# **PWS3261 USB Port Installation guide**

D-1 USB Port Almost all the new PCs are equipped with USB ports. Some even only have USB ports and do not support serial ports anymore. PWS3261 series are equipped with USB port that could replace serial ports for download/upload applications and source codes a PC and PWS3261. As the USB port is a client version and hence could be connect to printer for printing.

# 1. Attention:

The USB download/upload function is only supported on PWS3261 series or later models. To use this function, you would need to upgrade your ADP to ADP 3.1.07 or later versions.

# 2. Cable connection:

You should have a cable( USB TYPE A-male TO USB TYPE A-male) as depicted below for USB connection between PC and PWS3261.

USB TYPE A								
USB type A male front side view of the cable								
PIN#	PIN# SIGNAL PIN# SIGNAL							
1	1 +5 3 +Data							
2 -Data 4 GND								

USB TYPE A male			USB TYPE A male		
PIN#	SIGNAL		PIN#	SIGNAL	
1	+5		1	+5	
2	-Data		2	-Data	
3	+Data		3	+Data	
4	GND		4	GND	

Figure D-14: Pin assignment of USB



Warning: the communication devices may damage by electric power. Be sure to turn off the power when connecting the USB cable to the HMI unit.

## 3. Hardware detection and USB driver installation

3-1. Connect PC to HMI with USB TYPE A-male cable. See Figure D-15



Figure D-15: USB Cable from PC to HMI

3-2. Be sure switches 7 of HMI is "ON"; then turn on the power on both HMI and PC. After system menu appears on the screen of HMI; press the "USB download" button. See Figure D-16.



Figure D-16: system menu on PWS3261

3-3. Windows on the PC will detect the new USB device and ask to install the USB driver. See Figure D17-D21







Figure D-18: Windows searches for a device driver



Figure D-19: Specify a the file directory where the device driver is stored. The default is C:\HITECH\_ADP



Figure D-20: Windows searches for the drive as you specify and begin to install



Figure D-21: the USB driver is installed

D-2 Download an application from PC to HMI through USB port

The PWS3261 supports the download/upload function via USB port. You can download/upload applications and source codes on PC or HMI through the USB port. the setup steps are as follow:

# 1. Press "USB Download" on system menu

1-1. Connect the USB type A male communications cable between PC and HMI.

1-2. Be sure DIP-SW No 7 is "on" then turn on the power on HMI and press the "USB Download" button on system menu. The PWS3261 displays "waiting for Downloading" and is ready to receive a download. See Figure D-22.

	System Menu	Run		
Download Application	Configure			
Copy Ap Waiting for downloading		librate		
Upload Ap		Download		
Download Source code	Copy Recipes	USB Upload		
Upload Source code	Upload Recipes	Exit		
Download / Upload / Copy port : COM1 PLC communication port : COM2				

Figure D-22: the screen of "waiting for Downloading"

# 2. Compile the application and select "USB" on Transmission setup box

- 2-1. Before downloading, be sure to compile your application by choosing "compile" from the "application" menu.
- 2-2. From ADP, select "options" > "Transmission setup" to specify the computer's USB port for the downloading operation, See Figure D-23.

Transmission Setup	×
PC Port	ок
С СОМ 3 С СОМ 4 С USB	Cancel

Figure D-23: Select "USB" port for download

# 3. Downloading "Firmware and application" or "application"

- 3-1. If you have already compiled your application, then select "Download Firmware and application" or "Download application" from the "application" menu. The download operation will start immediately. See Figure D-24
- 3-2. During Downloading; the PC and HMI both display their progress. See Figure D25-D29



Figure D-24:"Download Firmware and application

"from "application" menu of ADP

- 1. "Download Firmware and Application" à It's suitable for first time download firmware and application or change the system parameters. it takes longer than "Download Application". (Ex: Change PLC.....)
  - 2. "Download Application" à It is suitable for subsequent changes on the screens in applications.

Tra	nsmission
	Attempting to link the PWS via the USB
	Cancel

Figure D-25: ADP is trying to establish a connection

to the HMI via USB port.
Transmission
Erasing flash memory
Cancel

Figure D-26: ADP shows "Erasing flash memory ...."

Ti	ransmission
	Download percentage 55%
	Cancel

Figure D-27: ADP displays the percentage of completion.

	System Menu	_	
Download Application	Configure	Run	
Сору Ар	Erasing flash memory	librate	
Upload Ap		Download	
Download Source code	Copy Recipes	USB Upload	
Upload Source code	Upload Recipes	Exit	
Download / Upload / Copy p	ort: COM1 PLC comm	unication port : COM2	



Download Application	System Menu Configure	Run		
Сору Ар	ogramming firmware memory	librate		
Upload Ap		Download		
Download Source code	Copy Recipes	USB Upload		
Upload Source code	Upload Recipes	Exit		
Download / Upload / Copy port : COM1 PLC communication port : COM2				

Figure D-29: Progress status of Programming the HMI

## 4. Download completed

The different messages shown on PC and HMI when download is successful. See Figure D30-D31  $_{\circ}$ 

T	ransmission
	Download application completed !
	ОК

Figure D-30: ADP displays download successful.



Download / Upload / Copy port : COM1 PLC communication port : COM2

Figure D-31: HMI displays download successful.

If your OS is Windows 2000, it will popup a warning message box. It is normal and you could just ignore it but closing the box.

#### 5. Error message

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In case of an error message appear, please check your USB setting or cable connection. See Figure D32-D33.

Transmission	
Failed to create USB connection.	
ОК	

Figure D-32: ADP shows connection failure



Download / Upload / Copy port : COM1 PLC communication port : COM2

Figure D-33: The HMI shows communication time out

D-3 Upload application from HMI to PC through The PWS3261 supports download/upload function via USB port. You can easy to save application program and source codes into PC or HMI for backup use via USB port:

You can upload a program from the HMI to the PC; please choose "USB upload" from application menu. ADP will save the program as  $*.AP1 \cdot and *.AP2$  in your PC. Set steps as follow:

# 1. Press "USB Upload" on system menu

- 1. Connect the USB type A male communications cable between PC and HMI.
- Be sure DIP-SW No 7 is "on" then turn on the power on HMI and press the "USB Upload" button on system menu. The PWS3261 displays "waiting for Uploading" and is ready to receive a upload. See Figure D-34.



Download / Upload / Copy port : COM1 PLC communication port : COM2

Figure D-34: the screen of "waiting for Uploading"

#### 2. To select "USB" on Transmission setup box

From ADP, select "options" > "Transmission setup" to specify the computer's USB port for the uploading operation.

#### 3. Execute Upload application

If choose "Upload application" from the "File" menu. You should type the file name and directory. the uploading operation starts immediately. this program exists as an execution file named " \*\*.AP1" See Figure D35-D36

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<u>S</u>	ave					66
S	lave <u>A</u> s					
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F	rinter S	Setup				
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Ī	<u>)</u> ownlo	ad Appi	lication F	rom		
τ	Jpload	Recipes				
Ι	)ownlo	ad Reci	pes			
Ι	)ownlo	ad Sour	ce			
U	Jpload	Source.				
E	l <u>x</u> it					

Figure D-35:"Upload Application" in "File" menu of ADP

Save As					? ×
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I					
File <u>n</u> ame:	q1				<u>S</u> ave
Save as <u>t</u> ype:	Firmware Files (*.AP1)		•		Cancel

Figure D-36: PC requested for file name and directory

## 4. Upload completed

The different message shown on PC and HMI when upload is successful. See Figure D37-D38



Figure D-37: ADP displays upload successful



Download / Upload / Copy port : COM1

PLC communication port : COM2

Figure D-38: HMI displays upload successful



If your OS is Windows 2000, it will popup a warning message box. It is normal and you could just ignore it but closing the box.

D-4

chine Interface

Download application from PC to HMI through

Hitech Electronics Corp.

From your PC\_download the program \*\*\*.AP1/\*\*\*.AP2 to the HMI. Select "Download Application Form" from "File" menu. Do not forget DIP SW setting and "USB" Transmission setup before download.

D-5 Download/ Upload source codes Through USB

## 1. \_\_\_Download source code

- 1-1. The USB cable connect way, DIP SW setting and USB transmission setup are same as previous.
- 1-2. Select "Download source..." from "File "menu of ADP and give file name and directory.

<u>File</u> <u>E</u> dit	<u>V</u> iew	Screen	Draw	Object	Library
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<u>O</u> pen				-	
Close					
<u>S</u> ave					66
Save <u>A</u> s.				- 1	
Print					
Printer S	etup				
Upload I	Applica	tion			
Downlos	ad Appl	lication F	rom		
Upload H	Recipes	·			
Downlos	ad Reci	pes			
Downlos	ad Sour	ce			
Upload S	Source.				
Exit					

Figure D-39:"Download Source..." in "File" menu of ADP

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Figure D-40: PC requested for file name and directory

#### 2. Upload source code

- 2-1. The USB cable connect way, DIP SW setting and USB transmission setup are same as previous.
- 2-2. Select "Download source..." from "File "menu of ADP and give file name and directory.



Figure D-41:"Upload Source ... " in "File" menu of ADP

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Figure D-42: PC requested for file name and directory