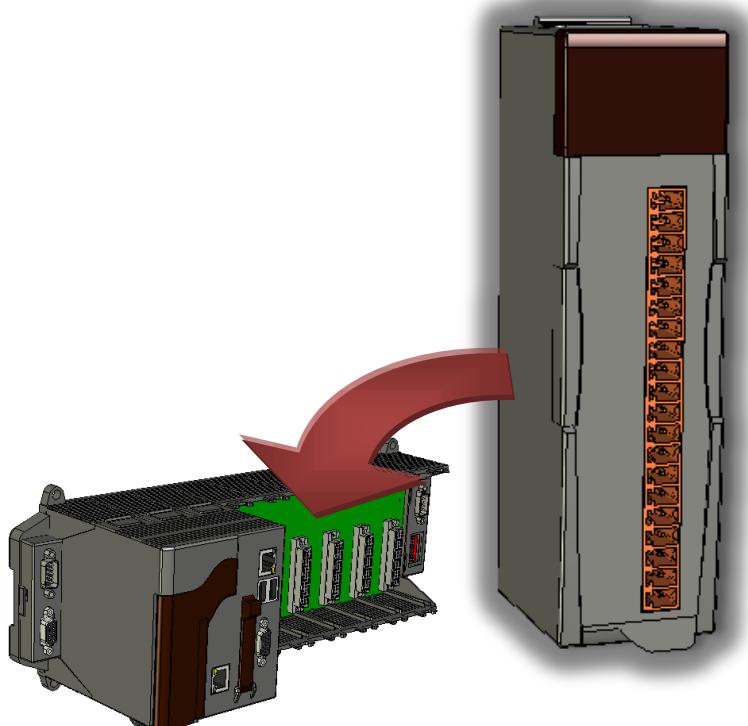


I-8024W

API Reference Manual

Version 1.11, June 2009

Service and usage information for WinPAC-8000 series



Written by Jose Dai

Edited by Anna Huang

Important Notices

Warranty

All products manufactured by ICP DAS are under warranty regarding defective materials for a period of one year, beginning from the date of delivery to the original purchaser.

Warning

ICP DAS assumes no liability for any damage resulting from the use of this product.ICP DAS reserves the right to change this manual at any time without notice.The information furnished by ICP DAS is believed to be accurate and reliable.However, no responsibility is assumed by ICP DAS for its use, not for any infringements of patents or other rights of third parties resulting from its use.

Copyright

Copyright @ 2009 by ICP DAS Co., Ltd.All rights are reserved.

Trademark

The names used for identification only may be registered trademarks of their respective companies.

TABLE OF CONTENTS

The following functions are part of I-8024W API:

1.	pac_i8024W_Initial	4
2.	pac_i8024W_VoltageOut.....	5
3.	pac_i8024W_CurrentOut.....	7
4.	pac_i8024W_VoltageOut_Hex.....	9
5.	pac_i8024W_CurrentOut_Hex	11

1. PAC_I8024W_INITIAL

This function initializes the module I-8024W in the specified slot. You must implement this function once before you try to use the other I-8024W functions.

Syntax

```
short pac_i8024W_Initial (
    int slot
);
```

Parameter

slot [in]:

Specifies the slot of WinPAC-8000 in which the I-8024 plugged (Range: 1 to 7).

Return Values

None

Examples

[C++]

```
int slot = 1;
pac_i8024W_Initial (slot);
//The I-8024W is initialized in the slot 1.
//Please plugs the I-8024W card into the slot 1 before initialization.
```

[C#]

```
int slot = 1;
pac_i8024W_Initial (slot);
```

2. PAC_I8024W_VOLTAGEOUT

This function makes I-8024W modules to output the voltage of specified floating-point value in the specified channel and slot in the WinPAC-8000 system.

Syntax

```
void pac_i8024W_VoltageOut (
    int slot,
    int ch,
    float data
);
```

Parameter

slot [in]

Specifies the slot of WinPAC-8000 in which the I-8024W plugged (Range: 1 to 7).

ch [in]

Specifies the channel from which I-8024W outputs (Range: 0 to 3).

data [in]

Specifies the analog output value (Voltage range: -10 ~ +10V).

Return Values

None

Examples

[C++]

```
int slot = 1, ch = 0;
float data = 3.0f;
pac_i8024W_VoltageOut (slot, ch, data);
//The I-8024W module outputs 3.0V voltage from the channel 0.
```

[C#]

```
int slot = 1, ch = 0;  
float data = 3.0f;  
pac_i8024W_VoltageOut (slot, ch, data);
```

3. PAC_I8024W_CURRENTOUT

This function makes I-8024W modules to output the current of specified floating-point value in the specified channel and slot in the WinPAC-8000 system.

Syntax

```
void pac_i8024W_CurrentOut (
    int slot,
    int ch,
    float data
);
```

Parameter

slot [in]

Specifies the slot of WinPAC-8000 in which the I-8024 plugged (Range: 1 to 7).

ch [in]

Specifies the channel from which I-8024W outputs (Range: 0 to 3).

data [in]

Specifies the analog output value (Current range: 0 ~ + 20 mA).

Return Values

None

Examples

[C++]

```
int slot = 1, ch = 0;
float data= 10.0f;
pac_i8024W_CurrentOut (slot, ch, data);
//Output 10.0mA current from the channel 0 of I-8024W module.
```

[C#]

```
int slot = 1, ch = 0;  
float data = 10.0f;  
pac_i8024W_CurrentOut(slot, ch, data);
```

4. PAC_I8024W_VOLTAGEOUT_HEX

This function makes I-8024W modules to output the specified voltage value in HEX format in the specified channel and slot in the WinPAC-8000 system.

Syntax

```
void pac_i8024W_VoltageOut_Hex (
    int slot,
    int ch,
    int data
);
```

Parameter

slot [in]

Specifies the slot of WinPAC-8000 in which the I-8024 plugged (Range: 1 to 7).

ch [in]

Specifies the channel from which I-8024W outputs (Range: 0 to 3).

data [in]

Specifies analog output data with hexadecimal value(Voltage range: 8000h ~ 7FFFh, that is -32768 ~ +32767, linearly maps to the range of voltage output: -10 ~ +10 V).

Return Values

None

Examples

[C++]

```
int slot = 1, ch = 0, data = 0x3FF;
pac_i8024W_VoltageOut_Hex (slot, ch, data);
//The I-8024W module outputs the 5.0V voltage from the channel 0.
```

[C#]

```
int slot = 1, ch = 0; data = 0x3FF;  
pac_i8024W_VoltageOut_Hex (slot, ch, data);
```

5. PAC_I8024W_CURRENTOUT_HEX

This function makes I-8024W modules to output the specified current value in HEX format in the specified channel and slot in the WinPAC-8000 system.

Syntax

```
void pac_i8024W_CurrentOut_Hex (
    int slot,
    int ch,
    int data
);
```

Parameter

slot [in]

Specifies the slot of WinPAC-8000 in which the I-8024 plugged (Range: 1 to 7).

ch [in]

Specifies the channel from which I-8024W outputs (Range: 0 to 3).

data [in]

Specifies analog output data with hexadecimal value (Current range: 0h ~ 7FFFh, that is 0 ~ +32767, linearly maps to the range of current output: 0. ~ +20mA).

Return Values

None

Examples

[C++]

```
int slot = 1, ch = 0; data = 0x3FF;
pac_i8024W_CurrentOut_Hex (slot, ch, data);
//Output the 10.0mA current from the channel 0 of I-8024W module.
```

[C#]

```
int slot = 1, ch = 0; data = 0x3FF;  
pac_i8024W_CurrentOut_Hex (slot, ch, data);
```