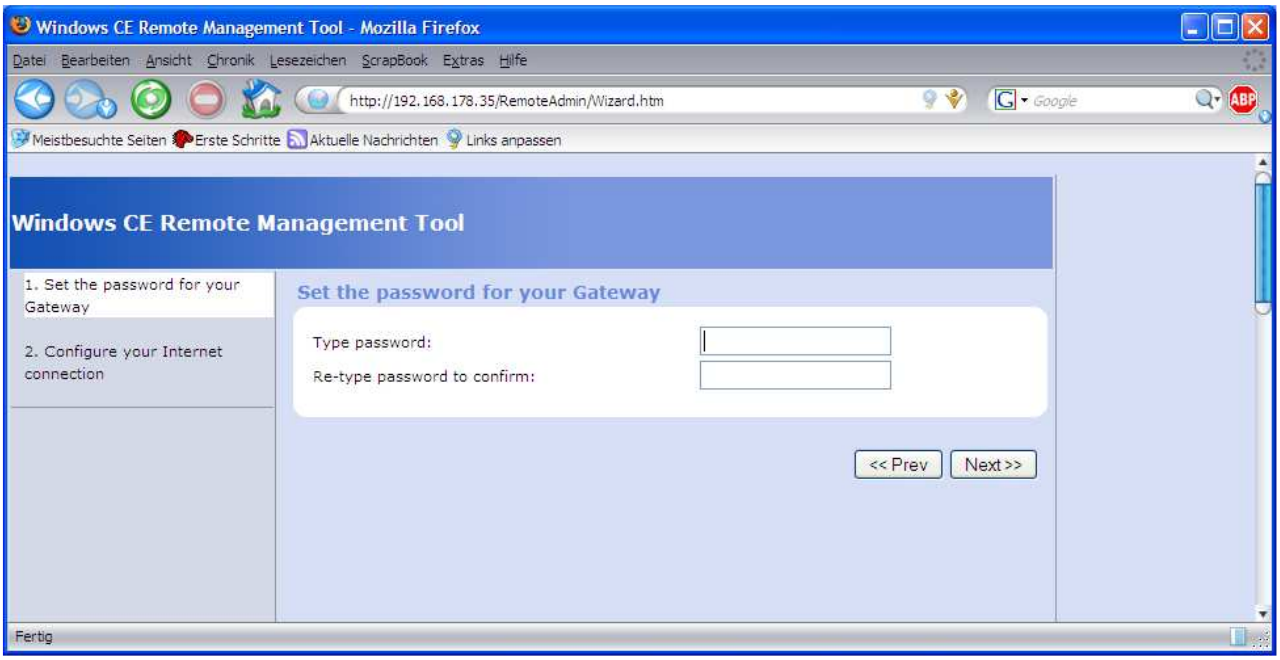
### 12.2.2 Remote administration the Webserver

Remark:
*** Before using remote administration you have to make a TCP/IP connection !!**
* The Webserver must be enabled !!

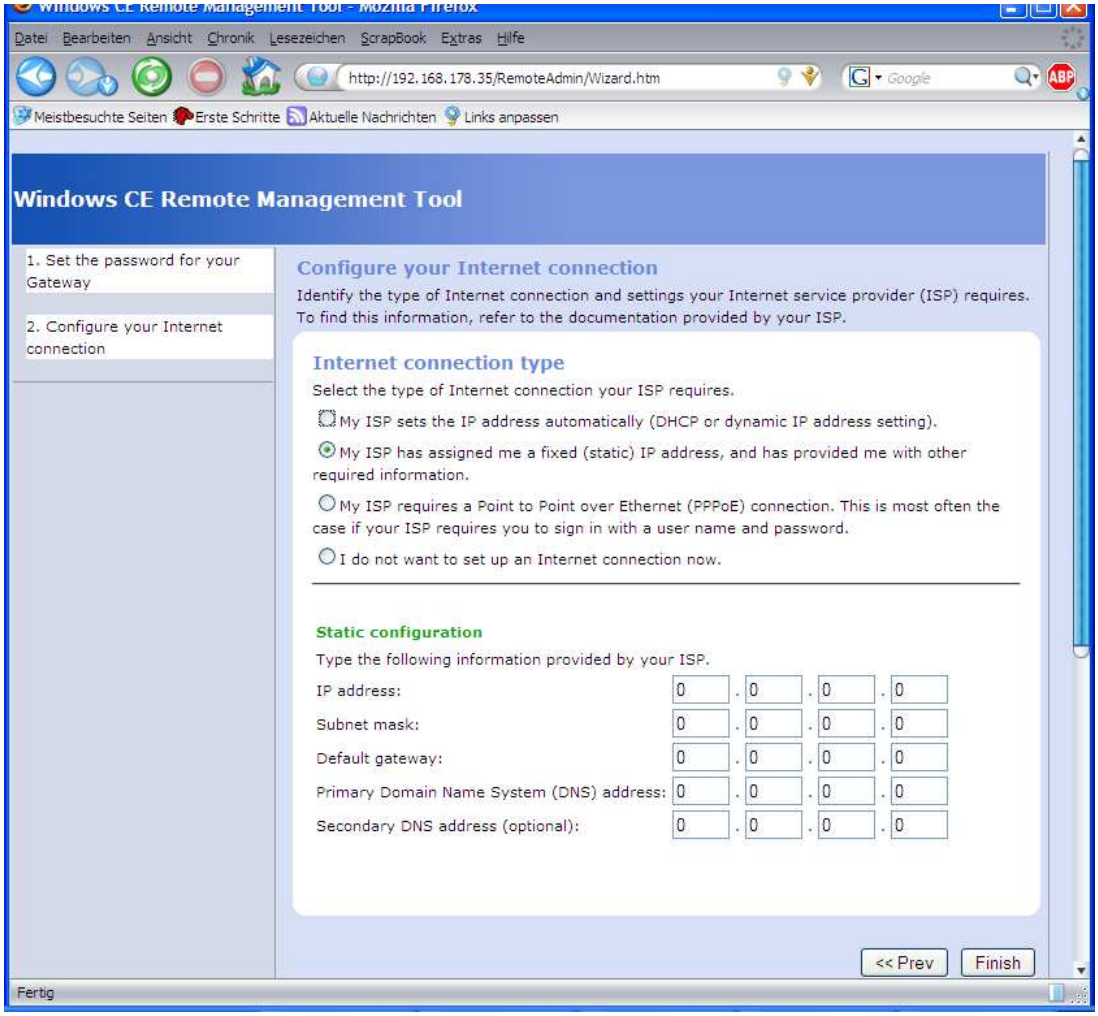
1) Launch the Browser in yout Host PC
2) Type in the URL: http://"IP Adresse Target"/RemoteAdmin/Wizard.htm



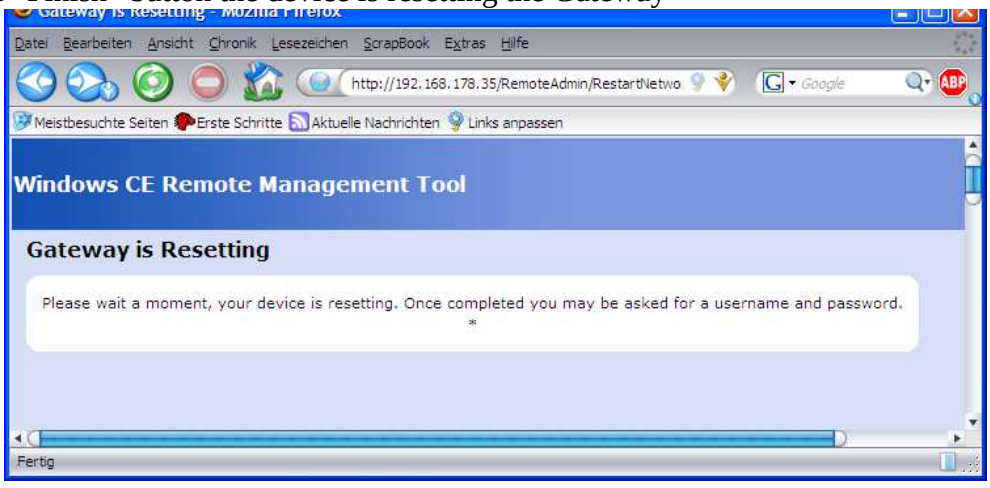

After Press the "Next>>" button the following windows is shown



Type the password and press the “Next >>” Button



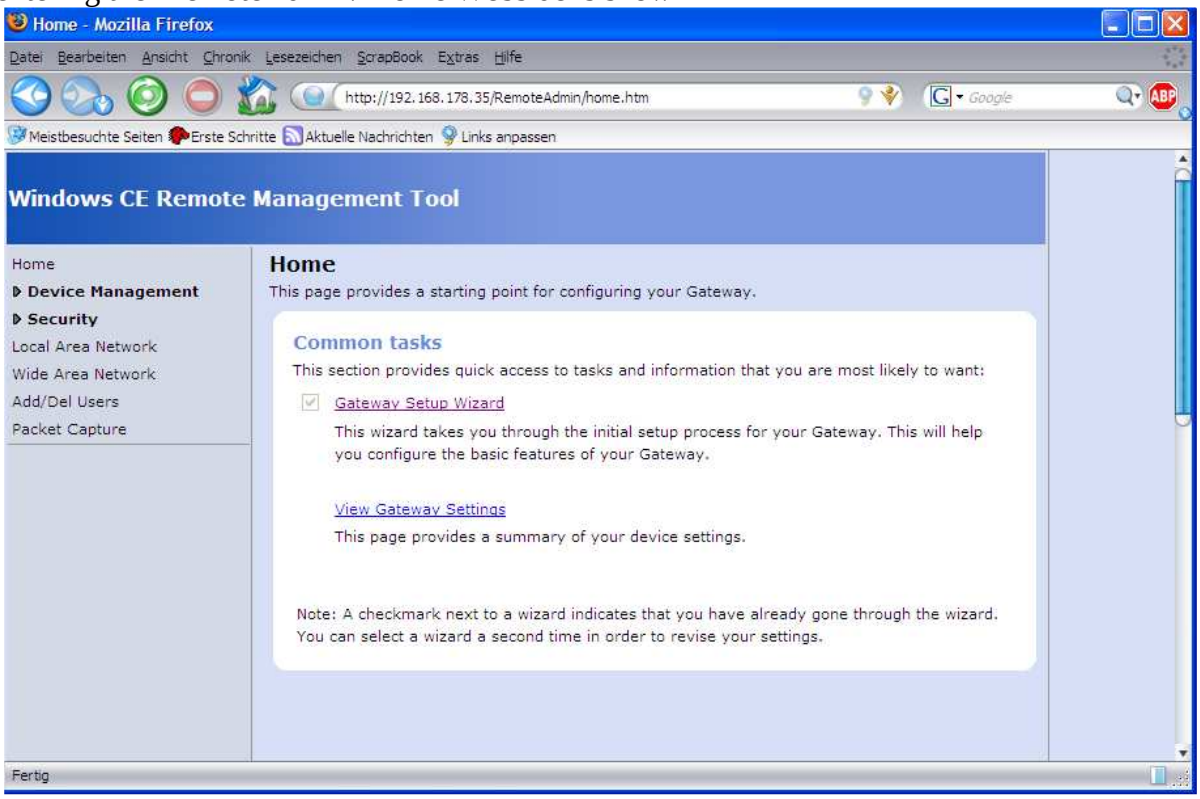

After Press the “Finish” button the device is resetting the Gateway



Once completed you may be asked for a username and password

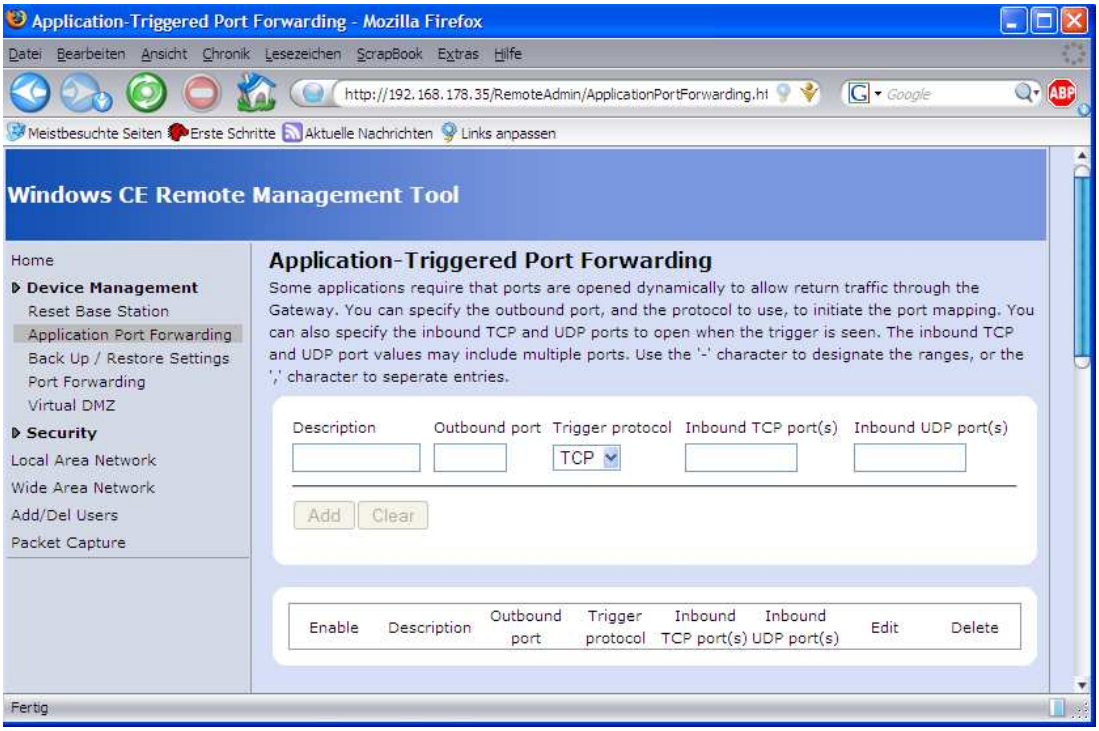
Username: ADMIN
Password: -> You set above !

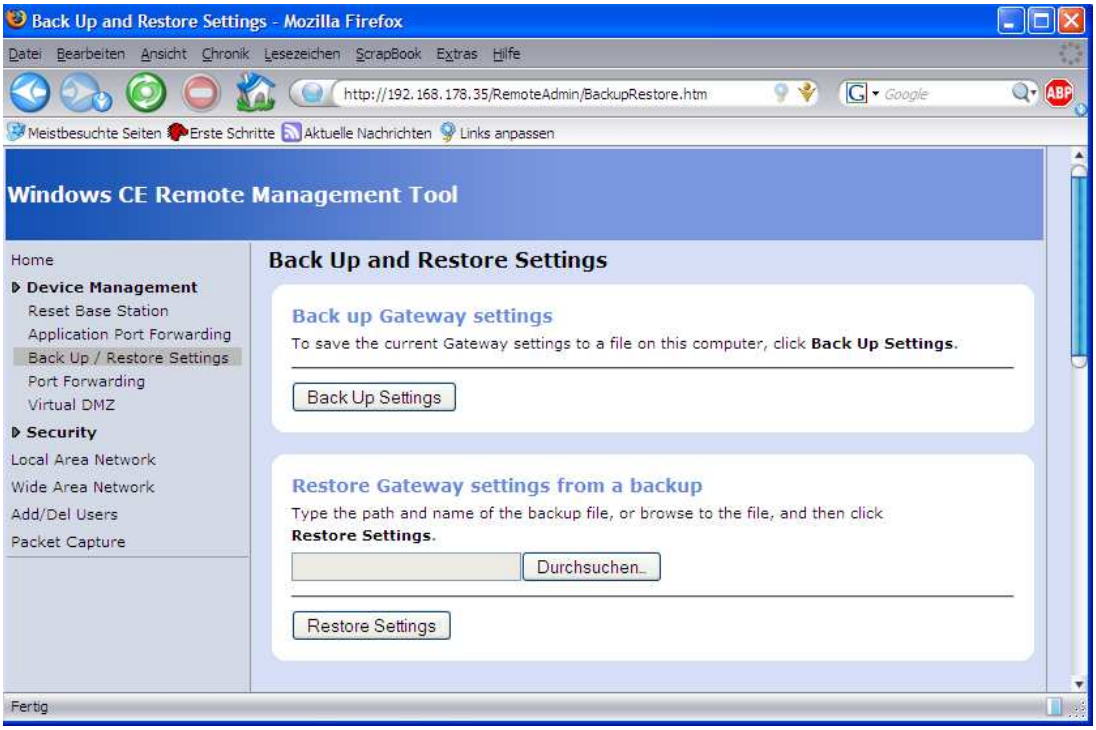
After entering the RemoteAdmin/ Home Webside is shown

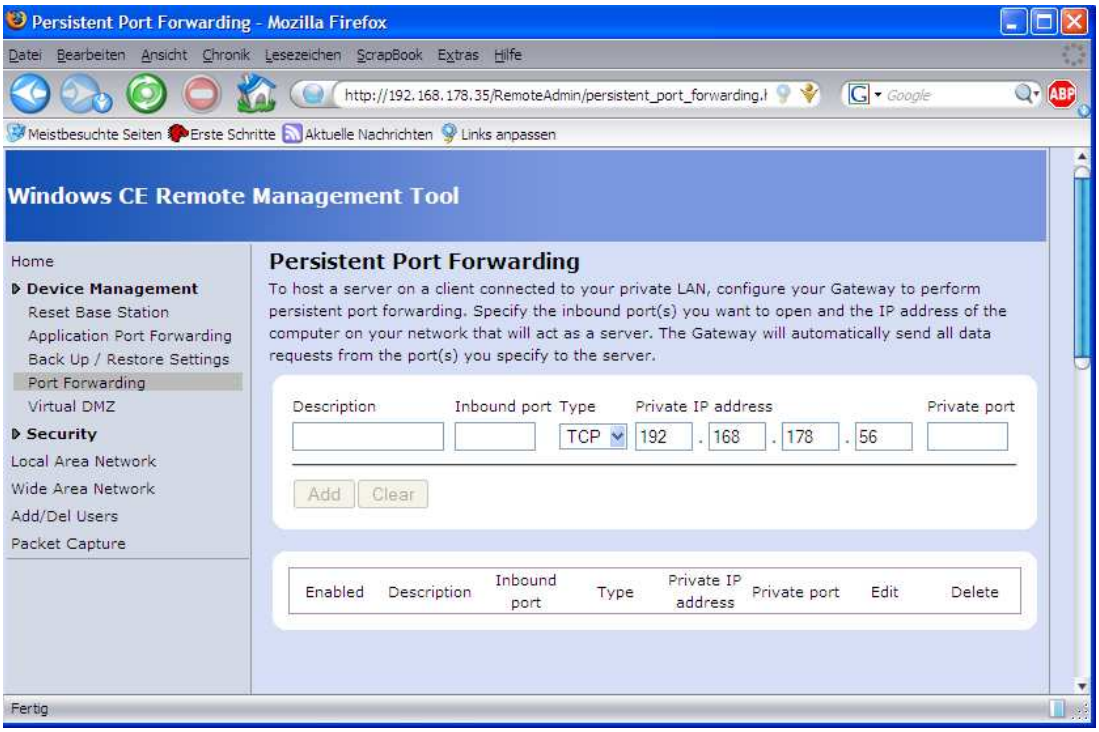


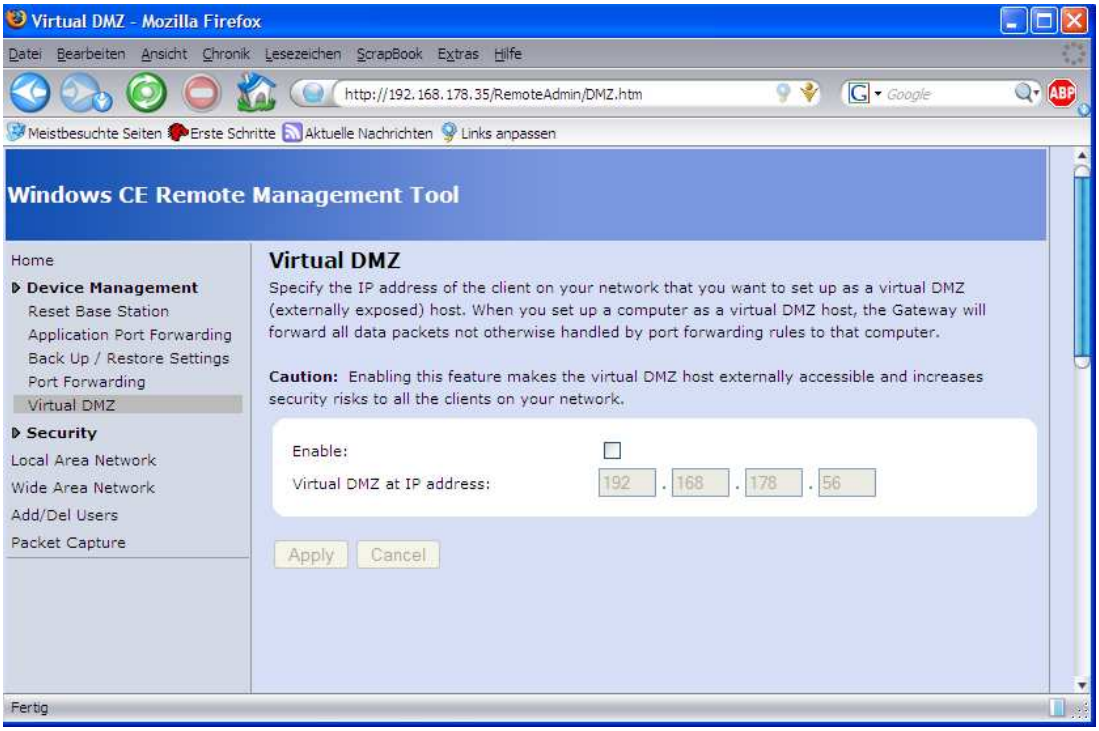
### 12.2.2.1 Device Management



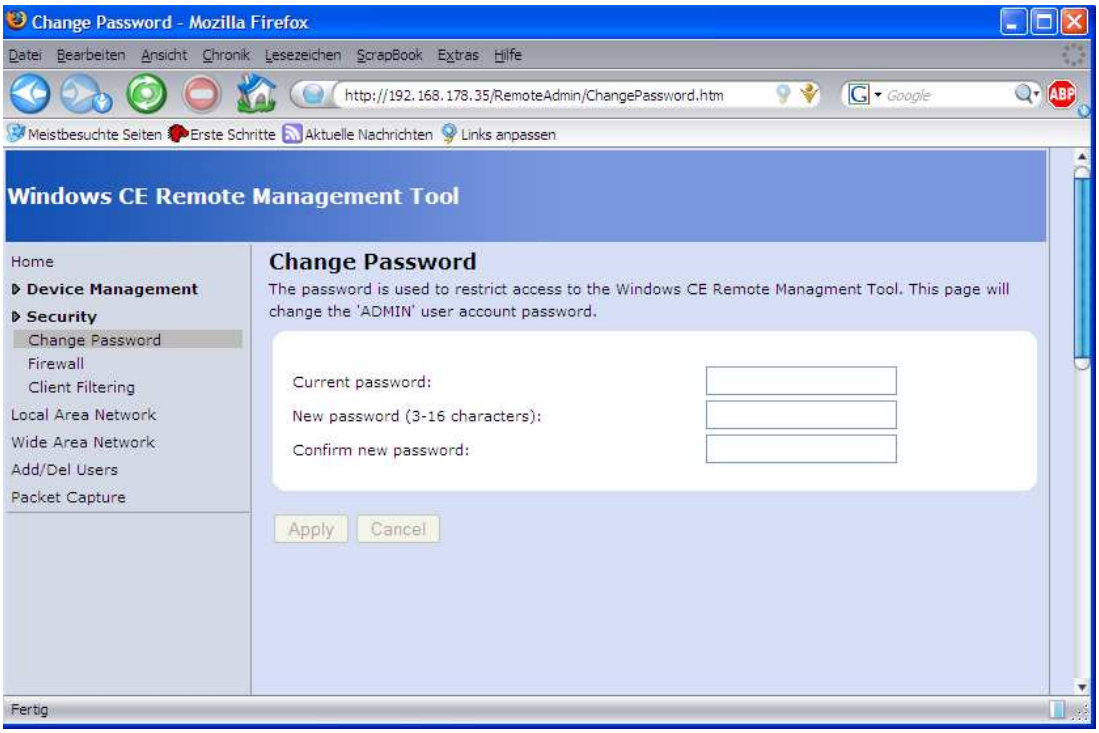




Back Up and Restore Settings - Mozilla Firefox
Datei Bearbeiten Ansicht Chronik Lesezeichen ScrapBook Extras Hilfe
http://192.168.178.35/RemoteAdmin/BackupRestore.htm
Meistbesuchte Seiten Erste Schritte Aktuelle Nachrichten Links anpassen
Windows CE Remote Management Tool
Home
Device Management
Reset Base Station
Application Port Forwarding
Back Up / Restore Settings
Port Forwarding
Virtual DMZ
Security
Local Area Network
Wide Area Network
Add/Del Users
Packet Capture
Back Up and Restore Settings
Back up Gateway settings
To save the current Gateway settings to a file on this computer, click Back Up Settings.
Back Up Settings
Restore Gateway settings from a backup
Type the path and name of the backup file, or browse to the file, and then click Restore Settings.
Durchsuchen...
Restore Settings
Fertig

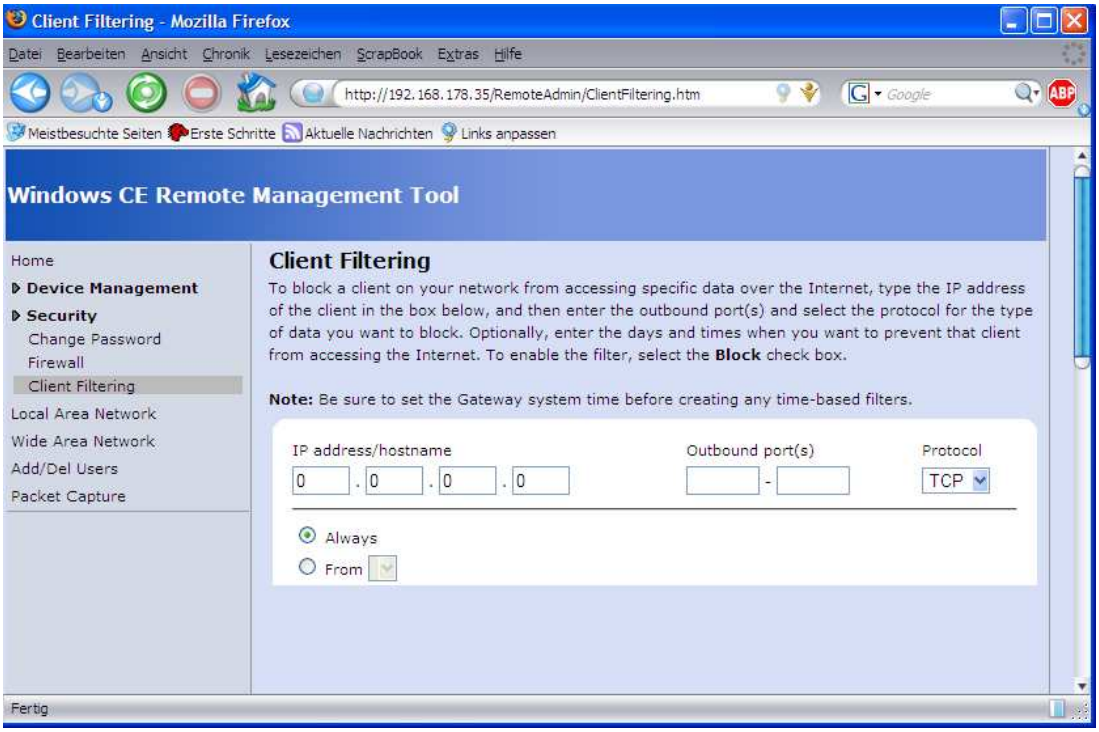

Persistent Port Forwarding - Mozilla Firefox
Datei Bearbeiten Ansicht Chronik Lesezeichen ScrapBook Extras Hilfe
http://192.168.178.35/RemoteAdmin/persistent_port_forwarding.
Meistbesuchte Seiten Erste Schritte Aktuelle Nachrichten Links anpassen
Windows CE Remote Management Tool
Home
Device Management
Reset Base Station
Application Port Forwarding
Back Up / Restore Settings
Port Forwarding
Virtual DMZ
Security
Local Area Network
Wide Area Network
Add/Del Users
Packet Capture
Persistent Port Forwarding
To host a server on a client connected to your private LAN, configure your Gateway to perform persistent port forwarding. Specify the inbound port(s) you want to open and the IP address of the computer on your network that will act as a server. The Gateway will automatically send all data requests from the port(s) you specify to the server.
Description
Inbound port
Type
Private IP address
Private port
TCP
192 . 168 . 178 . 56
Add
Clear
Enabled
Description
Inbound port
Type
Private IP address
Private port
Edit
Delete
Fertig



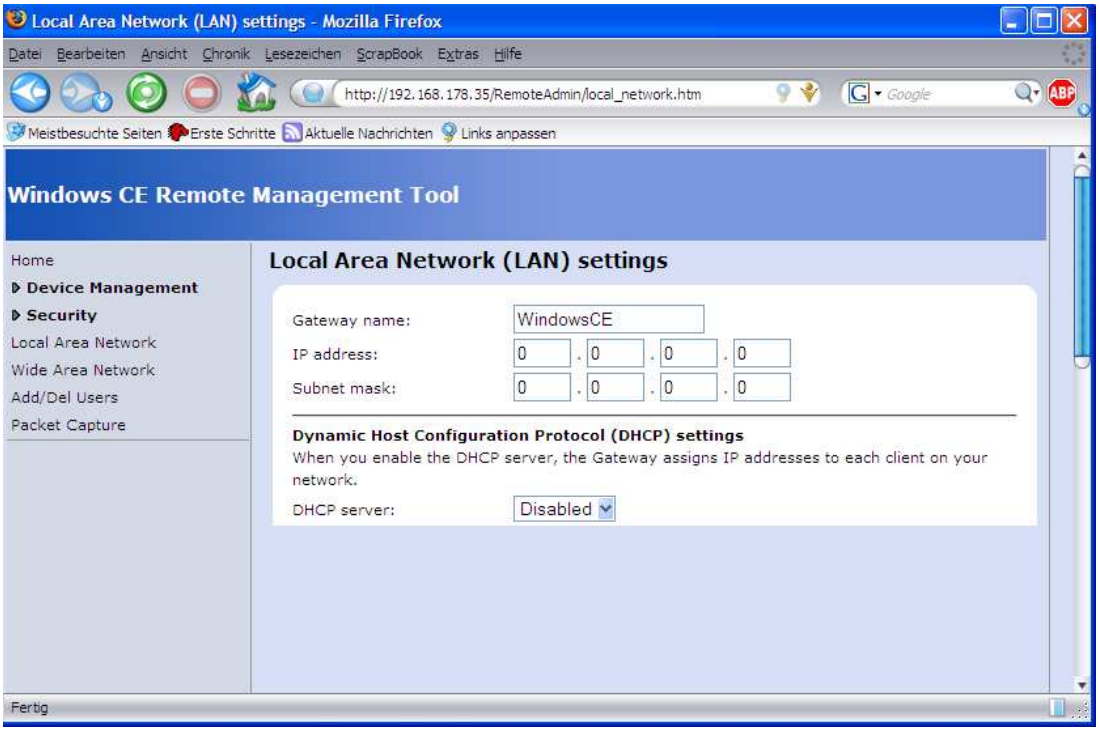

## 12.2.2.2 Security



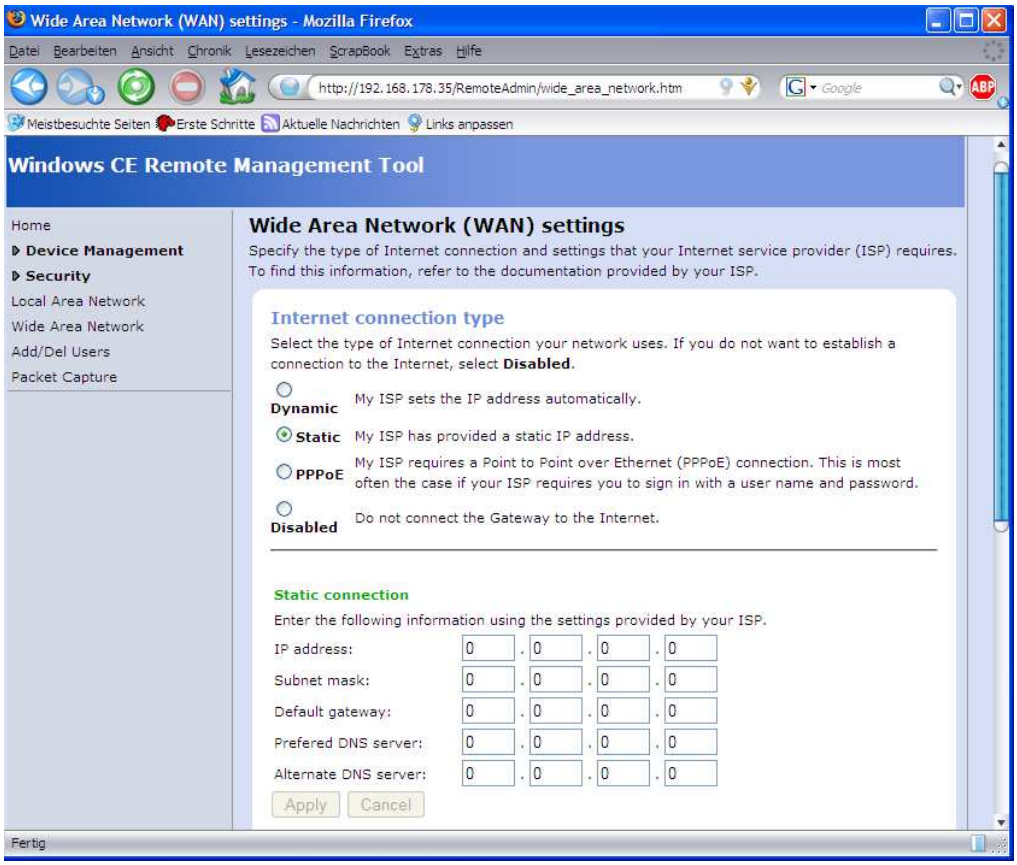

Firewall - Mozilla Firefox
Datei Bearbeiten Ansicht Chronik Lesezeichen ScrapBook Extras Hilfe
http://192.168.178.35/RemoteAdmin/hacker_protection.htm
Meistbesuchte Seiten Erste Schritte Aktuelle Nachrichten Links anpassen
Windows CE Remote Management Tool
Home
Device Management
Security
Change Password
Firewall
Client Filtering
Local Area Network
Wide Area Network
Add/Del Users
Packet Capture
Firewall
The integrated firewall discards suspicious data packets transmitted to your network from the Internet. While you cannot completly disable the firewall, you can disable the firewall rule that blocks ping and other ICMP commands.
Fertig


Client Filtering - Mozilla Firefox
Datei Bearbeiten Ansicht Chronik Lesezeichen ScrapBook Extras Hilfe
http://192.168.178.35/RemoteAdmin/ClientFiltering.htm
Meistbesuchte Seiten Erste Schritte Aktuelle Nachrichten Links anpassen
Windows CE Remote Management Tool
Home
Device Management
Security
Change Password
Firewall
Client Filtering
Local Area Network
Wide Area Network
Add/Del Users
Packet Capture
Client Filtering
To block a client on your network from accessing specific data over the Internet, type the IP address of the client in the box below, and then enter the outbound port(s) and select the protocol for the type of data you want to block. Optionally, enter the days and times when you want to prevent that client from accessing the Internet. To enable the filter, select the Block check box.
Note: Be sure to set the Gateway system time before creating any time-based filters.
IP address/hostname
Outbound port(s)
Protocol
TCP
Always
From
Fertig

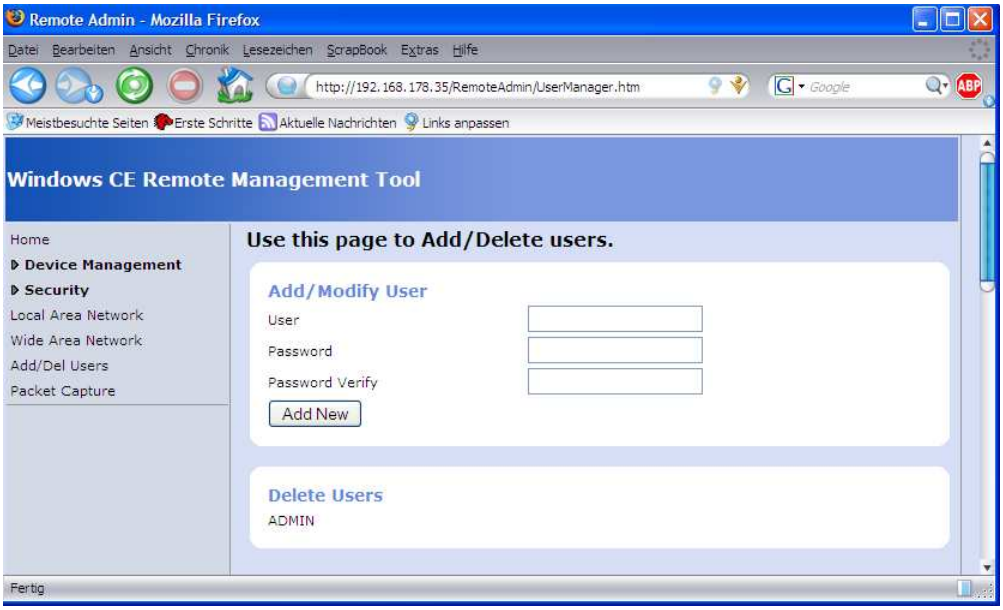
### 12.2.2.3 Local Area Network (LAN) settings



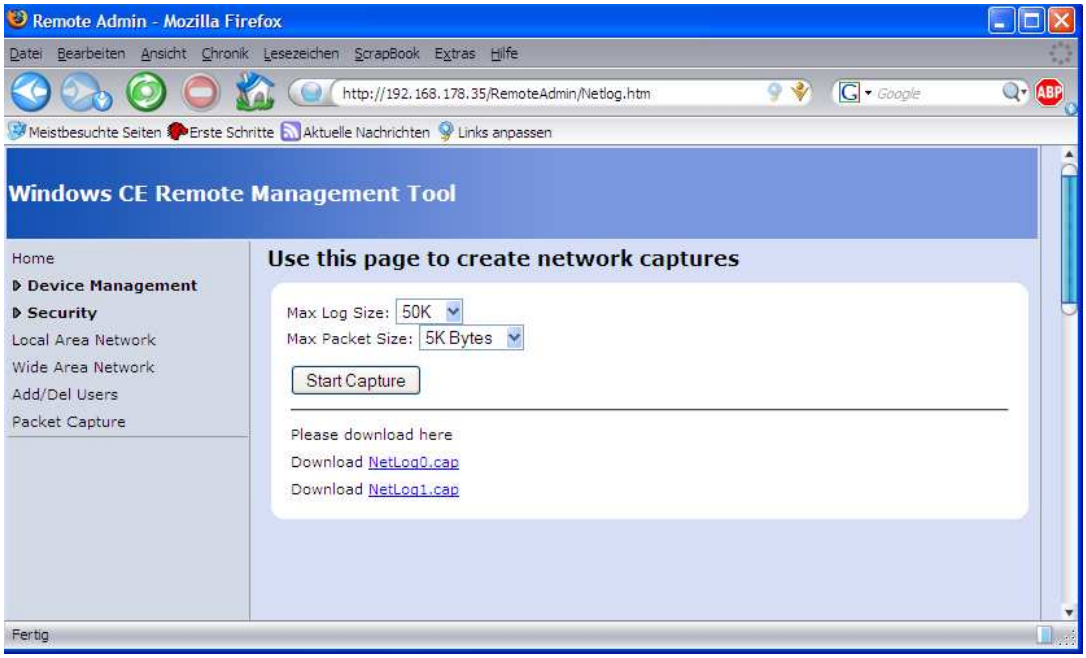
### 12.2.2.4 Wide Area Network (WAN) settings




### 12.2.2.5 Add/Del Users settings



#### 12.2.2.6 Packet Capture




## 12.3 FTP Server (optional)

### 12.3.1 Howto Enable FTP server

**Set the registry key "IsEnabled"=dword:00000001”**

```
[HKEY_LOCAL_MACHINE\Comm\FTPD]
"IsEnabled"=dword:00000001
"UseAuthentication"=dword:00000001
"AllowAnonymous"=dword:00000001
"AllowAnonymousUpload"=dword:00000001
"AllowAnonymousVroots"=dword:00000000
"DefaultDir"="\\"
"IdleTimeout"=dword:0000012c
"DebugOutputChannels"=dword:00000002
"DebugOutputMask"=dword:00000017
"BaseDir"="\\Windows"
"LogSize"=dword:00001000
"UserList"="ADMIN"
"NoSystemInfo"=dword:00000000
```

Note:
* By default the FTP server is disabled
* The changing will be active after save the registry (Regsave.exe) and reboot the target

## 12.4 Telnet Server (optional)

### 12.4.1 Howto Enable Telnet server

**Set the registry key "IsEnabled"=dword:00000001”**

```
[HKEY_LOCAL_MACHINE\Comm\TELNETD]
"UseAuthentication"=dword:00000000
"IsEnabled"=dword:00000001
"UserList"="ADMIN"
```

Note:
* By default the Telnet server is disabled
* The changing will be active after save the registry (Regsave.exe) and reboot the target

## 12.5 Serveron\Serveroff – Testtool – (optional)

There is an Testtool from Kontron available which you can enable\disable the Webserver, FTP Server and the Telnetserver !
It is important that you launch the regsave.exe and reboot the target after lauching the Testtools

NOTE: The Testtools only for Test !! Not for the PRODUCTION USING and Enduser customer !!!

# 13 FAQ

## 13.1 Autostart the Remote Desktop ( with passwort) (optional) (wince 5.0)

- press “Start” -> press “RUN” -> In the Open field type “cetscp.exe”
  - Press “Options >>”
    - Fill in : “Computer: “ ; “User name:”; “Password:” ; “Domain”
    - Activate “Save my password”
  - Press “Save As” and save the “default.rdp “ file in “Storage Card”\Startup

- include in the startup.bat (\”Storage Card”\Startup) the two lines
  - copy \”Storage Card”\startup\default.rdp \
  - start cetscp.exe default.rdp

After Reboot the Target the RDP will be autostart and connect to the RDP server

## 13.2 Activate Remote Desktop (RDP) Autologon ( with password) – wince 6.00

### 13.2.1 Howto Autologon:

1) Launch " Remote Desktop Connection"
2) Press "Options >>" Button
3) In "Computer:" textbar specify the Remote Desktop Computername (eg. Helmut)

   Note: User name: None specified
   The computer name field is blank . Enter a remote computer name.

   After insert the remote computer name

   Note: User name: None specified
   You will be asked for credentials when you connect

4) After press the "Connect" Button the "Remote Desktop Connection" windows appears
   In "user name:" text box type the user name of the Remote computer to connect
   In "Password:" text box type the password of the Remote computer to connect

   Mark the "Remember my password"

5) After press the "OK" Button a windows appear with the message
   "The identity of the remote computer cannot be verified. Do you want to connect anyway ? ……..

   mark the "Don't show the warning again for connections to this remote computer"
   and press the "YES"

6) If all looks fine you should connect to the specified Remote Desktop

7) Close the session to the Remote Desktop Computer

8) Launch " Remote Desktop Connection" again

9) Press "Options >>" Button

10) In computer name field you see the Computername of the Remote computer

    Note: User name: XXXXXX
    The saved credentials for this remote computer will be used to connect.
    You can delete or edit these credentials .

11) Press “Save As….” Button and specify the name of the RDP file and save to storage device (eg. \Storage Card\startup\session.rdp)
With Press the “OK” Button the RDP file will be saved

12) After press the “Connect” Button the “Remote Desktop Connection” windows appears

In “user name:” field you see the computername\user name
In “Password:” field please enter again the password of the Remote computer to connect

Mark the “Remember my password”

13) If all looks fine you should connect to the specified Remote Desktop

14) Close the session to the Remote Desktop Computer

15) Press the “regsave.exe” on the desktop

16) Edit the startup.bat in the Startup folder to (optional)

\windows\cetsc.exe \Storage Card\startup\session.rdp

17) Reboot the target

18) After Boot the target follwing windows appear.

“Remote Desktop Connection”
Do you trust the computer you are connecting to? ……

Mark the “Allow access to your local clipboard”
Mark the “ Don’t prompt me again for connections to this computer”

Then press the “Yes” button

19) Close the session to the Remote Desktop Computer

20) Press the “regsave.exe” on the desktop

21) After reboot the target -> RDP Autologon is enabled

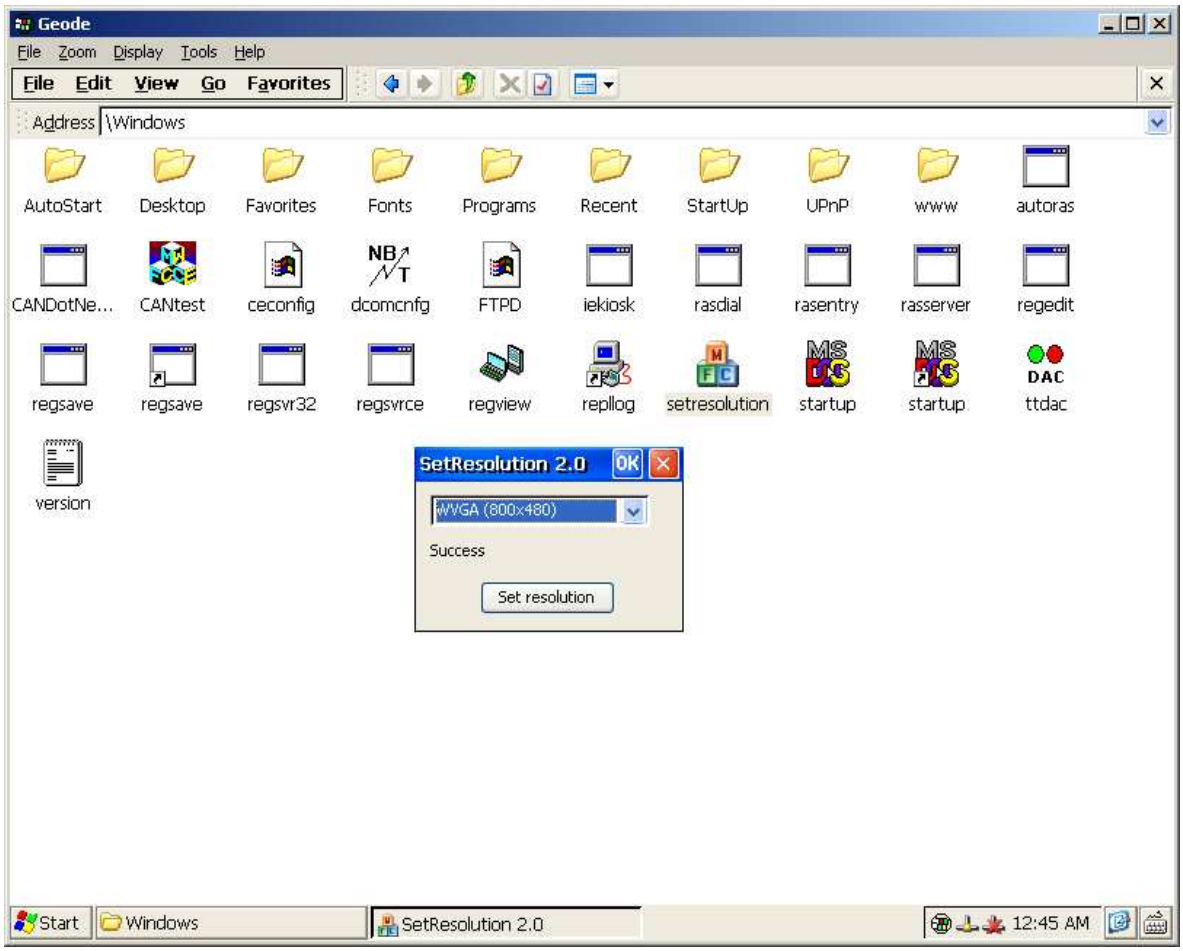
Enjoy ☺

### 13.2.2 \startup\startup.bat

```
  echo off
REM Kontron Embedded Computers GmbH      6.5.2008   HOs
REM
REM   Batchfile for Autostart files after booting
REM   which is not build in the image
REM
REM   strategy:
REM   1) Make a directory on the HDD
REM   2) Copy the files in the directory
REM   3) Make a entry in the startup.bat, to start the Application automatically
REM
REM   Example:  start \"Storage Card"\App\App1.exe
REM
REM ;;;
```

## 13.3 Howto change the Resolution

1) Launch “setresolution “ programm from the \windows folder




2) choice the resolution

WVGA ( 800x480) -> 7’’ Microclient 2
SVGA ( 800x600) -> 10’’, 12’’ Microclient 2
XGA ( 1024x768) -> 15’’ Microclient 2

3) Press the “ Set resolution” button and the resolution is saved in the registry
4) After reboot the new resolution is set

## *13.4 SNTP client support (Simple Network Time Protocol) – optional*

Synchronizing the clocks of the Target will be occurred if the SNTP client is active

Note: Default is SNTP active if implemented

```
HKEY_LOCAL_MACHINE\Services\TIMESVC]
"Dll"="timesvc.dll"
"Order"=dword:00000099
"Keep"=dword:00000001
"Prefix"="NTP"
"Index"=dword:00000000
"server"=hex(7):\
      74,6f,63,6b,2e,75,73,6e,6f,2e,6e,61,76,79,2e,6d,69,6c,00,74,69,6d,65,2e,77,\
      69,6e,64,6f,77,73,2e,63,6f,6d,00,00,00,00,00,00
"ServerRole"=dword:00000001
"UserProcGroup"=dword:00000002
"Flags"=dword:00000010
"multicastperiod"=dword:0036ee80
"mulicast"=hex(7):\
      32,32,34,2e,30,2e,31,2e,31,20,66,66,30,35,3a,3a,31,30,31,00,00,00,00
"ClientOnly"=dword:00000001
"trustlocalclock"=dword:00000000
"threshold"=dword:000d2f00
"refresh"=dword:000493e0
"recoveryrefresh"=dword:000493e0
"AutoUpdate"=dword:00000001
```

**AutoUpdate = 1 -> SNTP activated**
**AutoUpdate = 0 -> SNTP deactivated**