



Q. What is Card ID?

A. users can set Card ID to recognize sequence of card when users use two or more same model I/O cards.

Q. What the ICP DAS products support the Card ID function?

A. The support products are listed as the table below:

Model name
PIO-D24U/D56U PEX-D24/D56
PIO-D48U/PEX-D48
PIO-D64U
PIO-D96U
PIO-D144U/D168U
PISO-C64U/P64U
PISO- P32C32U/P32A32U/P32S32WU
PISO-730U/730AU
PISO-P16R16U PEX-P8R8i/P16R16i
PISO-P8R8U
PIO-DA4U/DA8U/DA16U PISO-DA4U/DA8U/DA16U
PEX-1002L/1002H
PCI-1202LU/1202HU
PCI-1602U/1602FU
PCI-1802LU/1802HU
PCI-1800LU/1800HU
PCI-822LU/826LU



**Q. How to use CardID to access ICP DAS I/O Board on UniDAQ Driver/SDK?**

- A. The function `Ixud_GetBoardNoByCardID` (WORD \*wBoardNo,DWORD dwModelNumber,WORD wCardID) in UniDAQ is provided for getting the configuration of a board through its CardID setting on SW1.

```
Ixud_GetBoardNoByCardID(WORD *wBoardNo, DWORD dwModelNumber, WORD wCardID)
```

wBoardNo: the parameter for storing the configuration of a board

dwModelNumber: the model number

wCardID: the CardID setting on SW1

For example, if you install 16 pcs of PISO-P32C32U board on a PC and each board is set with a unique CardID from 0 to 15 on SW1, the following code may help you to get the configuration of a board through its CardID:

```
Ixud_GetboardNoByCardID(&wCard0, PISOP32C32, 0);  
Ixud_GetboardNoByCardID(&wCard1, PISOP32C32, 1);  
Ixud_GetboardNoByCardID(&wCard2, PISOP32C32, 2);  
...  
Ixud_GetboardNoByCardID(&wCard15, PISOP32C32, 15);
```

Accessing the I/O board with the variable wCardx (wCard0, wCard1 and so on).

```
Ixud_ReadDI(wCard0, ... ); //Read the DI from SW1=0  
Ixud_ReadDI(wCard1, ... ); //Read the DI from SW1=1  
Ixud_ReadDI(wCard2, ... ); //Read the DI from SW1=2  
...  
Ixud_ReadDI(wCard15, ... ); //Read the DI from SW1=15
```



**Q. How to use CardID to access ICP DAS I/O Board on old Classic Driver/SDK?**

A. You can call `_Inp` function to get CardID directly from hardware register on classic driver, or use the function for a specified model listed as below to get the Card ID:

Model Name	Register offset
PIO-D24U/D56U PEX-D24/D56	wCardID = (PIODIO_InputByte(wBase+0xcc)>>3)&0xF;
PIO-D48U/PEX-D48	wCardID = PIODIO_InputByte(wBase+0xF4)&0xF;
PIO-D64U	wCardID = PIODIO_InputByte(wBase+0xF4)&0xF;
PIO-D96U	wCardID = PIODIO_InputByte(wBase+0xFC)&0xF;
PIO-D144U/D168U	wCardID = PIODIO_InputByte (wBase+0xF0)&0xF;
PISO-C64U/P64U	wCardID = PISODIO_InputByte(wBase+0xF0)&0xF;
PISO- P32C32U/P32A32U/P32S32WU	wCardID = PISODIO_InputByte(wBase+0xD0)&0xF;
PISO-730U/730AU	wCardID = PIODIO_InputByte (wBase+0xF0)&0xF;
PISO-P16R16U PEX-P8R8i/P16R16i	wCardID = (PISODIO_InputByte(wBase+0x07)>>2)&0xF;
PISO-P8R8U	wCardID = (PISODIO_InputByte (wBase+0xF0)>>4)&0xF ;
PIO-DA4U/DA8U/DA16U PISO-DA4U/DA8U/DA16U	wCardID = PIODA_InputByte(wBase+0xD4)&0xF;
PEX-1002L/1002H	wCardID = _inp(wBar2+0x2c)&0xF;
PCI-1202LU/1202HU	wCardID = _inp(wBar3+0x04)&0xF;
PCI-1602U/1602FU	wCardID = _inp(wBar3+0x04)&0xF;
PCI-1802LU/1802HU PCI-1800LU/1800HU	wCardID = _inp(wBar3+0x04)&0xF;
PCI-822LU/826LU	Use the UniDAQ Driver/SDK to get Card ID

For example, if 16 pieces of PISO-P32C32U board are installed on computer, and each board is set with a unique CardID from 0 to 15 on switch SW1, the following code will help you to get the necessary configuration like base address and CardID. You can store the base address in an array with CardID as the index, and then you may access the board easily as below:

Dim wCardID(0 to 15) as interger

```

'//Driver Init
wRtn = PISODIO_DriverInit()

'//Search Card
PISODIO_SearchCard(wTotalBoards, PISO_P32C32)

'//Get Card ID
'Get board's Configuration Space
for i = 0 to wTotalBoards -1

```



```
///  
wRetVal = PISODIO_GetConfigAddressSpace( i, wBaseAddr, wIrq, wSubVendor, wSubDevice,  
SubAux, wSlotBus, wSlotDevice)  
  
///  
PISODIO_OutputByte wBaseAddr, 1  
  
///  
wCardIDIndex = PISODIO_InputByte(wBaseAddr + &HDO) And 0xF  
  
///  
wCardID(wCardIDIndex) = wBaseAddr  
  
Next  
  
///  
  
PISODIO_OutputByte ( wCardID(0) + &HC0), i    ///  
PISODIO_OutputByte ( wCardID(0) + &HC4), i    ///  
PISODIO_OutputByte ( wCardID(0) + &HC8), i    ///  
PISODIO_OutputByte ( wCardID(0) + &HCC), i    ///  
  
///  
PISODIO_OutputByte ( wCardID(15) + &HC0), i    ///  
PISODIO_OutputByte ( wCardID(15) + &HC4), i    ///  
PISODIO_OutputByte ( wCardID(15) + &HC8), i    ///  
PISODIO_OutputByte ( wCardID(15) + &HCC), i    ///  

```

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