
Using the ICPDAS I/O card DLL in VC++.NET2005

This document describes how to use the ICPDAS I/O card DLL file in a VC++.NET2005 application.

[Install DLL driver]

In the past, ICPDAS has provided the relevant DLL files for various I/O cards for users to drive I/O cards in Microsoft Visual C++, Visual Basic, Borland C++ builder and Delphi. By following the instructions in this document, it will be possible to use the DLLs in a VC++.NET2005 application.

The following instructions will use the PISO-DIO Series add-on card in Win2000/XP as a demo. Before this issue, please install the DLL/OCX driver for Win2000/XP first. Download the `piso_dio_win2k_v241.exe` file from the ftp site:

ftp://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/piso-dio/dll_ocx/win2k_xp/

or from the attached CD path:

CD: \NAPDOS\PCI\PISO-DIO\DLL_OCX\Win2K_XP

[Get .h .lib files]

After installing the DLL/OCX driver, download the existing VC sample program “`dll_vc6_060905.exe`” from the ftp site.

ftp://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pio-dio/dll_ocx/demo/

Decompression “`dll_vc6_060905.exe`” and you will found “`pisodio.h`” “`pisodio.lib`” in the directory.

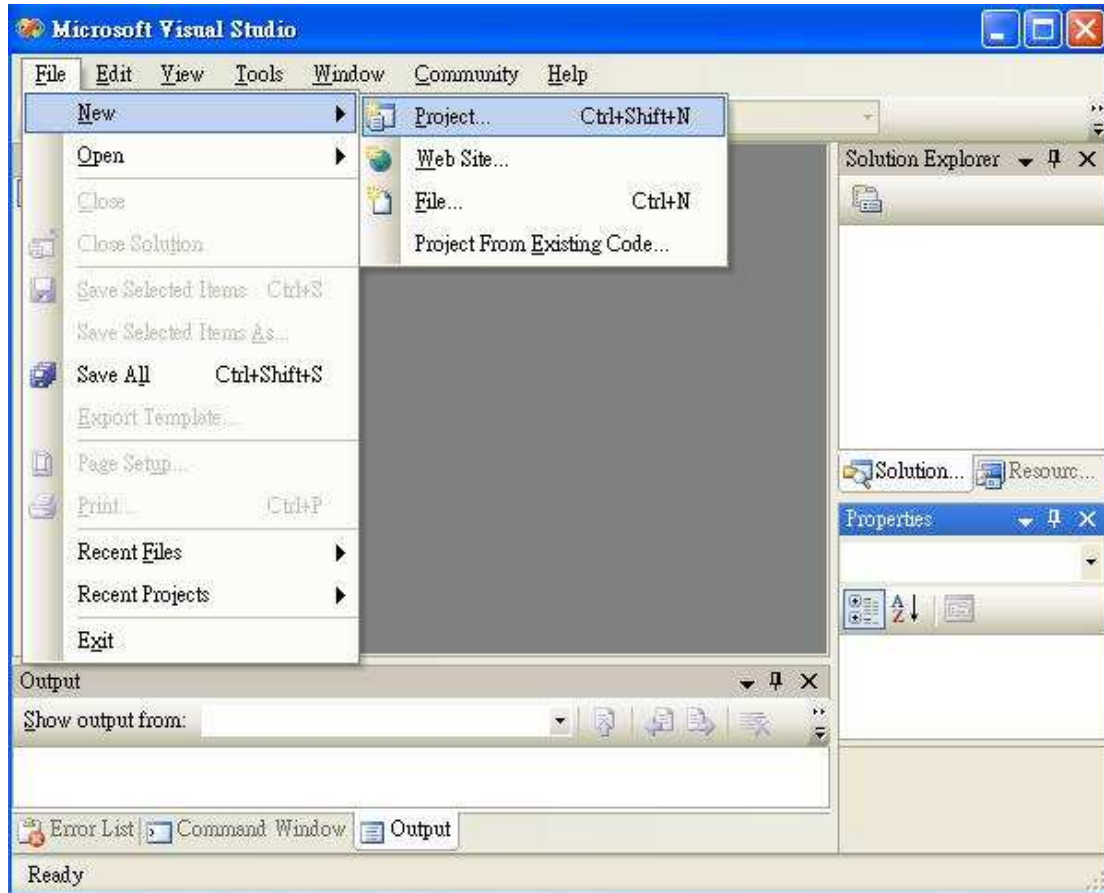
or from the attached CD path:

CD:\NAPDOS\PCI\PISO-DIO\DLL_OCX\Demo

[Add new VC++.NET2005 project and include .h .lib files]

Step A :

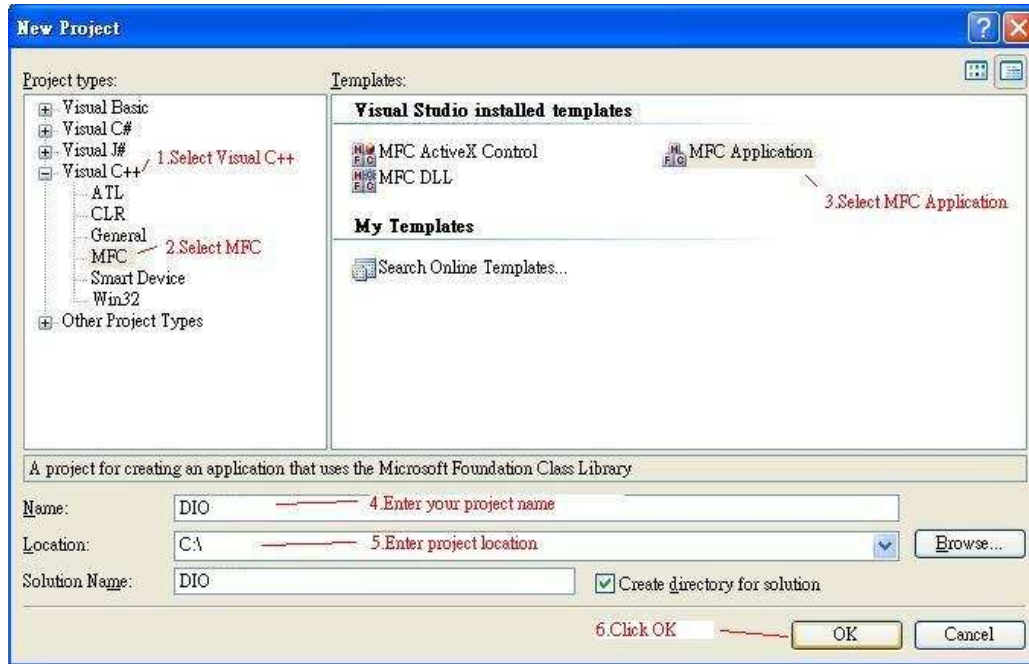
First of all please open Microsoft Visual Studio 2005 and select File->New->Project



Step B :

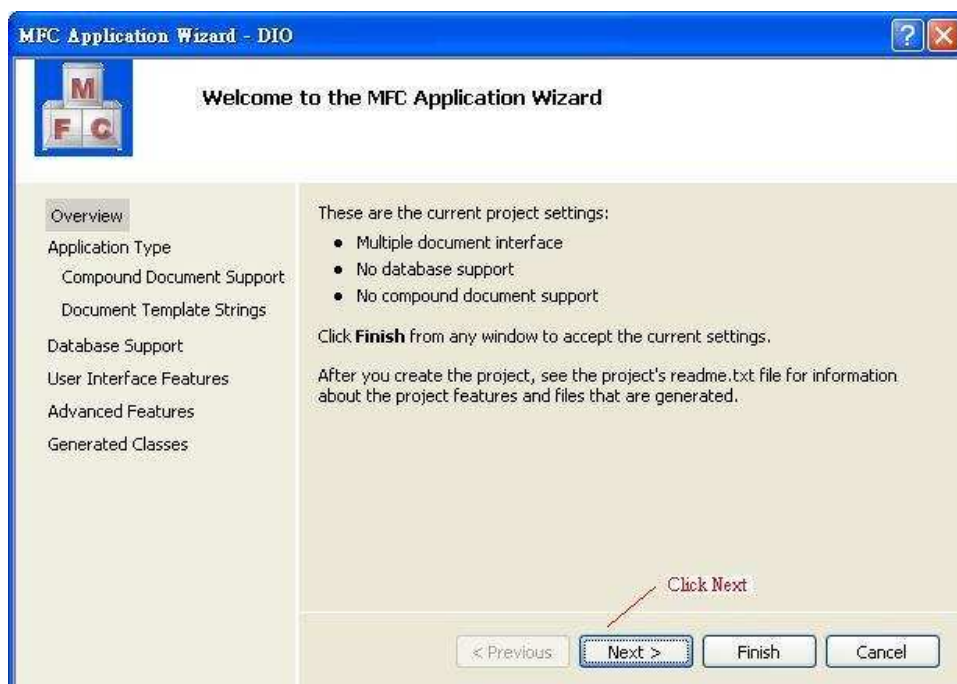
Input project name and saving location according to following order

- 1.Select Visual C++
- 2.Select MFC
- 3.Select MFC Application
- 4.Enter project name
- 5.Enter saving location
- 6.Click OK



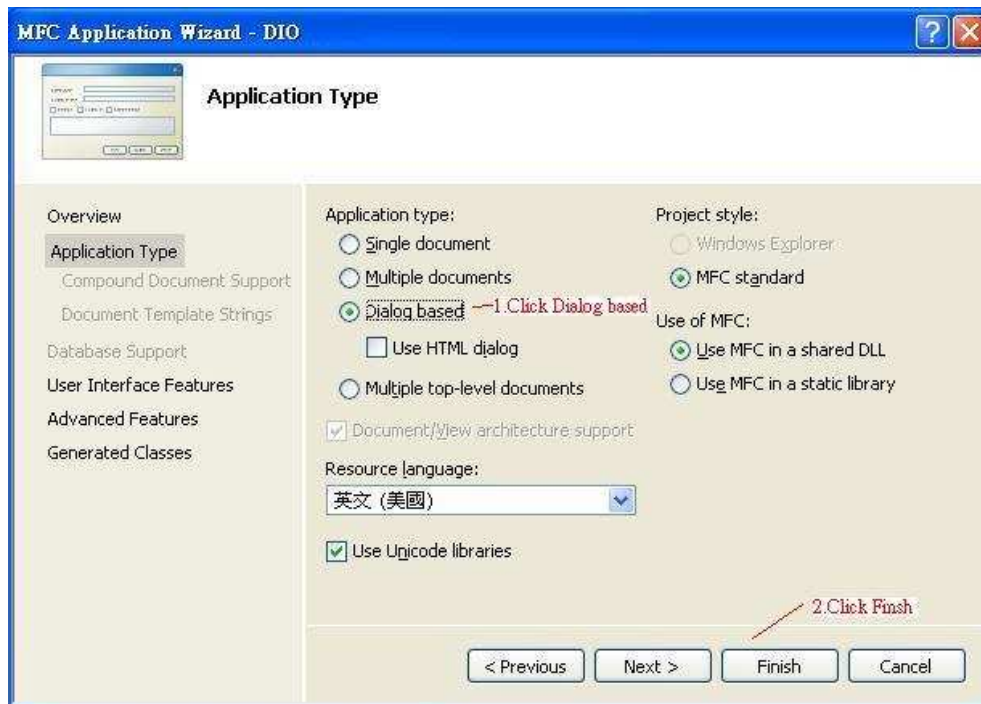
Step C :

Click Next



Step D :

1. Select Dialog based
2. Click Finish



Step E :

Copy pisodio.h pisodio.lib to project directory

[DEMO]

A. This demo will show total board of PISO-P32C32



B. Open DIODlg.cpp and enter the red code in following

```
// DIODlg.cpp : implementation file
//

#include "stdafx.h"
#include "DIO.h"
#include "DIODlg.h"
#include "pisodio.h" //include pisodio.h
#pragma comment(lib,"pisodio.lib") //include pisodio.lib

#ifdef _DEBUG
#define new DEBUG_NEW
#endif

// CAboutDlg dialog used for App About

class CAboutDlg : public CDialog
```

```

{
public:
    CAboutDlg();

// Dialog Data
    enum { IDD = IDD_ABOUTBOX };

protected:
    virtual void DoDataExchange(CDataExchange* pDX);    // DDX/DDV support

// Implementation
protected:
    DECLARE_MESSAGE_MAP()
};

CAboutDlg::CAboutDlg() : CDialog(CAboutDlg::IDD)
{
}

void CAboutDlg::DoDataExchange(CDataExchange* pDX)
{
    CDialog::DoDataExchange(pDX);
}

BEGIN_MESSAGE_MAP(CAboutDlg, CDialog)
END_MESSAGE_MAP()

// CDialog dialog

CDialog::CDialog(CWnd* pParent /*=NULL*/)
    : CDialog(CDialog::IDD, pParent)
{
    m_hIcon = AfxGetApp()->LoadIcon(IDR_MAINFRAME);
}

```

```

void CDIODlg::DoDataExchange(CDataExchange* pDX)
{
    CDialog::DoDataExchange(pDX);
}

BEGIN_MESSAGE_MAP(CDIODlg, CDialog)
    ON_WM_SYSCOMMAND()
    ON_WM_PAINT()
    ON_WM_QUERYDRAGICON()
    //}}AFX_MSG_MAP
END_MESSAGE_MAP()

// CDIODlg message handlers

BOOL CDIODlg::OnInitDialog()
{
    WORD wInitialCode, wTotalBoards_PISO_P32C32; //Set variable
    CDialog::OnInitDialog();

    // Add "About..." menu item to system menu.

    // IDM_ABOUTBOX must be in the system command range.
    ASSERT((IDM_ABOUTBOX & 0xFFFF0) == IDM_ABOUTBOX);
    ASSERT(IDM_ABOUTBOX < 0xF000);

    CMenu* pSysMenu = GetSystemMenu(FALSE);
    if (pSysMenu != NULL)
    {
        CString strAboutMenu;
        strAboutMenu.LoadString( IDS_ABOUTBOX);
        if (!strAboutMenu.IsEmpty())
        {
            pSysMenu->AppendMenu(MF_SEPARATOR);
            pSysMenu->AppendMenu(MF_STRING, IDM_ABOUTBOX, strAboutMenu);
        }
    }
}

```

```

// Set the icon for this dialog. The framework does this automatically
// when the application's main window is not a dialog
SetIcon(m_hIcon, TRUE);           // Set big icon
SetIcon(m_hIcon, FALSE);        // Set small icon

// TODO: Add extra initialization here

wInitialCode = PISODIO_DriverInit();//PISIO-DIO initial

if (wInitialCode != PISODIO_NoError) //if return code != PISODIO_NoError show message
{
    MessageBox(L"Driver initialize error!!!",L"Error",MB_ICONERROR | MB_OK);
    OnCancel();
}

//Search how many PISO-P32C32 in your system
PISODIO_SearchCard(&wTotalBoards_PISO_P32C32, PISO_P32C32);

//Set IDC_STATIC is TotalBoard
SetDlgItemInt(IDC_STATIC, wTotalBoards_PISO_P32C32,true);

return TRUE; // return TRUE unless you set the focus to a control
}

void CDIODlg::OnSysCommand(UINT nID, LPARAM lParam)
{
    if ((nID & 0xFFFF) == IDM_ABOUTBOX)
    {
        CAboutDlg dlgAbout;
        dlgAbout.DoModal();
    }
    else
    {
        CDialog::OnSysCommand(nID, lParam);
    }
}

```

```

// If you add a minimize button to your dialog, you will need the code below
// to draw the icon. For MFC applications using the document/view model,
// this is automatically done for you by the framework.

void CDIODlg::OnPaint()
{
    if (IsIconic())
    {
        CPaintDC dc(this); // device context for painting

        SendMessage(WM_ICONERASEBKGND, reinterpret_cast<WPARAM>(dc.GetSafeHdc()), 0);

        // Center icon in client rectangle
        int cxIcon = GetSystemMetrics(SM_CXICON);
        int cyIcon = GetSystemMetrics(SM_CYICON);
        CRect rect;
        GetClientRect(&rect);
        int x = (rect.Width() - cxIcon + 1) / 2;
        int y = (rect.Height() - cyIcon + 1) / 2;

        // Draw the icon
        dc.DrawIcon(x, y, m_hIcon);
    }
    else
    {
        CDialog::OnPaint();
    }
}

// The system calls this function to obtain the cursor to display while the user drags
// the minimized window.
HCURSOR CDIODlg::OnQueryDragIcon()
{
    return static_cast<HCURSOR>(m_hIcon);
}

```

C.Press F5 to execute

