

Windows CE 5.0 - Device Driver Development

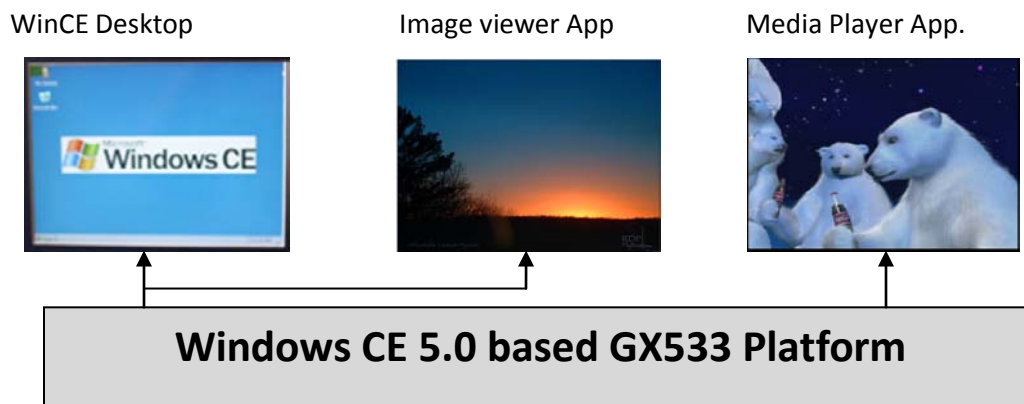
Multi-monitor Display Driver

Project Objective:

To provide display driver support for 3 independent monitors running on windows CE platform

Approach:

Display driver development work was carried out to display three independent applications on two CRT monitors and one LCD display. Display drivers were combined to work as multi-monitor display under windows CE 5.0. Application was developed to demonstrate multi-monitor features of display driver.



Challenges:

Challenge was to activate two display cards on the same PCI bus and to modify them to work as a multi-monitor display driver on Windows CE 5.0.

Tools and Platforms:

Platform Builder 5.0

eVC++ 4.0

Efforts: 8 person months

Windows CE 5.0 - BSP Development

Freescal – iMX21 based platform

Project Objective:

To develop BSP for customized iMX21 platform running Windows CE 5.0

Approach:

Boot loader development was done by adding debug messages at various stages. Modifications were done as per new hardware. Splash Screen support was added considering new LCD panel. LCD Driver development for new LCD Panel.

Support added for following drivers -

USB drivers: Host driver and Client driver, Ethernet driver, Touch screen driver

SD/MMC card, audio driver, Demo Application was developed to demonstrate features of the platform



Windows CE 5.0 based iMX21 Platform

Challenges:

Challenge was to development and port Windows CE BSP on a new hardware considering device specific changes.

Tools and Platforms:

Platform Builder 5.0

Visual Studio 2005.

Efforts: 6 person months

Windows CE 6.0 - BSP Development

Freescal – iMX21 based platform

Project Objective:

To migrate BSP from Windows CE 5.0 to Windows CE 6.0.

Approach:

Steps were followed to migrate ARM based Windows CE 5.0 BSP to Windows CE 6.0 BSP as given by Microsoft. Windows CE 6.0 specific changes were done in all device drivers to function them properly.



Windows CE 6.0 based iMX21 Platform

Challenges:

This is the first Windows CE 6.0 BSP for iMX21 platform

Tools and Platforms:

Visual Studio 2005

Platform Builder CE 6.0

Efforts: 3 Person months

Windows CE 5.0 - Application Development

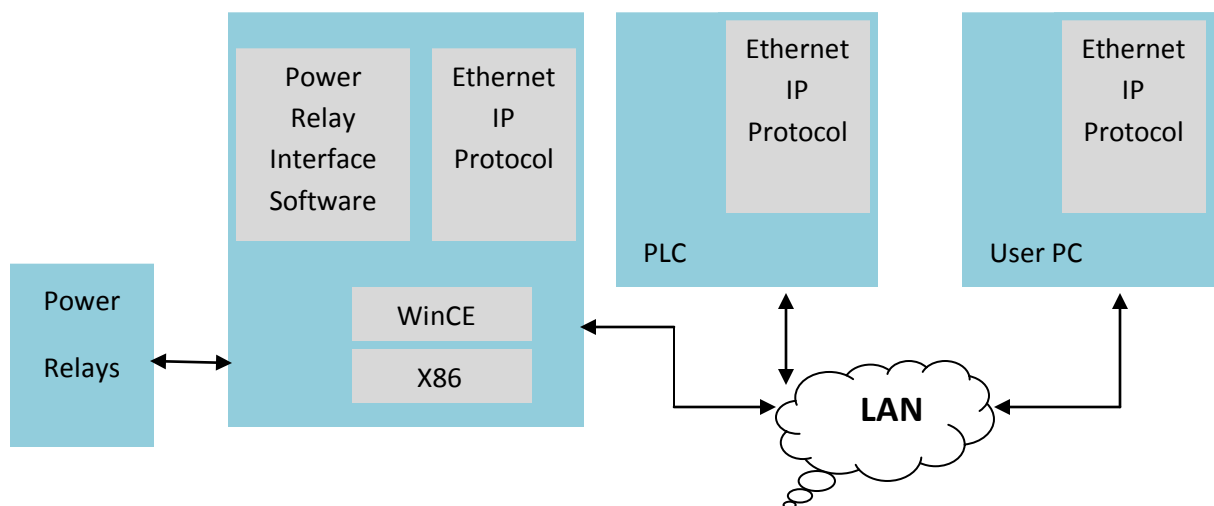
Ethernet IP protocol porting

Project Objective:

To port windows based Ethernet IP protocol to Windows CE 5.0

Approach:

Protocol documentation was studied. Existing protocol code was analyzed. Source code was ported by making changes for system level calls. APIs were provided to integrate protocol with other Windows CE applications. Appropriate modifications were done to Windows CE image for the applications.



Challenges:

Real time performance was achieved by setting appropriate thread priorities. Error checks were added to ensure integrity of data and commands.

Tools and Platforms:

Platform Builder 5.0

eVC++ 4.0

Efforts: 4 person months