# **VNC Viewer User Manual**

VNC (Virtual Network Computing) is a PC software used to help the customers view and check the same screen shown on W series of HMI at the production site, and control the manufacturing process via Ethernet. No matter where you are, remote controlling is not an arduous task at all.

Support HMI of W Series, includes W105B, W127B and W157B.

# I. Connection introduce for HMI

# Create HMI Project File

Start DOPSoft software program for w series and click **File > New** or click **New** icon to create a new project. Then, click **Element > Input > Numeric Entry** to create two numeric entry elements (\$3 and \$6) on the screen. In this case, W105B type DOP W series HMI is used.



Use Screen Cycle Macro and enter the following commands in macro command window.



Click **Options > Configuration > Network App > LocalHost,** check the Application (Net App VNC) function **Enable.** Then, press **OK** button to finish the settings.

Configuration	
	LocalHost SMTP
Main Control Block Print Default Cothers	Localhost       HMI       HMI         upload/download port       12346 ♥ Interface       All ♥         Modbus TCP Server Port       502 ♥ Interface       All ♥         Network App(eServer)       502 ♥ Interface       All ♥         Scan Time       12345678       Interface       All ♥         Port       100 ♥ (ms)       Port       12348 ♥       Interface       All ♥
NetworkApp	Net App (VNC)     Image: Second state of the second state of
	OK Cancel

After finishing above setting, please compile and download all screen data to HMI.

# II. VNC Setting

There are three ways to use VNC Viewer to connect with HMI.

- <u>Computer Software</u>
- Web Browser
- Android App

# a. Computer Software

# Software installation

Please following the below URL link to download VNC software which adapt the operating system.

http://www.realvnc.com/download/vnc/latest/

After double clicking VNC-5.2.0-Windows file downloaded from the website exe file, the following dialog box will appear. Click on Run button to install VNC.

# Please click on Next.

PUNC?Setup	
<b>S</b> A	VNC?Setup Wizard This will install VNC 5.2.0 on your computer. If a previous version is detected, and connections to VNC Server in Service Mode are currently in progress, users will be temporarily disconnected. Users can immediately reconnect as soon as VNC Server upgrades. Users connected to VNC Server in User Mode will not be disconnected. VNC Server in User Mode is not upgraded until the next time it is started. Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

Please choose	I accept the	agreement,	and then	click on Next
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🔂 VNC?Setup	
License Agreement Please read the following important information before continuing.	Ve
Please read the following License Agreement. You must accept the terms of th agreement before continuing with the installation.	is
VNC END USER LICENSE AGREEMENT	<u> </u>
IN ORDER TO INSTALL ANY PART OF THE SOFTWARE (AS DEFINED BELOW), AND/OR TO RETAIN THE SERVICES OF REALVINC, YOU MUST FIRST ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT. BY USING ALL OR ANY PORTION OF THE SOFTWARE YOU ACCEPT ALL THE TERMS AND CONDITION OF THIS AGREEMENT. YOU AGREE THAT THIS AGREEMENT IS ENFORCEABLE LIKE ANY WRITTEN NEGOTIATED AGREEMENT SIGNED BY YOU. IF YOU DO NOT AGREE THEN DO NOT INSTALL OR USE ANY PART OF THE SOFTWARE. B INSTALLING ANY UPDATED VERSION OF THE SOFTWARE WHICH MAY BE MAD	S NY DE T
<ul> <li>I accept the agreement</li> </ul>	
<ul> <li>I do not accept the agreement</li> </ul>	
< Back Next >	Cancel

Please check all components, and then click on Next.

引 VNC?Setup	X
Select components Which components should be installed?	Vg
Select the components you want to install; clear the components you want uninstall. A separate installer will launch for each selected component. Click Next when you are ready to continue.	to
VNC Server VNC Mirror Driver VNC Printer Driver VNC Viewer	
< Back Next >	Cancel

Select the default directory C:\Program Files\RealVNC\VNC Server, and click on **Next** button for the next step. To select a directory other than the default directory, click Browse.



Select the default directory C:\Program Files\RealVNC\VNC Viewer, and click on Next button for the next step. To select a directory other than the default directory, click Browse.

B VNC?Setup	
Select VNC Viewer Location Where should VNC Viewer be installed?	Ve
VNC Viewer will be installed in the following folder. To continue, click Next. If you would like to select a different folder, o	dick Browse.
C:\Program Files\RealVNC\VNC Viewer	Browse
< Back Next	> Cancel

User could check create a VNC Viewer desktop icon option or not and then click on **Next**.

₩VNC?Setup	
Select Additional Tasks Which additional tasks should be performed?	Ve
Select the additional tasks you would like Setup to perform, then click Ne	ext.
Additional icons:	
Create a VNC Viewer desktop icon	
< Back Next >	Cancel

Please check the Add an exception to the firewall for VNC Server, and then click on Next.

VNC?Setup	
Firewall Configuration     V2       Add a VNC Server firewall exception     V2	
To enable users to connect, an exception must be added to the firewall. VNC Server can attempt to add this exception, or you can configure the firewall yourself. Note that some firewalls may prevent VNC Server adding an exception. If users	
experience connection problems, examine the firewall's settings.	
< Back Next > Cancel	

# Please click on **Install** button to install VNC.

VNC?Setup	
Ready to Install Setup is now ready to begin installing VNC on your computer.	Va
Click Install to continue with the installation, or click Back if you want to re change any settings.	view or
Upgrading VNC Server (5.2.0): Install mirror driver Install printer driver Add firewall exceptions	
VNC Server destination location: C:\Program Files\RealVNC\VNC Server	Ξ
VNC Viewer destination location: C: \Program Files\RealVNC\VNC Viewer	-
4	4
< Back Install	Cancel



#### Click on Finish button to complete VNC setup.

#### Start VNC Viewer

Start VNC Viewer and following as below setting, click on Connect.

VNC Server : Please input VNC Server IP Address and

connection port. The IP Address is HMI IP Address and the connection port is click **Options > Configuration > Network App > LocalHost of DOPSoft**, set port of the Application (Net App VNC) function. The connection example for HMI IP Address is **192.168.123.26:5900**. If DOPSoft software changed the port to 5902, the VNC Viewer must be input 5902 to connect.

Encryption : Please select Let VNC Server choose.

V2 VNC Viewer	
VNC® Viewer	Ve
VNC Server: 192.168.123.26:5900	
Encryption: Let VNC Server choose	•
About Options	Connect

If connection is successfully, it will appear the following window to remind user this connection is unencrypted. User could ignore this warning and click on **Continue**.

V2 VNC Viewer - Encryption		
Unencrypted connection		
The connection to this VNC Server will not be encrypted.		
VNC Server: 192.168.123.26::5900		
Your authentication credentials will be transmitted securely, but all subsequent data exchanged while the connection is in progress may be susceptible to interception by third parties.		
🔲 Don't warn me about this again.		
Continue Cancel		

But if connection is failed, it will appear the following window. It means the IP address does not exist or the VNC network application is not enabling.



After connection successfully, VNC will ask user to input the

connection password for HMI and VNC. The password is <u>DOPSoft</u> <u>Network App password setting of VNC</u>, default is 12345678.

V2 VNC Viewe	er - Authentication
VNC Server:	192.168.123.26::5900
Username:	
Password:	••••••
	OK Cancel

If type incorrect password, it will appear the following message.



After authentication pass, the connection is established.

V2 WindowsCE - VNC Viewer		23
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\$3	44	
\$6	171	

# b. Web Browser

VNC Viewer also provide web browser, it is have an easy connection way with typing HMI IP address and port number.



Step1. Open the web browser, for example is using Google Chrome.

Google Chrome browser connection example:

Please type the IP address and port number:

## http://192.168.123.48:5800/.

IE browser connection example:

Please type the IP address and port number:

# http://192.168.123.26:5800/.

Firefox browser connection example:

If use Firefox browser to connect, please turn off the proxy at first.

Then type the IP address and port number:

# http://192.168.123.26:5800/.

If type incorrect IP address, it will not display any content.



# Embedded



VNC Viewer Free Edition 4.1 Credits: Peica Chen (China) Johan Henning (Netherlands) See http://www.efon.cn for information on VNC.

After typing the correct IP address, it will appear following as below window, please click on OK.

VNC Viewer :	Connection De	etails		x
Server:	192.168.123.2	6:0		
Encryption:	Not supported	•	-	
About	Options	ОК	Ca	ncel

Step2. Please input the password to connect with HMI, the default password is 12345678 which set from DOPSoft VNC.

실 VNC Auth	entication [No Encrypti 🗖 🗖 💌
Username:	
Password:	******

If type incorrect password, it will display as below error message.

🗳 🗖 🗖 📈	
rfb.AuthFailureException: Authentication failure	
ОК	



S VNC: WindowsCE		
\$3	3303	
\$6	9912	

# c. Android App

Please get the VNC Viewer App from Google play store at first. After download, please execute the app to finish the following steps.

Step1. Please click on the bottom left corner [ + ] to add new

connection.



Step2. Input the connection IP address and connection name.

- (1) Please input HMI IP address and port number.
- (2) User could custom the connection name.
- (3) Please do not check the save password option.

# (4) After finishing above setting, please click on the below icon.

		79% 🛑 I C	):49
< <mark>V2</mark> Details			
(1)   92.   68.0.   05:50	900		
<sup>(2)</sup> WI05B			
(3) Save Password			



Step3. Complete the setting, it will display as below figure. Please click on **Connect**.

	× 🖸 🕷	🖡 ۲۹% 📊	10:49
ଏ 🔽 ଜା ୦ନନ୍ତ			
	Connect		
ADDRESS			
192.168.0.105:5	900		AMAN
NAME			
W105B			ATAN
DETAILS			
L			



If input the incorrect IP address, it will appear the following message.

Step4. It will ask user to input the password to connect with HMI, the default password is 12345678 which set from DOPSoft VNC.

	$\boxtimes \boxtimes \bigcirc$	79%	10:50	)
Authentico	tion			
•••••				
Cancel		 ОК		
Cancel		ОК	1	
Cancel		ОК		
Cancel		OK		
Cancel		OK		

If input the incorrect connection password, it will appear the following message.





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Step5. After authenticate successfully, the connection is established.

# III. VNC Viewer Detail Setting

After the VNC Viewer connected with HMI, move the mouse to the upper window, it will appear the tool bar.

V2 WindowsCE - VNC Viewer		
	1	
\$3	44	
\$6	171	

The following table will introduce related function.

	New connection	Use new connection could op	erate multiple HMI.
1. Clic	ck on 💻 , it will	appear as below window to typ	e another HMI IP
Ade	dress for operati	ng.	
	V2 VNC View	ver	
	VNC® Vie	ewer	Ve
	VNC Server	: 192.168.123.49	<b>_</b>
	Encryption:	Let VNC Server choose	•
	About	Options	Connect
2. Afte	er new connectio	on establishing, the VNC Viewe	r is connecting with two

VE WindowsCE - V	NC Viewe	н			23	VE WindowsCE - VNC Viewer		_		
\$	3	7194	4			1 2	0	0 0.0 0.00 0.000	0.0000 0.00000 0.000000	
\$	6	###	#		R R R R	GETHISTORYI 1 History 0 0 Data 0 0 Buffer 1 GET (Clear 00005100051043 00005100051043 000051000510051043 0000510005100051045 000051000510051045 00005100051005 4 SIN ( 350 )=	1 ' 1 0	→ \$11721 · 2 ): 0 0 0 ar Alarm 005 11064 0 005 11064 0 005 11064 0 0 0 0 0 0 0 1071 1079 ↓ ↓ SIN	0         GETHISTORY           0         0         0           0         0         0           0         0         0	
						ppostion f	unotion		we the	1
_			Save	The save	CO	nnection it	unction	COUID Sa	ave the	
		0.0		configurat	tior	n for next t	ime co	nnection.	. User ex	ecutes
			nnection	connectio	n v	without typ	e IP ad	ldress an	d nassw	ord
1. C	lic	k on	园 , it v	/ill appear as	be	low two wi	ndows			
			Password	d Behavior					x	
			What do	you want to do wit	th the	e VNC Server p	assword f	or 192.168.1	123.49?	
			C Darall	1010 0						
			Don't	VNC Server page	assv	word				
			Save     Save     Save     Save	pt VNC Server passwo	swor	d (recommende	ed)			
			Dor	i Cask me this again						
						(	Ж	Canc	el	
		ļ	(						)	
i										

1	
VNC Address Book	
File Edit View Tools Help	
Alphabetic Hierarchical	
Your address book is empty	
Details	
Forwards	
Username:	
Options:	
0 entries Master Password: Stored	
e choose Save VNC Server Password in F w, and then click on OK to save connection	Password Beha
e choose <b>Save VNC Server Password</b> in <b>H</b> w, and then click on <b>OK</b> to save connection saving, the configuration is saved as to <b>VNC</b>	Password Beha n. C Address Book
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e choose Save VNC Server Password in How, and then click on OK to save connection saving, the configuration is saved as to VNC Server Tools Help	Password Beha

Master Password: Stored

1 entry

User also saves multiple connections as below figure.					
VNC Address Book					
File Edit View Tools Help					
Alphabetic Hierarchical					
		92. 168. 123. 26 92. 168. 123. 49			
Details					
	VNC Serv	er: 192.168.123.49			
	Encryptio	n: Let VNC Server choose			
Usernam		e: TINA.Q.LEE			
Uptions:					
2 entries Master Password: Stored					
On	ly start VNC Add	dress Book and select the connected IP address when			
next connection					
	Close	Close connection will close VNC Viewer with HMI			
1	Connection	connection			
Click on 🖾, it will ask users the following question.					
VNC Viewer					
Are you sure you want to disconnect?					
Yes No					
Click on <b>Yes</b> , it will close the connection					
Click on <b>No</b> , the connection is still connecting					
		Detailed setting for VNC Display Inputs			
		Troubleshooting and Expert All of these			
	Options	configurations is VNC original softing and use default			
		parameters to connect with UMI. Therefore, this part			
		parameters to connect with nivil. Therefore, this part			

		does	s not describe more explanation.		
	Full Screen Mode		function is display full screen.		
1	Connection Information Get		more connection information for VNC Viewer.		
	V2 VNC Viewer - Connection Information				
	Desktop name:		WindowsCE		
	VNC Server: Size:		192.168.123.26::5900		
			800 x 600		
	Pixel format:		depth 15 (16 bpp) little-endian rgb555		
	VNC Server default: Requested encoding: Last-used encoding: Line-speed estimate: Protocol version: Security method:		depth 15 (16 bpp) little-endian rgb555		
			TRLE		
			Hextile		
			20000 kbit/s (RTT ~0ms)		
			3.8		
			VncAuth [no encryption]		
	Connection type:		Direct TCP		
	Extensions:				
			ОК		