

iTechLCD API specifications

Project Name: WatchDog

Revision: 1.0

December 8, 2010



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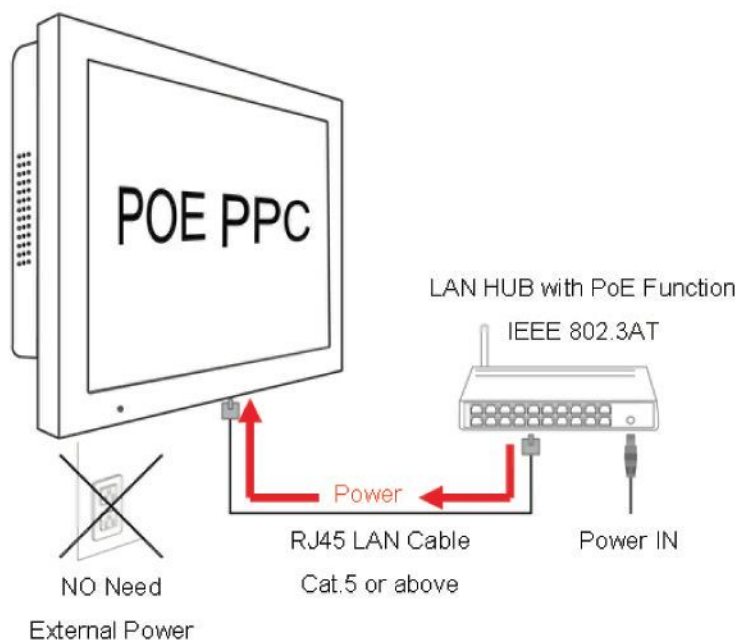
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Revision History

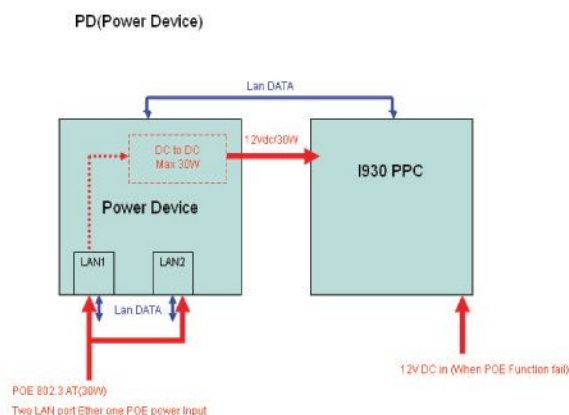
Revision	Author	Date	Description
1.0	Ripley Huang	Dec 8, 2010	1. Initial draft
1.1	Cage Hsu	Dec 14, 2010	1. Add PoE User Guide

PoE Guide

Power over Ethernet (PoE) is a technology that transfers power to device via LAN over Ethernet. It can be applied to some devices like IP-phone, web-cam that are not easy to install with power cable. It can be operated without changing cable structure of Ethernet.



PD(Power Device)



IEEE 802.3AF : The PoE standard provides 48V DC, up to 15.4 W of DC power and 400 mA to each device under LANs, standard of which are Cat. 3 or Cat. 5.

IEEE 802.3AT : The PoE standard provides 56V DC, up to 25 W of DC power and 560 mA to each device under LANs, standard of which is Cat. 5 or above.

1. General Description

1.1 Introduction

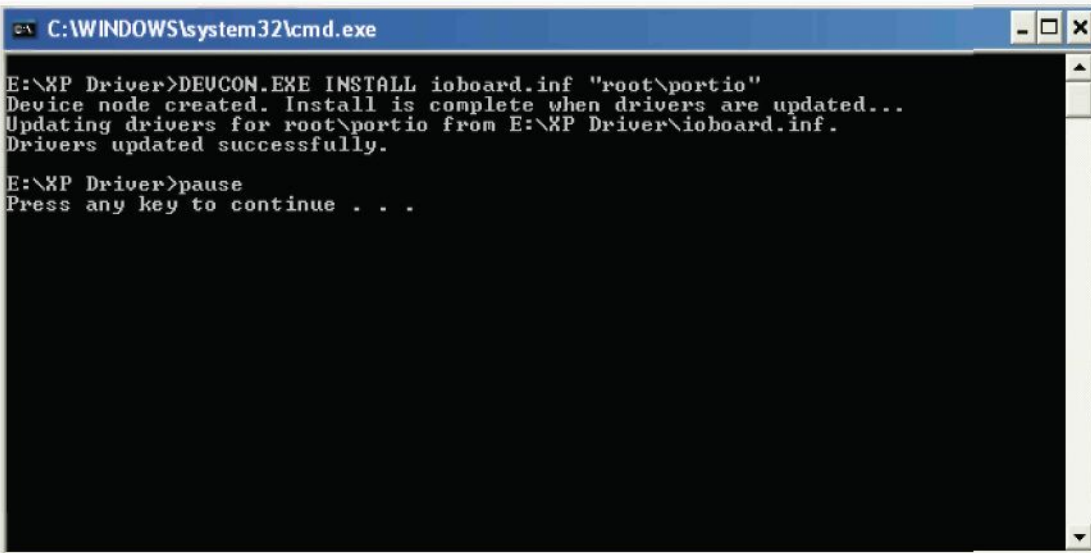
The Drivers and API provide the feature to control the WatchDog of EC in Windows XP.

2.Driver

2.1 Install WdgEC Driver

The drivers are for Windows XP. Please double click install.bat in WatchDog directories to start install.

When the drivers are successfully installed, you can see "**Drivers Updated successfully**" message in the dos prompt.



```
C:\WINDOWS\system32\cmd.exe
E:\XP Driver>DEUCON.EXE INSTALL ioboard.inf "root\portio"
Device node created. Install is complete when drivers are updated...
Updating drivers for root\portio from E:\XP Driver\ioboard.inf.
Drivers updated successfully.
E:\XP Driver>pause
Press any key to continue . . .
```

And "**WMWDG**" devices are also added in the **Device Manger** under "**System devices**"

Warning: It is important that only one **WMWDG** devices can appear in Device Manager.

3.API Function

3.1 Code Project Setting

To Get and Set the EC, dll, lib and h files are provided to develop the Application.

IoBoardDll.lib	Library
IoBoardDll.dll	Dynamic Library
IoBoardDll.h	Header File

1. Include “IoBoardDll.h” in the project.
2. Add “IoBoardDll.lib” into project Link.
3. Put “IoBoardDll.dll” in the same path with application or into “windows “directory.

3.2 IoBoardDll.h File Reference:

Defines

```
#define IOBOARD_API extern "C" __declspec(dllimport)
```

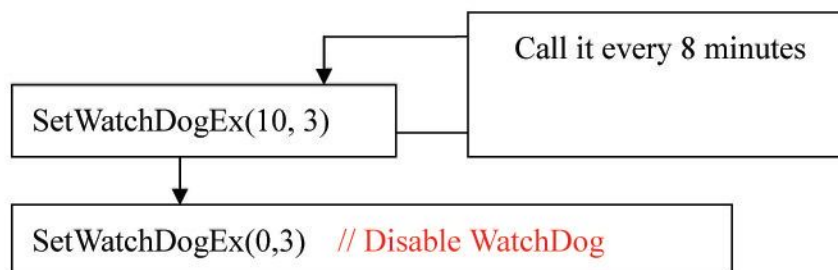
Functions

```
IOBOARD_API int SetWatchDogEx(WORD nTimer,WORD nCounter);
```

3.3 Function Procedure:

3.3.1 WatchDog Function Block

In this example, it set watchdog to minute mode, and set counter to 10 minutes. To avoid watchdog reboot the system, application sets counter to 10 every 8 minutes.



3.4 Function Name:

3.4.1 SetWatchDogEx(void);

The SetWatchDogEx() all in one Function provides the interface to set the counter or disable the WatchDog.

The Ex function includes WMOpen and WMClose, so open

```

IOBOARD_API int SetWatchDogEx(
WORD nTimer,
WORD nCounter);
  
```

Parameters

nTime:

Watch Dog Timer Time-out value.

Set a non-zero value causes the counter to load the value to Watch Dog Counter and start counting down.

00h: Time-out Disable.

01h: Time-out occurs after 1 minute

02h: Time-out occurs after 2 minutes

.....
0Ah: Time-out occurs after 10 minutes

nCounter:

Select WatchDog count mode.

3: Minute Mode.

Return Value

The function returns TRUE if it is successful set the WatchDog, and FALSE otherwise.

Requirements

Header: Declared in IoBoardDll.h