

Quick Start Guide

Web Server Module for MicroSmart PLC





Thank you for choosing an IDEC Web Server Module.

This module is compatible with the IDEC Micro3C, ONC and MicroSmart PLCs, and has four major built-in functions:

- Remote monitoring and control over an Ethernet network using WindLDR or standard SCADA software
- Remote reading and writing PLC parameters over an Ethernet network using standard IE or Netscape browser
- 1:1 communication between two PLCs over an Ethernet network
- Email messaging where predefined messages can be sent to an email address or cell phone

This Quick Start Guide will lead you through the process of configuring a Web Server Module, putting it onto an Ethernet network (as illustrated above) and using it to remotely monitor and control a PLC using WindLDR software.

Parts Check List:

Please make sure the following parts are available before proceeding to the next step.

1)			
Parts	Quantity	Notes	Check Box
Web Server Module	1	Comes with RS232 cable	
WindLDR Version 4.7	1	WindLDR 4.7 or above installed	
IDEC PLC	1	FC2A-()C, FC3A, FC4A, FC5A series	
24V DC Power Supply	1		
Cross-over Ethernet cable	1		
Standard Ethernet cable	2	Also known as Straight-thru cable	

2)

In addition to the items listed above, a static IP address and its Subnet Mask & Default Gateway are also required. An IP address needs to be assigned to the Web Server Module in order for it to communicate over the Ethernet network. **Please consult your Network Administrator for this information**. This IP Address and its Subnet Mask & Default Gateway will be called **IDEC Web Server Module IP Address**. You will need this information in **Step 3F** of this Quick Start Guide. Please do NOT continue if this information is not available.

IP Address:	
Subnet Mask:	
Default Gateway:	

This is What You Will Be Setting Up:

Step 1: Connect the Web Server Module

This walks you through the process of connecting the Web Server Module to your PC.

Step 2: Configure the PC

This describes how your PC needs to be configured to communicate with the Web Server Module.

Step 3: Configure the Web Server Module

This takes you through the process of how to configure the Web Server Module to communicate with the WindLDR software.

Step 4: Configure the WindLDR software

This describes the Remote Monitoring & Control function of the Web Server Module using WindLDR software.

First, make sure your PC is turned ON and the Dip Switch on the Web Server Module is in REMOTE mode. It is recommened that you should not run any other applications during this process.



In order to communicate with the Web Server Module, a **Cross-over Ethernet cable** is REQUIRED. Please ask your IT personnel for this Cross-over cable or it can be purchased at any electronics store.

A. Connect the Web Server Module to a 24V DC power supply.



B. Using the Cross-over Ethernet cable, connect one end of the cable to the RJ-45 port of the Web Server Module.



C. Connect the other end of the cable to your PC Ethernet port.



Proceed to Step 2: Configure the PC

In step 2, you will configure your computer to communicate with the Web Server Module. To do this, you will need to configure your PC network settings by assigning a static IP address to your PC.

First, find out which operating system your computer is running, such as Windows 95, 98, Millennium, 2000 or XP. Once you know which Windows operating system you are running, follow the directions in this step for your particular operating system.

If you are running: Windows 98, Windows Millennium

- A. Click the Start button, click Settings and open the Control Panel. From there, doubleclick the Network icon to open the Network screen.
- B. Select the Configuration tab and highlight the TCP/IP line for the applicable Ethernet adapter*. If the word TCP/IP appears by itself, select that line. Then, click the Properties button.

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Client for Micro 3 Com Fast Ether 3 Com TCAATD 3 IPX/SPX-comp 1 CP/IP	soft Netwo erLink XL 1 I Diagnost atible Proto	rks 0/100Mb ic TDI iccol	TX Ether	net NIC (3C9
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Description TCP/IP is the pro	tocol you u ks.	se to con	nect to the	e Internet an

*Note: Do not choose a TCP/IP entry whose name contains DUN, PPPoE, VPN or AOL.

Continued on page 5

C. Click the IP Address tab and select Specify an IP Address*.



* This is assuming your network is using a DHCP server. If your PC default setting is **Specify an IP Address**, where the IP address and Subnet Mask fields are already predefined, please note and write down these numbers before proceeding to the next step. We will refer to this as the **PC IP Address**.

You will need to revert your PC back to this IP address when you are done configuring the Web Server Module.



D. Enter the following information into the IP Address and Subnet Mask fields:

IP Address: Subnet Mask:	192.168.1.1 255.255.255.0	TCP/IP Properties		<u>? ×</u>
		Bindings DNS Contiguration An IP address con If your network do the space back the space back the space back the space back point of the point of the PAIdd etc. Submit Mee	Advanced Gatewy WNNS Cor- be advanced with the second of the second of the second of the second seco	NetBIOS Gganation IP Address ed to this computer. and then type it in . 1. . 0. K. Cancel

- E. Click the OK button. Windows may ask you for the original Windows installation disk or additional files. Supply them by pointing to the correct file location, e.g., D:\win98, D:\win9x, C:\windows\options\cabs, etc. (This assumes that "D" is the letter of your CD-ROM drive).
- F. If Windows asks you to restart your PC, click the Yes button. If Windows does not ask you to restart, restart your computer anyway.

Proceed to Step 3: Configure the Web Server Module

If you are running: Windows 2000

- A. Click the Start button, click Settings and open the Control Panel. From there, doubleclick the Network and Dial-up Connections icon. This will display the Network screen.
- B. Double-click Local Area Connection and click the Properties button.
- **C.** Select Internet Protocol (TCP/IP) and click the Properties button.

D. Select Use the following IP address*.



* This is assuming your network is using a DHCP server. If your PC default setting is **Use the following IP address**, where the IP address, Subnet Mask and Default Gateway fields are already predefined, please note and write down these numbers before proceeding to the next step. We will refer to this as the **PC IP Address**.

PC	IP Address:
	Subnet Mask:
	Default Gateway:

You will need to revert your PC back to this IP address when you are done configuring the Web Server Module.

E. Enter the following information into the IP Address and Subnet Mask fields:

IP Address: 192.168.1.1 Subnet Mask: 255.255.255.0

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Subnet mask:	255 . 255 . 255 . 0
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-C Use the following DNS se	rver addresses:
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Alternate DNS server	· · · · · · ·
	Advanced.
	OK Cancel

F. Click the OK button to close the Internet Protocol (TCP/IP) Properties dialog box.
 G. Click the OK button again, to close the Local Area Connection Properties dialog box.

Proceed to Step 3: Configure the Web Server Module

If you are running: Windows XP

The following instructions assume you are running Windows XP's default interface. If you are using the Classic interface (where the icons and menus look like previous Windows versions), please follow the instructions for Windows 2000.

- A. Click the Start button and open the Control Panel. Double click the Network Connections icon to display the Network screen.
- B. Double-click Local Area Connection and click the Properties button.

eneral Support	
Connection	
Status:	Connected
Duration:	4 days 05:59:51
Speed:	1.0 Gbps
Activity	
	Sent — 🗾 — Received
Packets:	48,739 155,084
Properties	Disable

C. Select Internet Protocol (TCP/IP) and click the Properties button.

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Connec	t using:				
100 H	ntel(R) PR(0/1000 1	4T Mobile Co	me [Configure
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D. Select Use the following IP address*.



* This is assuming your network is using a DHCP server. If your PC default setting is **Use the following IP address**, where the IP address, Subnet Mask and Default Gateway fields are already predefined, please note and write down these numbers before proceeding to the next step. We will refer to this as **PC IP Address**.

IP Address:
Subnet Mask:
Default Gateway:

You will need to revert your PC back to this IP address when you are done configuring the Web Server Module.

Ρ



E. Enter the following information into the IP Address and Subnet Mask fields:

IP Address: Subnet Mask: 192.168.1.1 255.255.255.0

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O Obtain an IP address auton	natically
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Sybnet mask:	255 . 255 . 255 . 0
Default gateway:	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
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O Use the following DNS serv	ver addresses:
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48	

E. Click the OK button to close the Internet Protocol (TCP/IP) Properties dialog box.
F. Click the Close button to close the Local Area Connection Properties dialog box.

Proceed to Step 3: Configure the Web Server Module

A. Launch your browser (Internet Explorer or Netscape).



B. In the URL window, type **192.168.1.5** (this is the default factory IP settings for the Web Server Module), then hit **Enter**.



C. One of two Warning-Security dialog boxes will appear. Click Run/Yes to continue. (If after 30 seconds neither of these windows appear, close your browser and repeat step 3A again.)





 $\ensuremath{\textbf{D}}$. The Web Server Unit Settings dialog box will appear.

Home	Home		
Configuration	System Summ	ary	
Network	Model:	IDEC Web Server Unit	
Serial Ports	IP Address:	192.168.1.5	
Alarms	MAC Address:	00:40:9D:24:DB:C9	
Administration			
Backup/Restore			
Restore Factory Defaults			
System Information			
Reboot			
PLC Monitor			
TIDEC			
IDEC			

E. Click the Network menu.

	National Configuration			
Configuration	Basic Advanced			
Network	Select method to assim	Padrikoss		
Security	Ottain automatical	using DHCP*		
Alarma	Use the following P	Address:		
Administration	IP Address: 11	92.168.1.5 *		
Restore Factory Defaults	Subnet Wask 21	55.252.255.0 *		
System Information	Default Gateway	0.0.0		
Reboat	* Changes to DHCP IP	Address and Subnet Mar	is require a sebort to take effect	
- See manual				
	1			
TIDEC				

F. Enter your IDEC Web Server Module IP Address* here.



* The IDEC Web Server Module IP Address is a static IP address that was required in the Parts Check List section. This is an IP address you need to obtain from your Network Administrator. **Note: Please be sure to document this IP address for future reference. It is recommended that you record the IP address on a label and apply it to the module directly.**

For demonstration purposes, a random number is used here but please ONLY enter your IDEC Web Server Module IP Address, Subnet Mask and Default Gateway (leave it as 0.0.0.0 if your network does not use Default Gateway) in these fields.

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G. Click the **Save** button.

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H. Select **Reboot**. Then click the **Reboot** button.



. Close the Web Server Unit Settings dialog box and browser.

Proceed to Step 4: Configure the WindLDR software

In this step, you will revert your PC network settings to their original settings, put the Web Server Module onto the Ethernet network and configure the WindLDR software to remotely communicate with the Web Server Module.

A. Open the Internet Protocol (TCP/IP) Properties dialog box (Please refer to Step 2 if you have forgotten how to do this).

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O Obtain an IP address autor	matically
Use the following IP address	82
JP address:	192 168 1 1
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Default gateway:	
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Use the following DNS services	ver addresses:
Preferred DNS server:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Alterna DAIO	

B. Select Obtain an IP address automatically*.



* This is assuming your network is using a DHCP server. If your PC was predefined with a static IP address (refer to Step 2), then fill-in the **PC IP** Address here.

eneral	Alternate Configuration	
ou car tis cap te app	aget IP settings assigne abilty. Otherwise, you n opriate IP settings.	d automatically if your network supports eed to ask your network administrator for
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IP ad	dress:	1
Subr	et mask:	
Dela	ult gateway:	
(i) (i)	tain DNS server addres	s automatically
00	e the following DNS ser	ver addresses:
Prefe	rred DNS server:	and the second second
Alterr	ate DNS server:	
		Advanced.
		OK Can

C. Click the OK button to close the Internet Protocol (TCP/IP) Properties dialog box.
 D. Click the Close button to close the Local Area Connection Properties dialog box.

E. Change your Web Server Module setup as below.

- Using a standard RJ45 Ethernet cable, connect one end to the Web Server Module and the other end to your network hub.
- Using a second standard RJ45 Ethernet cable, connect one end to the PC Ethernet port and the other end to your network hub.
- Connect one end of the interface cable to the Web Server Module and the other end to the PLC.
- Make sure both the Web Server Module and PLC are connected to power.



F. Launch WindLDR software. Make sure you are running WindLDR version 4.7 or above. G. Select Configure → Communications.

H. Select Ethernet and click on the Setting Web Server Unit button.

C. Carlet Dest	C WILLIAM		J DK
senal Polt	* Enerved		- OK
Seria Port Settin	g		🗙 Cancel
Baud Flate:	9600	•	Default
Data Bits:	7	-	2 Heb
Parity:	Even	-	1 104
Stop Bits:	1	-	
	10	n	
5	etting Web Server Unit		
omenuication Cat	ling		
ommunication set		1	
Timeout (10ms):	2400		
Timeout (10ms):	2400	J	

. The Web Server Unit Settings dialog box will appear. Click the **Search** button.

Veb Server Unit	Settings	X
IP address	MAC address	Add
		Edit
		Remove
		Search
		3
1	OK X Cancel	Port No.

J. WindLDR will search for the Web Server Module with the IP you assigned in Step 3. After approximately 10 seconds, the Web Server Unit Settings dialog box will display the IP address of the Web Server Module.

Select the IP address and click 🔀 to close this window (Do NOT click the OK button).

Web Server Unit Set	tings	×
IP address	MAC address	Add
192.168.104.35	00:40:9d:26:16:83	Edit
		Remove
		Search
		9
✓ 0K	🗶 Cancel	Port No.

K. Click the OK button to close the Communication Settings dialog box.

L. Click Online → Monitor. The Web Server Unit Settings dialog box will appear, highlight the IP address and click the OK button.

address	MAC address	Add
2.168.104.35	00:40:9d:26:16:83	Edit
		Remove
		Search
		ų

M. WindLDR is now monitoring the connected PLC via the Ethernet network. You have successfully established remote communication with the Web Server Module. You can now monitor, download and upload ladder programs remotely via Ethernet.



Please visit our website at **www.idec.com/plc** for other tutorials on how to configure Web Server Module functions, such as Web Monitoring, Email and Point-to-Point PLC communication.

USA IDEC Corporation Tel: (408) 747-0550 opencontact@idec.com

Canada IDEC Canada Ltd. Tel: (905) 890-8561 sales@idec.com

Australia IDEC Australia Pty. Ltd. Tel: +61-3-9763-3244 sales@au.idec.com

Japan IDEC Corporation Tel: +81-6-6398-2571 products@idec.co.jp

United Kingdom IDEC Electronics Ltd. Tel: +44-1256-321000 idec@uk.idec.com

Germany IDEC Elektrotechnik GmbH Tel: +49-40-253054-10 service@idec.de Hong Kong IDEC (H.K.) Co., Ltd. Tel: +852-2803-8989 info@hk.idec.com

China/Beijing IDEC (Shanghai) Corporation Tel: +86-10-6599-5541

China/Shanghai IDEC (Shanghai) Corporation Tel: +86-21-5353-1000 idec@cn.idec.com

China/Shenzhen IDEC (Shenzhen) Corporation Tel: +86-755-8356-2977

Singapore IDEC Asia Pte. Ltd. Tel: +65-6746-1155 info@sg.idec.com

Taiwan IDEC Taiwan Corporation Tel: +886-2-2698-3929 service@idectwn.com.tw

Support Information

IDEC MicroSmart www.idec.com/plc

Software demos and upgrades: www.idec.com/software

Technical support support@idec.com

800-262-IDEC www.idec.com



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