QUICK MANUAL

Kontron WINCE 5.00 image
for Microclient with ETX-PM Modul

Revision History

ChangeLog			
Rev	**Description**	**Date**	**Author**
01	Initial Release	08.05.2006	HOstermeier

Table of Contents

1 Preface

The document described the Feature, Adjustment to develop a WINCE 5.00 Image for the Microclient with ETX-PM   Modul

2 Features

- **On-Board Hardware Support**
    - COM Ports
    - USB port
    - Parallel Port
    - Ethernet connection
    - VGA output,
    - Flat panel interface

- **Storage Devices**
    - **Compactflash**

- **User Interface**
    - PS/2 Mouse + PS/2 Keyboard
    - USB Mouse + USB Keyboard

- **Communication Services and Networking**
    - Wired LAN 802.3
    - Dial-up networking
    - Telnet server
    - FTP server
    - Active Sync

- **Application**
    - **Internet Explorer 6.0 (kioskmode – iefull.exe)**
    - **Wordpad**
    - **Startup Applikationen**
    - **Compact Framework Modul**
    - **Remote Desktop**

- **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	Active Sync
COM2	0x2F8	3	Touch

1

2.2 Image Size

Release: ca 25,5 MB -> Platform Builder

2.3   Multilingual User Interface

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

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

3.1 Null modem Pin Connetion

2 RxD		2 RxD
3 TxD		3 TxD
4 DTR		4 DTR
5 SG		5 SG
6 DSR		6 DSR
7 RTS		7 RTS
8 CTS		8 CTS
1 DCD		1 DCD
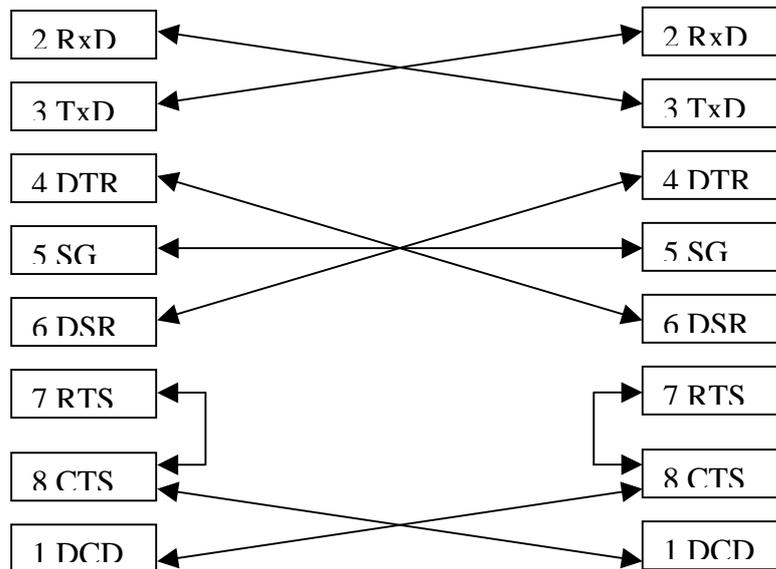
4   Make a Network connections

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 * \\Remote name\Local name

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 Preparation the storage-Device :

1) Make a boot DOS Disk (DOS6.22)
2) Copy Files and Subfolder under **\disk1** on disk !!!
3) Boot with disk and launch start.bat (confirm with Y)
4) Copy **nk.bin** (CE-Image) to drive

5.2 BIOS Settings ETX-PM Modul   (R116)

Note:

- The most important Settings are marked blue !!!!
- Settings after copy the CE-Images
- Press „F2„ Key as long as booting the BIOS-setup starts

5.2.1 Main

```
                        PhoenixBIOS  Setup Utility

   Main      Advanced      Security      Power      Boot      Exit

 System Time                      Xxxxxx                          Item  Specific help
 System Date                      Xxxxxx


 Legacy Diskette A:               [Disabled]
 Legacy Diskette B:               [Disabled]


 > Primary Master                 [ None ]
 > Primary Slave                  [ None ]


 SMART Device Monitoring          [Enabled]


 System Memory                    Xxxxx
 Extended Memory                  Xxxxx



 F1   Help        ↑↓  :  Select Item    -/+    Change Value      F9    Setup Defaults

 Esc  Exit            Select Menu    Enter   Select > Sub-Menu   F10   Save and Exit
```

5.2.1.1 Primary/Secondary Master/Slave

PhoenixBIOS Setup Utility	
Main	
Primary Master / Primary Slave Secondary Master / Secondary Slave	Item Specific help
Type [Auto] XXXXX	
Multi-Sector Transfer : [16 Sectors]	
LBA Mode Control : [Enabled]	
32 Bit I/O [Disabled]	
Transfer Mode : [FPIO 4 / DMA 2]	
Ultra DMA Mode: [Disabled]	
SMART Monitoring : Disabled	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2 Advanced

PhoenixBIOS Setup Utility	
Main **Advanced** **Security** **Power** **Boot** **Exit**	
Setup Warning	Item Specific help
Setting items on this menu to incorrect values my cause your system to malfunction	
> Advanced Chipset Control	
> PCI/PNP Configuration	
> Memory Cache	
> I/O Device Configuration	
> Keyboard Features	
> Hardware Monitor	
> Watchdog Settings	
> Display Control	
> Miscellaneous	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults	
Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

Quick_MIC_ETXPM_CE50-Tech
Manual_V01_E.doc

5.2.2.1   Advanced Chipset Control

PhoenixBIOS Setup Utility	
Advanced	
Advanced Chipset Control	Item Specific help
Enable Memory Gap [Disabled]	
Graphics Engine 1 [Enabled]	
Graphics Engine 2 [Enabled]	
Graphics Memory [UMA=8MB]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults	
Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2.2   PCI/PNP Configuration

PhoenixBIOS Setup Utility	
Advanced	
PCI Configuration	Item Specific help
PNP OS Installed [No]	
Reset Configuration Data [No]	
Secured Setup Configuration [No]	
> PCI Device, Slot #1	
> PCI Device, Slot #2	
> PCI Device, Slot #3	
> PCI Device, Slot #4	
PCI IRQ line 1: [Auto Select]	
PCI IRQ line 2: [Auto Select]	
PCI IRQ line 3: [Auto Select]	
PCI IRQ line 4: [Auto Select]	
Onboard LAN IRQ line [Auto Select]	
Onboard USB IRQ line [Auto Select]	
> PCI/PNP ISA IRQ Resource Exclusion	
Default Primary Video Adapter [AGP]	

F1	Help	↑↓ : Select Item	-/+	Change Value	F9	Setup Defaults
Esc	Exit	Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit

5.2.2.2.1 PCI Device, Slot #1 / #2 / #3 /#4

PhoenixBIOS Setup Utility	
Advanced	
PCI Device, Slot #1 / #2 / #3 / #4	Item Specific help
Option ROM Scan: [Enabled] Enable Master: [Disabled] Latency Timer: [Default]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2.2.2 PCI/PNP ISA IRQ Resource Exclusion

PhoenixBIOS Setup Utility	
Advanced	
PCI/PNP ISA IRQ Resource Exclusion	Item Specific help
IRQ 3: [Available] IRQ 4: [Available] IRQ 5: [Available] IRQ 7: [Available] IRQ 9: [Available] IRQ 10: [Available] IRQ 11: [Available] IRQ 12: [Available]	

F1	Help	↑↓	:	Select Item	-/+	Change Value	F9	Setup Defaults
Esc	Exit			Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit

5.2.2.3   Memory Cache

PhoenixBIOS Setup Utility		
Advanced		
Memory Cache		Item Specific help
Memory Cache:	[Enabled]	
Cache System BIOS area:	[Write Protect]	
Cache Video BIOS area:	[Write Protect]	
Cache Base 0 – 512k	[Write Back]	
Cache Base 512 – 640k	[Write Back]	
Cache Extended Memory Area :	[Write Back]	
Cache D000 – D3FF:	[Disabled]	
Cache D400 – D7FF:	[Disabled]	
Cache D800 – DBFF:	[Disabled]	
Cache DC00 – DFFF:	[Disabled]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults		
Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit		

5.2.2.4   I/O Device Configuration

PhoenixBIOS Setup Utility		
Advanced		
I/O Device Configuration		Item Specific help
Local Bus IDE adapter:	[Primary]	
Primary IDE UDMA66/100:	[Enabled]	
USB UHCI Host Controller 1:	[Enabled]	
USB UHCI Host Controller 2:	[Enabled]	
USB EHCI Host Controller :	[Enabled]	
Legacy USB Support:	[Enabled]	
AC97 Audio controller:	[Enabled]	
Onboard LAN Controller	[Enabled]	
Onboard LAN PXE ROM:	[Disabled]	
Serial port A:	[Enabled]	
Base I/O address	[3F8]	
Interrupt:	[IRQ 4]	
Serial port B:	[Enabled]	
Mode:	[Normal]	
Base I/O address:	[2F8]	
Interrupt:	[IRQ 3]	
Parallel port:	[Disabled]	
Mode:	[Bi-directional]	
Base I/O address	[378]	
Interrupt:	[IRQ 7]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults		
Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit		

5.2.2.5 Keyboard Features

PhoenixBIOS Setup Utility	
Advanced	
Keyboard Features	Item Specific help
NumLock: [On] Key Click: [Disabled] Keyboard auto-repeat rate: [30/sec] Keyboard auto-repeat delay: [1/2 sec]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2.6 Hardware Monitor

PhoenixBIOS Setup Utility	
Advanced	
Hardware Monitor	Item Specific help
VCC 3.3V Voltage = XXXX CPU Core Voltage = XXXX 5Vsb Voltage = XXXX Battery Voltage = XXXX CPU Temperature = XXXX	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2.7   Watchdog Settings

PhoenixBIOS Setup Utility	
Advanced	
Watchdog Settings	Item Specific help
Mode : [Disabled]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2.8   Display Control

PhoenixBIOS Setup Utility	
Advanced	
Display Control	Item Specific help
Display Mode: [CRT+LFP] JDA Revision: 1.4 Flat Panel Type: [Auto] Flat Panel Scaling [Stretched] Flat Panel Backlight: [128]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.2.9   Miscellaneous

PhoenixBIOS Setup Utility	
Advanced	
Miscellaneous	Item Specific help
Floppy check: [Disabled]	
Summary screen: [Disabled]	
QuickBoot Mode: [Enabled]	
Extended Memory Testing: [Just zero it]	
Dark Boot: [Disabled]	
Halt on Errors: [No]	
PS2 Mouse: [Auto Detect]	
Large Disk Access Mode: [DOS]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

5.2.3 Security

```
                          PhoenixBIOS  Setup Utility

   Main      Advanced     Security     Power      Boot    Exit
                                                              |
                                                              |      Item  Specific help
                                                              |
                                                              |
   Supervisor Password Is:          Clear                     |
   User Password IS:                Clear                     |
                                                              |
                                                              |
   Set Supervisor Password          [ Enter ]                 |
   Set User Password                [ Enter ]                 |
                                                              |
                                                              |
   Diskette access:                 [Supervisor]              |
   Fixed disk boot sector:          [Normal]                  |
   Virus check reminder             [Disabled]                |
   System backup reminder           [Disabled]                |
   Password on boot:                [Disabled]                |
                                                              |
                                                              |
   F1   Help        ↑↓  :  Select Item    -/+    Change Value      F9   Setup Defaults

   Esc  Exit             Select Menu     Enter  Select > Sub-Menu  F10  Save and Exit
```

5.2.4 Power

PhoenixBIOS Setup Utility

Main	Advanced	Security	Power	Boot	Exit

	Item Specific help
Enable ACPI [No]	
Automatic Thermal Control Circuit [TM1]	
Power Savings [Disabled]	
Hard Disk Timeout [Disabled]	
Video Timeout [Disabled]	
Resume On Modem Ring: [Off]	
Resume On Time: [Off]	
Resume Time: [00:00:00]	
Power Supply [ATX]	
Power Base Function [Sleep]	
Power Loss Control [Last State]	

F1	Help	↑↓	:	Select Item	-/+	Change Value	F9	Setup Defaults
Esc	Exit			Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit

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5.2.5 Boot

PhoenixBIOS Setup Utility	
Boot	
	Item Specific help

Boot priority order:
 	
1:                 USB KEY:
2:                 IDE 0:
3:                 IDE 1:
4:                 IDE 2:
5:                 IDE 3:
6:                 IDE CD:
7:                 USB CDROM:
8:
 	
Excluded from boot order:
 	
     : USB FDC:
     : USB HDD:
     : USB ZIP:
     : USB LS120:
     : PCI BEV:
     : PCI SCSI:
     : Bootable Add-in Cards
     : Legacy Network Card	

F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

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 !!!

1) Press "Shift" immediately and always after Power ON
2) Launch Cleanreg.bat -> Registry is deleted !!1
3) Reboot
4) 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 \"Hard Disk"\App\App1.exe
REM
REM ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
REM ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
```

9 IE in KIOSmode

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 FAQ

Autostart the Remote Desktop (with passwort)

- 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 "Hard Disk"\Startup

- include in the startup.bat (\"Hard disk"\Startup) the two lines

    - copy \"Hard Disk"\startup\default.rdp \
    - start   cetscp.exe default.rdp

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