

MiniOS7 Utility User Manual Version 1.1

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Warranty

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1.Introduction to MiniOS7 Utility

What is MiniOS7 Utility?

MiniOS7 Utility is a tool for configuring, uploading files to all products embedded with ICP DAS MiniOS7.

Key features

Supported connection ways

- COM Port Connection
- Ethernet UDP & TCP Connection

Maintenance

- Upload file(s)
- Update MiniOS7 image
- Delete file(s)

Configure

- Date & Time
- IP Address
- COM port

Check

Product information

Supported products

- 7188XA
- 7188XB
- 7188XC
- 7188EX/7186EX series
- All I-8000/iPAC-8000 series
- iView100
- ET-6000/ET-7000 series
- G4500

2. Quick Start

Get the software

• From CD-ROM

Go to CD\8000\Napdos\MiniOS7\Utility\

• From Website

Go to ICPDAS website. <u>ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/minios7/utility/minios7_ut</u> <u>ility/</u>

Installation

The following steps help you quickly install *MiniOS7 Utility*.

Step 1.

When you double click on the installation file MiniOS_Utility_Vxxx.exe, you should see a dialog like below.



Step 2. Click on Next

🚏 Setup - [Mini0S7 Utility Ver 3.11]
Select Destination Location Where should [MiniOS7 Utility Ver 3.11] be installed?
Setup will install [MiniOS7 Utility Ver 3.11] into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\ICPDAS\MiniOS7_Utility Browse
\searrow
At least 6.8 MB of free disk space is required.
< <u>B</u> ack <u>N</u> ext > Cancel

Step 3.

Click on Next

🕞 Setup - [MiniOS7 Utility Ver 3.11]	
Select Start Menu Folder Where should Setup place the program's shortcuts?	
Setup will create the program's shortcuts in the following Start Menu folder.	
To continue, click Next. If you would like to select a different folder, click Browse.	
ICPDAS\MiniOS7 Utility Ver 3.11 Browse.	
< <u>B</u> ack <u>N</u> ext >	Cancel

Step 4.

Click on Next

📳 Setup - [Mini057 Utility Ver 3.11]	_ 🗆 🗙
Select Additional Tasks Which additional tasks should be performed?	
Select the additional tasks you would like Setup to perform while installing [MiniOS7 Utility Ver 3.11], then click Next.	
Additional icons:	
Create a desktop icon	
< <u>B</u> ack <u>N</u> ext > (Cancel

Step 5.

Click on Next

得 Setup - [Mini057 Utility Ver 3.11]	
Ready to Install Setup is now ready to begin installing [MiniOS7 Utility Ver 3.11] on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:\Program Files\ICPDAS\MiniOS7_Utility	~
Start Menu folder: ICPDAS\MiniOS7 Utility Ver 3.11	
Additional tasks: Additional icons: Create a desktop icon	
<u> </u>	▼ ▶
< <u>B</u> ack	Cancel

Launch the program

If you use Windows XP, open Start menu from Windows Desktop and click [Start > All Programs > ICPDAS > MiniOS7 Utility x.xx > MiniOS7 Utility Ver x.xx] to launch.

📅 ICPDAS 🔹 🕨		MiniOS7 Utility Ver 3.11	•		Uninstall	Þ
	Г			<u> </u>	MiniOS7 Utility Ver 3.11	k
			_	_	VIK2 200	77

You can also open MiniOS7 Utility by double click the icon of MiniOS7 Utility Ver x.xx on the Windows Desktop.

Build a Connection

You must open a connection before handling *MiniOS7*. *MiniOS7 Utility* gives you a convenient way to suits with your environment. Include COM port, TCP and UDP connection.

To open a connection from connection dialog

1. Do one of following

Method 1.

Choose MenuBar > Connection, and then click new connection.

🚵 MiniOS	57 Utility Verion 3	.1.1 (build 3	1.1.1)				
🔯 File	Connection -	🕭 Command	😨 Co	onfiguration	📑 Tools 🛛	🎯 Help	•
L = =1. :	New connection	F2			•		
Look <u>i</u> n:	Last Connection	Alt+F2 ଏ		<u> </u>			
Name	<u>D</u> isconnect	Ctrl+F2	Size	Tupo		Mc	N.
Name			5128	Туре		IMIC	
📄 bin	Search	F12		File Folder		201	
📔 🚞 firmwa	ire			File Folder		201	
📗 🚞 osima	ge			File Folder		201	眉

Method 2.

Look m 🔂 MiniOS7_Utili	kγ	· • • •			Lock in: Disk A	1	• 147,541 bytes	available	0
Name bin firmware isimage ioddat load232.dl MinIOS7_Utity ivart.dl fir unins000 unins000	1KB 88KB 2,087KB 56KB 9KB 9KB 662KB	Type File Folder File Folder File Folder 網際網路捷徑 應用程式騰充 應用程式攝充 GOM媒體檔案(dat) 應用程式		No 10 10 10 10 10 10 10 10 10 10 10 10 10	Name pack.exe MBT7_168.EX autoexec.bat	ε	Size 9,732 170,252 27	2007/2/1 ⁻ 2007/1/22 2007/1/17	下午 02.
Click	Connection I	Button) *	7188E_1	JDP-1P-10.0.9.22	2 Port 23 via U	DP, 3 files(s) 160.0	J11 bytes	

Method 3.

Hotkey: F2

2. The Connection dialog includes Connection Tab that lets you set

connection parameters and **History Tab** that stores the used parameters as Connection String.

Connection Tab

The Connection Tab provides a quick way to open connection through serial port or TCP/UDP.

	🖄 Connection	
	Connection History	3
B	Serial Port	TCP/UDP G
\sim	Baud Rate: 115200	IP: 192.168.255.1
C -	Data Bit: 8	Port: 10000
E	Parity: 0(None)	
	Stop Bit: 1	
F		
	OK Cancel	Help

- To connect though serial port
- 1. Select a device (A) whose name of prefix is COM##, and ## is port number.
- 2. Select baud rate (B).
- 3. Select Data bit (C)
- 4. Select Parity (E)
- 5. Select Stop Bit (F)
- 6. Finally click OK button to open a new connection or cancel to close dialog.

When you click the ComboBox(A) of device, MiniOS7 Utility will show all of device from PC that includes COM Port, TCP and UDP. By default, MiniOS7 is set to 115200,8,N,1.

- To connect though the Ethernet
- 1. Select a device whose name is TCP or UDP.
- 2. Set IP address (G)
- 3. Set Port Number (H) to 23 if connect through UDP otherwise 10000.

2	Connection	
Co	nnection History	
	COM7 COM8 COM9 COM10 COM11 COM12 TCP UDP Parity: 0(None) ▼ Stop Bit: 1	TCP/UDP IP: 192.168.255.1 Port: 10000
	OK Cancel	Help

History Tab

You can also open connection from the history list. The MiniOS7 Utility saves Connection String to the history list automatically after you open connection from Connection Tab. It opens a new connection when you double click one of history list or click OK button after one of list is selected.

🚵 Connection		_ 🗆 🗵
Connection History	\searrow	
TCP,10.0.9.199,10000 COM2,115200,8,N,1 UDP,10.0.8.129,23 UDP,10.0.9.222,23 TCP,10.0.8.129,10000 UDP,192.168.0.33,23		
OK	Cancel	Help

To open a connection from search dialog



MiniOS7 Search Dialog searches all of MiniOS7-embedded devices that support TCP/UDP or COM Port. The Search Dialog consists of ToolBar (A), Search Listbox (B) and Status Bar (C) and describes each as follows:

MiniO. A n					
<u>Search Options</u>	Connect Clear	IP setting <u>H</u> elp	E <u>x</u> it		
Type B	IP/Port	Name	Alias	Mask	Gate 🔺
TCP Broad	10.0.9.201	7188E4	N/A	255.255.255.0	10.0.
TCP BroadCast	10.0.9.200	7188E5		255.255.255.0	10.0.
UDP Poll	10.0.9.237	i8K_UDP		255.255.255.0	10.0.
Search done.					

ToolBar (A)

The Toolbar contains many functions, such as

- 1. Search button: for start or stop scan hosts,
- 2. Options button: for alter setting of search range and poll time,
- 3. Connect button: to connect to selected item in the search list,
- 4. Clear button: to clear search list,
- 5. IP setting button: to set IP/gateway/mask/alias of devices with MiniOS7 that support TCP connection,
- 6. Exit button: to close this task.

For more detailed information about Options, please refer to [Using MiniOS7 Utility > Options] section.

Search List (B)

Search list provides each item that scan from TCP/UDP or Serial Port and display the related information about the device includes scan type, IP address or serial port, host name, alias name, mask, gateway, MAC address and its DHCP state.

■ Status Bar (C)

The Status Bar shows progress of the scan process on the bottom of Search Dialog.

■ IP Setting (D)

IP Setting Form provides you with a good way to setup your network parameters of 7188/8000 controllers. Unlink IP Address Command from MenuBar. IP Setting allows you setting your network under disconnected status.

2	IP Setting		
	Recommend	l Settings	
	IP:	10.0.9.201	
	Mask:	255.255.255.0	
	Gateway:	10.0.9.254	
	Alias:	N/A	
	DHCP Disat	ole C Enable	
	S	et Cancel	

3. Look at the Working Area

About the Working Area

The main window of *MiniOS7 Utility* is an interface to start all actions. It consists of a MenuBar and an **ToolBar** and two Panes. On the left side of working window is a **LocalPane** that helps you browse the current working directory on PC and the **RemotePane** on the right side displays the files on the *MiniOS7-equipped* device. **MenuBar** at the top of window provides many commands to use and the **ToolBar** at the bottom of the window provides frequently-used functions. You can also right click on the **LeftPane** or **RightPane** to use commands on the PopupMenu.



The MiniOS7 Utility main window contains the following options

- Local Pane (A)
- Remote Pane (B)
- MenuBar (C)
- Toolbar (D)

- Current working directory on PC (E)
- Current working disk and available size on device (F)
- The status icon (connected or disconnected) (G)

■ Some of useful information about *MiniOS7*, include prompt,

connection type, file counts and the total amount of file size. (H)

Using MenuBar

The MiniOS7 Utility MenuBar contains most of the commands that handles MiniOS7 on the remote device. Some of menu items are hidden when MiniOS7 Utility not connected. The MenuBar contains the following options.



File

Open the file menu containing file function including upgrade *MiniOS7* Image, Hot list and Exit.

2	🖄 Mini057 Utility Verion 3.1.1 (build 3.1.1.1)								
	🔯 File 🌔 Connection 👻 🚸 Command 🛐 Configuration 📑 Tools 🛷 Help 👻								
	Update Mini	OS7 Image		- 🧿 🤞) 🦻				
	Hot List	Ctrl+D							
	Exit	Alt+Y	Size	Туре		M 🔺			
		ALLTA	1	File Folder		20			

Connection

Open the connection menu which contains the connection functions including New connection, Last Connection, Disconnect and Search. You can open or close connection here.

🚵 Mini057 Utility Verion 3.1.1 (build 3.1.1.1)							
🔯 File	🜔 Connection 🝷 🚸 Command	🛐 Configuration 📑 Tools 🥔 Help 🗸					
L = =	New connection F2						
Look <u>i</u> n:	Last Connection Alt+F2	🖸 🔽 🗁					
News	Disconnect Ctrl+F2						
Name	L	Size Type Mi					
📄 bin	Search F12	File Folder 20					
ll 👝 .		en e u e e e					

Command

🚵 MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)						
🔯 File 🌔 Connection 👻	🚸 Command 🛐 Co	onfiguration 📑 Tools	s 🥔 Help 👻			
Look in: 🛅 MiniOS7_Utili	DISKTOOL F6	🖸 🥝 🦻 🖻				
Name	Refresh F9 OS Type	Туре	Modif			
🛅 bin		File Folder	2007/			
🚞 firmware	Pack Disk	File Folder	2007/			
📄 osimage	Erase Disk	File Folder	2007/			
💽 icpdas	Reset F4	網際網路捷徑	2007/			
	00/20		2007			

Open the command menu that contains the useful functions that handles MiniOS7 on the remote device including Upload, DiskTool, Refresh, OS Type, Pack, Erase Disk and Reset.

Configuration

MiniOS7 Utility Verion 3.1.	L (build 3.1	.1.1)		
🔯 File 🌔 Connection 👻 🚸	Command	Configur	ation 📑 Tools	🎯 Help 👻
Look in: 🛅 MiniOS7_Utility		Options		
		DateTime	2	
Name		IP Addre	ss	Modif
🛅 bin		COM Por	t baud rate	2007/
📄 firmware		File F	older	2007/
📄 osimage		File F	older	2007/
li condas		1KB 網際	網路捷徑	2007

Open the configuration menu where you can customize the system options of MiniOS7 Utility, the DateTime, IP Address, COM port baud rate of MiniOS7 on the remote device.

Tools

🖄 MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)							
🔯 File 🌔 Connection 👻 🚸 Co	ommand 😴 Co	onfiguration		; 🥔 Help	-		
Look jn: 🛅 MiniOS7_Utility	- 3 🕫	7188 7188 7188	EU				
Name	Size	Туре	/100	C	i o		
🛅 bin		File Folder	Send	232			
🚞 firmware		File Folder	Send	TCP	🕒 -		
🚞 osimage		File Folder	VxCo	mm Utility			
💽 icpdas	1KB	網際網路損	Cons	ole F1			
🔊 load232.dll	88KB	應用程式提	Cons	ole FI			
MiniOS7 ∐tilitv	2 087KB	應用程式		2007	7,		

Open the tools menu that contains familiar external tools including 7188xw.exe, 7188eu.exe, 7188e.exe, Send232.exe, SendTCP.exe, VxComm.exe and Console application according to your current connection.

Help					
	🖄 MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)			
	🗔 File 🌔 Connection 👻 🚸 Co	ommand 😴 Co	onfiguration 📑 Tools		
	Look jn: 🛅 MiniOS7_Utility		🔽 🔇 🕫 🖻	MiniOS7 Utility H ICP HomeP age	elp
	Name	Size	Туре	<u>A</u> bout	E
	🛅 bin		File Folder	2007/ 🟥 0	pack.e
	🛅 firmware		File Folder	2007/ 📑 1	MBT7
	📄 osimage		File Folder	2007/ 🛛 / 📇 2	autoe>

Open the help menu that contains the help options you are familiar with from windows. You can get the information about MiniOS7 Utility here.

Using ToolBar

The ToolBar contains of frequently-used buttons including Connection, Upload, DiskTool, Info, Delete, Refresh, Console, DOS and Search.



Connection(F2)	Connects to 7188/8000 controllers
Upload(F5)	Uploads file(s) which you have selected in
	the LocalPane.
🫐 DiskTool(F6)	DiskTool is a split tool to divide flash
	memory into DiskA, DiskB and Reserve
	image you want.
📑 Info(F7)	Displays information on the connected
	7188/8000 controllers such as OS

	version, COM port, Memory and so on.
🔕 Delete(F8)	Delete file(s) on the 7188/8000 controllers
🛃 Refresh(F9)	Refresh the remote file list and
	information on the Remote Pane.
🚝 Console(F10)	According to connection type, MiniOS7
	Utility will not only execute proper console
	application like 7188xw.exe 7188eu.exe
	and 7188e.exe but also pass parameters
	to it
🔤 😡 OS(F11)	Opens the console window (cmd.exe) and
	set current working directory to it.
M Search(F12)	Opens the Search window to search
	devices connected with PC by all means
	of communications (TCP/UDP/Serial).

Local Pane

The Local Pane is similar to Windows Explorer. You can change current working directory with Combobox at top of Local Pane, back to last directory with Back button ③, change to parent directory with Up button 3 or create new directory with New button 2.

🚵 MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)						
💫 File 🌔 Connection 👻 🚸 Co	ommand 🛐 Configuration 📑 Tools	🥔 Help 👻				
Look in: 📔 MiniOS7_Utility	💌 😋 🕸 🖻					
Name	Size Type	Modif I				
🔁 bin	File Folder	2007/ 🧯				
📄 firmwara	File Folder	2007.				

You should see a window similar to the one shown in below that displays files on the current working directory of your PC. You can select single or multiple file(s) on this window by click on the file you want to select or press Ctrl-Key with same time to choose more than one file.

MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)							
🔯 File 🌔 Connection 👻 🗞 Command 🛐 Configuration 📑 Tools 🥔 Help 🗸							
Look in: Config_1_Basic			🖸 😋 🌶 🖻		L		
Name		Size	Туре	Modin	No		
n 🔁 config		4KB	C Source File	2005/	@ 0		
CONFIG	N 13	ЗКВ	應用程式	2005/	2 1		
📼 CONFIG.PRJ	K .	4KB	PRJ File	2005/	2		
@config_1		1KB	組態設定値	2005/			

Remote Pane

Remote Pane works the same as Local Pane. You can change MiniOS7 working drive from ComboBox (A) on the top of Remote Pane and it displays how many bytes available on the current work drive.

The Connection status icon **(B)** located at the right upper of Remote Pane. It represents on/off status of the connection.

The Listbox (C) displays all of files on *MiniOS7-equipped* device. It differs from the Listbox of Local Pane. According to the characteristic of MiniOS7, it contains serial number of files as the first field and may exist the same file name on the second field.



Connection Status

The Remote Pane displays with grey color and a disable status icon shows at the right upper of Remote pane when MiniOS7

Utility is under its disconnected status. Otherwise the Remote Pane

displays white color and shows the connected icon

Status Bar

The Status Bar shows a lot of useful information at the bottom of Remote Pane. Such as prompt **(A)**, connection type **(B)**, how many files**(C)** and its allocated size on MiniOS7.



4. Using MiniOS7 Utility

Configuration

🖄 Mini057 Utility Verion 3.1.1 (build 3.1.1.1)							
🔯 File 🌔 Connection 👻 🚸 C	ommand [<mark>چ ک</mark>	onfiguration 📑 Tools				
Look in: 🛅 MiniOS7_Utility		Op	otions 🗟				
,		Da	iteTime				
Name		IP	Address	Modif			
🗀 bin		CC	OM Port baud rate	2007/			
🗀 firmware		_	File Folder	2007/			
🗀 osimage			File Folder	2007/			
📕 💽 iondas		1KR	網際網路捷徑	2007,			

Options



You can set options of *MiniOS7 Utility* in the Options window. Click Options menu in the **MenuBar**. The Options window contains two tabs and describes as follows.

System Options

🚵 Options		_ _ _ _ ×
System TCP/UDP Search		
Save last directory		
Open last connection		
Compress EXE files before	upload N	
	4	
Connection		
Delay Between Polls 200	ms	
Response Timeout 200		
	ms	
Refresh Retry 5	times	
Display Filter		
Filtered	(*.exe; *.b	t; *.img; *.bin)
	<u>OK</u> ancel	<u>H</u> elp

The following configuration options are available:

Save last directory	If this option is checked,
	MiniOS7 Utility changes the
	LocalPane to last directory
	that you quit before when
	MiniOS7 Utility activate.
Open last connection	If this option is checked,
	<i>MiniOS7 Utility</i> opens last
	connection that you quit
	before when MiniOS7 Utility
	activate.
Compress EXE files	If this option is checked,
before upload	MiniOS7 Utility
	compresses .EXE file
	automatically by upx.exe
	before uploading.
Connection options	The options of connection

 group provides three options to configure. 1. Delay Between Polls lets you define how long does <i>MiniOS7 Utility</i> reload information from <i>MiniOS7</i> between Polls. 2. Response Timeout lets you define within how long should MiniOS7 Utility response. 3. Refresh Retry lets you define how many times to retry.
The Display filter makes LocalPane to filter extension that you define.

• TCP/UDP Search

🚵 Options		
System TCP/UDP Search	\searrow	
Search Options		
Thread : 50	TCP Broadcast Wait:	3000 ms
Include COM port search	h UDP Poll delay:	200 ms
	n obrionady.	
Search Range		
New Edit De	lete	
10 0 9	. 1 ~ 10 0	9 254
From 10.0.9.1	To 10.0.9.254	
10.0.8.1	10.0.8.254	
		_
	<u>O</u> K <u>C</u> ancel	<u>H</u> elp

The following configuration options are available:

Thread	The bigger thread count					
	increases searching speed but					
	costs your PC performance.					
TCP Broadcast	When launching firmware on the					
Wait	device, MiniOS7 Utility uses TCP					
	to send commands and wait for					
	the response. This item defines					
	the timeout of waiting.					
UDP Poll Delay	<i>MiniOS7 Utility</i> polls each					
	7188/8000 controller according to					
	the Search Range that you					
	define.					
Include COM	Scan all COM port on your					
port search	computer. It may cost a long time					
	so turn on/off based on your					
	need.					

Search Range	It defines the subnet for UDP Poll
	to search.

Date & Time



The Date & Time Dialog provides you to change the date & time of the 7188/8000 controller. When you click Synchronize button, the *MiniOS7 Utility* synchronize the date/time information between the device and PC. It sets date/time to Controller when you click Set Button or Cancel Button to close this operation.



IP Address

IP Address dialog provides you to change MiniOS7 network settings including IP, gateway, mask and alias.

🖄 MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)						
🔯 File 🌔 Connection 👻 🚸 Comman	d 🛐 Configuration 📑 Tools 🥔 He	elp 👻				
Look in: Config_1_Basic	Options					
	DateTime					
Name	IP Address Mo	dif No				
🛃 config	COM Port baud ratio 200	D5/ 🛃				
CONFIG	13KB 應用程式 200	05/ 🖉				
🖬 CONFIG.PRJ	4KB PRJ File 200	05/ 🖉				
🕼 config_1	1KB 組態設定値 200	05/				

When you turn on the check box of Reset MiniOS7 and click Ok button, these setting then saved to EEPROM of MiniOS7 and restart MiniOS7 with new setting.

🚵 MiniOS7 IP Addres	s	
IP:	10.0.9.222	
Gateway:	10.0.9.254	
Mask:	255.255.255.0	
Alias:	7188E×1	
	🔽 Reset MiniOS	
<u> </u>	ncel	Help

COM Port Baud Rate

The **Com Port Baud Rate** dialog provides you setting each options of Com Port on your *MiniOS7.*



The Browse Tab display how many Com Ports the *MiniOS7-equipped* device has and then double click the item or click **Edit Tab** to edit Com Port settings.

1	port COM1	baud 1 1 5200	data_bits 8	parity 0(None)	stop_bits 1	
	COM2	119200	8	0(None)	1	
	COM3	9600	8	1(Even)	1	
	COM4	115200	8	0(None)	1	
	COM5	115200	8	0(None)	1	
	COM6	115200	8	0(None)	1	
	COM7	115200	8	0(None)	1	
	COM8	115200	8	0(None)	1	

The **Edit Tab** provides options for COM port setting. You can click OK Button to confirm the changes or Cancel Button to cancel these changes.

<u>🚵 S</u> e	et COM Port	Buad Rate	
	E <u>x</u> it		
Brow	vse Edit		
[– Paramters –		
	COM Port:	СОМ1	
	HS Baud Rate:	115200 💌	
	Data Bit:	8	
	Parity:	0(None)	
	Stop Bit:	1	
		1 1	
	_	<u>O</u> K. <u>C</u> ancel	

Tasks Upload File(s)

-	(-)					
	🖄 Mini057 Utility Verion 3.1.1 (build 3.1.1.1)					
	🔯 File 🌔 Connection 👻	🚸 Command	🛐 Co	nfiguration 📑 Tools	🎯 Help 🤸	•
	Lashin 🕞 Carla 1 Day	Upload	F5			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Look in: Config_1_Bas	DiskTool	F6 😽	🗖 🗿 🖻 🖻		
~~~~~		Refresh	F9			
~~~~~~	Name	OS Type		Туре	Modif	No
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	🔜 config	03 Type	_ [	C Source File	2005/	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	🗂 CONFIG	Pack Disk		應用程式	2005/	æ
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	🖻 CONFIG.PRJ	Erase Disk		PRJ File	2005/	ß
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	🕢 config_1	Reset	F4	組態設定値	2005/	
2					:	

*MiniOS7 Utility* can easily and quickly upload the file(s) to the 7188/8000 controllers.

### Do one of following to perform upload file(s).

- Choose MenuBar > Command, and then click Upload item.
- Hotkey: F5

• Click right mouse button within **Local Pane** and select upload command from the popup menu.



# Step by Step

- 1. Select file from Local Pane
- 2. Click Upload Button in the ToolBar
- 3. Loading progress appear on window
- 4. File upload completed.

V If you MiniOS7 Controller have no enough space to save file, you can compress .EXE file before uploading. For more detailed information please refer to [Using MiniOS7 Utility/Options/System Options].

## **Delete File(s)**

*MiniOS7 Utility* can delete single file or multiple files on the 7188/800 controllers. When you perform delete task, *MiniOS7* marks the file(s) what you want to delete but these files are not really removed from the flash disk of the device.

Select files to delete and do one of follows to perform delete file(s).

- Click Delete Button in the ToolBar.
- Click Delete Key when the item is **Remote Pane**.
- Hotkey: F8

Y The *MiniOS7* does not release any space before perform **Pack** command. For more information about **Pack** command, please see the next section.

For the cases of older versions of *MiniOS7* or connection through TCP, *MiniOS7 Utility* does not delete file(s) but raise a confirm dialog to ask you whether performing "Erase Disk" or not.

```
Pack
```

🖄 MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)					
🗔 File 🌔 Connection 👻	🚸 Command 🛐 Co	onfiguration 📑 Tools	🎯 Help 👻	·	
Look in: 🔂 Config_1_Bas	DISKTOOL FO	🖸 🕝 🦻 📂			
Name	Refresh F9 OS Type	Туре	Modif	No	
🔡 🔁 config		C Source File	2005/		
CONFIG	Pack Disk	應用程式	2005/		
🚾 CONFIG.PRJ	Erase Disk 🗟	PRJ File	2005/		
🧑 config_1	Reset F4	組態設定値	2005/		

The **Pack** command is an external command that performs re-allocating flash memory. MiniOS7 Utility actually does not remove the deleted file(s) on the device but mark a deleted flag on MiniOS7 File System only. So *MiniOS7* cannot release space before execute Pack command.

### • To perform Pack command, proceed as follows.

Choose MenuBar > Command, and then click Pack Item.

If your MiniOS7 does not include pack.exe, then *MiniOS7 Utility* will upload pack.exe to the RAM of *MiniOS7* and execute immediately.

You can upload pack.exe to the device from C:\ICPDAS\MiniOS7 Utility\bin\ to speed up Pack task if you execute pack.exe frequency.

### Reset



The Reset command provides you with resetting MiniOS7 for

the purpose of executing autoexec.bat or else.

### To Reset MiniOS7, do one of following:

- Choose MenuBar > command, and then click reset item.
- Hotkey: F4

• Click right mouse button within **RemotePane** and select reset command from the popup menu.

### Refresh



The Refresh command provides you with reloading file information and displaying them on Remote Pane. The information of MiniOS7 includes prompt, how many files, available spaces, etc.

### To Refresh *MiniOS7*, do one of following:

- Choose MenuBar > command, and then click refresh item.
- Click Refresh Button in the ToolBar. Seriesh(F9)
- Hotkey: F9

### **Erase Disk**

🚵 Mini057 Utility Verion 3	3.1.1 (build 3.1.1	.1)		
🗔 File 🌔 Connection 👻	🚸 Command 💈	Configuration 📑 Too	ls 🥹 Help 🗸	•
Look in: Config_1_Bas	Upload F5 DiskTool F6 Refresh F9	. 🖃 🔇 🕫 🖻		
Name	OS Type	Туре	Modif	No
🛛 🔜 config		<ul> <li>C Source File</li> </ul>	2005/	0
CONFIG	Pack Disk	應用程式	2005/	1 🗐
🗖 CONFIG.PRJ	Erase Disk	N PRJ File	2005/	2
🥑 config_1	Reset F4	い 組態設定値	2005/	

You may want to erase disk of the device when it has not enough space to upload file(s). *MiniOS7 Utility* erases all files on the current working disk of MiniOS7. Unlike **Delete file** that marks file only, **Erase Disk** wipes out flash memory of the device. So after performing **Erase Disk**, the operation of **pack.exe** is unnecessary.

#### To erase disk on *MiniOS7*, do one of following:

- Choose MenuBar > Command, and then click Erase Disk item.
- Hotkey: F6

### DiskTool

🚵 Mini057 Utility Verion 3	3.1.1 (build 3.1.1.1)	
🔀 File 🌔 Connection 👻	🔸 Command 🛐 Configuration 📑 Tools 🥔 Help 🗸	•
Lashin 🕞 Carifa 1 Day	Upload F5	
Look in: Config_1_Bas	DiskTool F6	
	Refresh F9 🕅	
Name	OS Type Type Modif	No
📃 🛃 config	C Source File 2005/	自0
CONFIG	Pack Disk 應用程式 2005,	1
🖬 CONFIG.PRJ	Erase Disk PRJ File 2005/	2
🕢 config_1	Reset F4 組態設定値 2005,	

Depending on your need, *MiniOS7* can divide the disk into four different parts.

- **Disk A**: used to store you files.
- **Disk B**: used to store you files.

• **Reserve:** reserved for programming if you want to record some data. Erase Disk, Pack Disk, Delete file(s) commands will not touch the Reserved area.

• **OS**: used to store **MiniOS7** Image

### To open DiskTool dialog, do one of following:

- Choose MenuBar > Command and then click DiskTool
- Click DiskTool in the Toolbar
- Hotkey: F6

🚵 Mini057 Disk	Information				
At Reserved Elas	h Segments <u>H</u> elp				
Disk A: 3	20 KB	- (	A) Isk B: [128]	KB	
-t-			-1 -		
	•	ı ı	ļ.	ı ı	
Disk A	Disk B	Reserv			
		<u>o</u> k	<u>C</u> ancel		

- You can choose the thumb of slider (A) to split DiskA and DiskB and choose Set Reserved Flash Segments (B) to allocate Reserve Image.
- In general, DiskA must be greater and equal than one block (64K).
- When the dialog of Set Reversed Flash Segments was opened, you can enter an integer value that you want to allocate.

Set Reserved	l Flash Seg	ments :	×
Blocks(0-6)	$\searrow$		
1			
	ОК	Cancel	

### Hot List

	🚵 Mini057 Utility V	erion 3.1.1 (	(build 3.1.1.1)			
	🗔 File 🕨 Connec	tion 👻 🚸 C	ommand 🛐 Co	onfiguration 📑 T	ools 🮯 Help	-
	Update MiniOS7 I	mage		🗕 🕝 🏚 🖻		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Hot List	Ctrl+D				
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- Exit	Alt+X	Size	Туре	Modif	No
~~~~~		AILTA	4KB	C Source File	2005/	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CONFIG		13KB	應用程式	2005/	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	🔟 CONFIG.PRJ		4KB	PRJ File	2005/	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	🕡 config_1		1KB	組態設定値	2005/	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						

You can change or save common used directory to Hot List. If you have many projects work with same time, then Hot List is suitable for you.

To open Hot List dialog, do one of following:

- Choose MenuBar > File, and then click Hot List item.
- Hotkey: Ctrl + D

rowse Edit				_ [] ;
rowse Edit	path			
MiniOS7_Utility		ogram Files <u>\IC</u> F	PDAS\MiniOS7_Utility	
DriveC	C:A			
				<u>-</u>
<u>G</u> oto	Add	<u>E</u> dit	Delete	 Add C <u>u</u> rrent Dir
	Add	<u>E</u> dit	Delete	

1. Click on Add Current Dir button, you will see a new item append to the listbox.

2. To change current working directory, you can double click one of list item or click Goto button.

3. You can click Edit button or Delete button to modify or delete the item that you selected.

MiniOS7 Information

The MiniOS7 information provides you with useful information about MiniOS7. So you can use this information to check your MiniOS7 whether setting exactly or not.

To open MiniOS7 information dialog, do one of the following

 Click Info button in the ToolBar. ^{Info(F7)}
• Hotkey: F7

.11	category	key	value
- LocalHost	▶ Basic	ド Prompt	7188E_UDP
Basic	Basic	OS	MiniOS7_UDP
Memory	Basic	Hardware	I-7188E
Network ComPort	Basic	Build	Version 2.02 000 Jan 22 2007 10
Comport	Basic	64-bits Serial Number	5A 5A 5A 5A 5A 5A 5A 5A 5A
	Basic	Time	2007/2/8下午 02:53:27
	Basic	Init* pin	Open
	Basic	Manufacturer	01\AMD
	Basic	CPU	RDC 8820-D
	Basic	Reset by	WDT
	ComPort	COM1	115200,8,0,1
	ComPort	COM2	115200,8,0,1
	ComPort	СОМЗ	9600,8,1,1
	ComPort	COM4	115200,8,0,1
	ComPort	COM5	115200,8,0,1
	ComPort	COM6	115200,8,0,1
	ComPort	COM7	115200,8,0,1
	ComPort	COM8	115200,8,0,1
	LocalHost	OS Version	Windows XP SP2

You can mail or save information from menu on top of window.

MiniOS7 Information			
Eile Help			
mail to	Г	category	key
save as 🗟		Basic	Prompt
Exit		Basic	OS
Network		Basic	Hardwar
ComPort		Basic	Build
		Basic	64-bits S
		Basic	Time

DOS Box

The DOS box launches console window the same as you execute CMD.EXE except the working directory changes to that of MiniOS7 Utility.

To open DOS box, do one of the following

- Click DOS button in the ToolBar.
- Hotkey: F11

• Click right mouse button within **LocalPane** and select DOS command from the popup menu.



Console

The Console command helps you launching console application such as 7188xw.exe, 7188eu.exe and 7188e.exe depending on the current connection. Unlink 7188xw.exe (or 7188eu.exe, 7188e.exe) form MenuBar > Tool. The Console command opens such application and passes the parameters of current connection to it.

To open Console command, do one of the following

- Click Console button in the ToolBar. <u>E Console(F10)</u>
- Hotkey: F10

Click right mouse button within **LocalPane** and select DOS command from the popup menu.



Run / Run with parameters ...

The **Run** (or Run with parameters) command offers you a way to perform executable file from *MiniOS7.* It provides the same function as **Console** command except executes file that you selected on **RemotePane.**

To perform Run command, do the follows:

Click right mouse button within **RemotePane** and select Run (or Run with parameters) from the popup menu.

Lo	ock in: Disk A	•	381,581 byte:	s available	Į	Ģ
No	Name			Size	Modifie	ed
0🗒	F64K.bin			65,503	2005/4/22下午 05:28:0)0
@]	RAM_QC.exe	Run Run with pa Reset MiniC Erase Disk	arameters DS F4	11,572	2007/2/1 下午 04:03:1	3

The Run with parameters is the same as Run except

opening a input box to enter parameters for the executable file.

Run Parameters	×
Parameters:	
OK Cancel	

Upgrade MiniOS7 Image

To upgrade MiniOS7 image, do one of the following Method 1.

Choose MenuBar > File and then click Upgrade MiniOS7 image item. When dialog appears, choose an image file to upgrade.

🚵 Mini057 Utility Verion 3.1.1 (build 3.1.1.1)						
🔯 File	Connection	👻 🚸 Comm	and 🛐 Co	onfiguration	📑 Tools 🤞	🎯 Help 👻
Upda	te MiniOS7 Imag	je		.	b P3	
Hoti	ist C	trl+D				
- Exit		Alt+X	Size	Туре		Modif 1
EXIL		AILTA	64KB	映像檔		2006/ [

Method 2.

Choose extension with .img from Left pane and click right mouse button, then click Upgrade MiniOS7 image.

Step 1. Choose *.img

Step 2. Click right mouse button.

MiniOS7 Utility Verion 3.1.1 (build 3.1.1.1)	
🛛 🔯 File 🖒 Connection 👻 Command 💽 Configuration 🛅 Tools 🥔 Help	-
Look in: 🛅 7188ex 🔽 💽 🔇 🤣 📂	
Size Type Modif	No
2006, 8e_CR_20060608 64KB 映像檔 2006,	۵
2006, 7188e-UDP-CR 2005 1210 CH/B # 音描 2006, Upload F5	a 1
2 Upload & Execute[RAM]	2
Up <u>d</u> ate MiniOS7 Image	
DOS P11	

To upgrade *MiniOS7* Image, These are four conditions you have to consider.

• If your image file is newer than your current *MiniOS7* image and has the same OS type, then it upgrades automatically and doesn't raise any dialog.

• If your *MiniOS7* is newer than image file and has the same OS type, *MiniOS7 Utility* raises a confirm dialog and click Yes button to proceed or No button to cancel this process.



• If your image file is the same as your *MiniOS7* image and has the same OS type, *MiniOS7 Utility* raises a confirm dialog and click Yes button to proceed or No button to cancel this process.



• When your OS type is different with the image file, *MiniOS7 Utility* raises a caution dialog because different OS type may cause fatal error for 7000E or 8000 serials. Click the checkbox [I have read above message] to double confirm and Ok button to update.

Caution !!!		
>>> Different OS type! <<< Image type:[0x31] differ from OS type: [0x30] Do you want to continue?		
Update the MiniOS7		
The MiniOS7s for the 8000 series and 7188E are different. You cannot upload image files for 7188E into 8000 series.		
You cannot use the 7188, 7188X, 7188E and 8000 series modules without the MiniOS7.		
When you are updating the MiniOS7, don't power off the module, especially upload image file until the image file is completely uploaded.		
Before updating the MiniOS7, please contact to the distributer to make sure that you realy understand how to update the MiniOS7 very clear.		
I have been read above message.		
<u>DK</u> <u>Lep</u>		

OS Type



• Do the following to get MiniOS7 type information. Choose MenuBar > command, and then click OS type.

Mini057 Utility Ver 🗙
OSType : [0x20] OS Name : [8000-40M]
ОК

Please refer to Appendix B: OS Type Mapping Table.

Appendix A: Tools

■ 7188xw.exe

For more information, refer to CD/8000/Napdos/MiniOS7/utility/document/7188exw.htm

■ 7188e.exe

For more information, refer to CD/8000/Napdos/MiniOS7/utility/document/7188e_eng.htm

■ 7188eu.exe

7188eu.exe is a client side utility that provides essential commands. Similarly except the different way to connect with 7188xw.exe.

For more information, refer to CD/8000/Napdos/MiniOS7/utility/document/7188eu.htm

Appendix B: OS Type Mapping Table

MiniOS7 OS	MiniOS7 OS Name
Туре	
0x00	7188
0x10	7188XC
0x11	7188XA
0x12	7188XB
0x1A	7186XB
0x20	8000-40M
0x2A	C812-B847
0x21	8000E-80M
	C836 V2.1 later
0x22	8000E-80M/8KE4
	C836 V1.2
0x23	P824
0x24	C826(CAN)
0x25	C837
0x26	C829/846
0x27	C827
0x28	C832
0x30	7188E
	7188E_UDP
0x31	7186EX
0x32	7186E3-RJ45
	7186E-Bosch
0x33	H7K-NSC
0x40	lview-20M
0x42	lview-40M
0x50	8114H
	vxc114
0x51	8094H
0x60	ET6000
0x90	PISO-S400
0x92	BPLC
0xA0	PIO-PM100

Appendix C: Command set for MiniOS7

Command	Description		
LED5 pos value	Displays a HEX value in the specified position of		
	5-digit LED		
USE NVRAM	Accesses the service routine to read/write		
	from/to the NVRAM		
USE EEPROM	Accesses the service routine to read/write from/to the EEPROM		
USE FLASH	Accesses the service routine to read/write from/to the Flash Memory		
USE COM2 /option	Accesses the service routine to send/receive to/from COM2		
DATE [mm/dd/yyyy]	Sets the date of the RTC		
Time [hh:mm:ss]	Sets the time of the RTC		
MCB	Tests the current memory block		
UPLOAD	Stores the MiniOS7 image file in the SRAM of the I-7188XA(D) (this command is only used to upgrade MiniOS7)		
BIOS1	Stores the MiniOS7 image file in the Flash memory of the I-7188XA(D) (this command only used to upgrade MiniOS7)		
LOAD	Downloads the user program file to the Flash Memory of the I-7188XA(D)		
DIR [/crc]	Lists the information of all files stored in the Flash Memory of the I-7188XA(D)		
RUN fileno	Executes the file with the prescribed file number		
Filename	Executes the file with the prescribed file name		
DELETE or DEL	Deletes all files stored in the Flash Memory.		
RESET	Resets the CPU		
DIAG [option]	Performs hardware diagnostics		
BAUD baudrate	Sets a new value for the Baud Rate of COM1		
TYPE filename [/b]	Lists the contents of a file		
REP [/#] command	Repeats the execution of the same command #		

	times
RESERVE [n]	Reserve n Flash Memory sectors for a program file
LOADR	Downloads files to the SRAM
RUNR [option]	Runs the program stored in the SRAM of the I-7188XA(D) (downloaded using the LOADR command)
I/INP/IW/INPW port	Reads data from the hardware Port
O/OUTP/OW/OUT PW port value	Outputs data to the hardware Port
More	

Note: For more detailed information regarding MiniOS7, refer to CD:\Napdos\MiniOS7\document\minios7_commands_v1.2.pdf or http://ftp.icpdas.com/pub/cd/8000cd/napdos/minios7/document/minios7_com mands_v1.2.pdf