

User Guide Flosense 3.0 & 4.0 connecting VNC - Detailed



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1. Introduction

This User guide serves as a reference for the operator of a Flosense 3.0 and 4.0 Manifold system. It describes how to set up Virtual Network Computing (VNC) to allow the Flosense system to broadcast and receive information to and from another unit. In most cases this will be the Machine UI on the moulding machine, but it can also be connected to other devices.

Please ensure that you have read this guide thoroughly before connecting your Flosense system to your Machine UI or PC with VNC.

This user guide assumes that you have previously followed the Flosense 3 or 4 Manifold Installation-guide and as a minimum have set up the Flosense display. This guide can be followed regardless of whether the manifolds have been connected to the display or not.

There are two ways of connecting the Flosense system to your device

- Connecting the Flosense display locally to Machine UI for Windows
- Connecting the Flosense display to the Machine UI through common router for Windows.

Disclaimer

Costs connected to any damages to the products, PC or Machine UI caused by lack of following the instruction manuals, will be at the customers own expense.

1.1. Connecting the Flosense display locally to Machine UI for Windows

The following steps will explain how to connect your Flosense display to the Machine UI or to your PC. In order to successfully connect the display to your unit with a local connection, you will need to setup both units to have a static IP-address.

1) Connect the Flosense display to your unit with an ethernet cable.

The Flosense display needs to be Turned OFF, before connecting the display to the Machine UI or PC as seen on the picture below. Once they are connected you can turn on the Flosense display.



2) Find or define the IP-address and Subnet mask for your unit.

If you have already been provided with the IP-address and Subnet mask for your unit, you can skip this step. Otherwise this section will explain how it is done on the next page.

First, you need to open up the "Network and Sharing Center" on your PC/Unit. This can be found by opening the "control panel" and entering "Network and Internet" and finally selecting "Network and Sharing center"

Once this is done, you need to click "Ethernet" (or Local Area Connection) under connections for the Flosense unit as shown on the image below.



If you have multiple options and are unsure, try disconnecting the ethernet cable and see which connection disappears. The connection that disappears should be the connection to the Flosense display. Afterwards reconnect the ethernet cable to the Flosense display and reboot the system.

After rebooting the system, click "Ethernet" for the Flosense unit.

This should open the "ethernet status" (or Local Area Connection status) window, seen below. In this window, press "Properties".

Ethernet Status			\times
General			
Connection			-
IPv4 Connectivi	ty:	No network access	
IPv6 Connectivi	ty:	No network access	
Media State:		Enabled	
Duration:		01:32:58	
Speed:		100.0 Mbps	
D <u>e</u> tails			
Activity			-
	Sent —	Received	
Bytes:	189,643,400	10,546,392,704	
Properties	₽ Disable	Diagnose	
1		Close	

Ethernet Properties	×
Networking Sharing	
Connect using:	
Intel(R) Ethemet Connection (7) I219-V	
<u>C</u> onfigure	
This connection uses the following items:	
 Kientprogram til Microsoft-netværk Fil- og printerdeling til Microsoft-netværk QoS-pakkeplanlægning FortiClient NDIS 6.3 Packet Filter Driver TCP/IPv4 (Internet Protocol Version 4) Protokollen Microsoft Network Adapter Multiplexor Driver til Microsoft LLDP-protokol 	~
Install Uninstall Properties	
Description TCP/IP (Transmission Control Protocol/Internet Protocol). Standard-WAN-protokol, der kan bruges til kommunikation på tværs af flere indbyrdes forbundne netværk.	
OK Canc	el

After opening "properties", select the "TCIP/IPv4 (Internet protocol version 4) as shown above. Then press "properties" again as shown.

This will show the properties for the TCP/IPv4, as seen below

TCP/IPv4 (Internet Protocol Version 4) Properties			
General			
You can get IP settings assigned autom this capability. Otherwise, you need to for the appropriate IP settings.	natically if your network supports ask your network administrator		
ODtain an IP address automatical	у		
Use the following IP address:			
IP address:	192.168.4.5		
Subnet mask:	255.255.0.0		
Default gateway:			
Obtain DNS server address autom	atically		
• Use the following DNS server add	resses:		
Preferred DNS server:			
Alternative DNS server:			
Validate settings upon exit	Ad <u>v</u> anced		
	OK Cance	I	

Input the network data you wish. For the subnet mask, it is highly recommended to input 255.255.0.0 as seen above.

When entering the IP-address, if you have input the recommended subnet mask, the first 6 digits of the IP address will be assigned to your PC/Unit by your network and you can select the remaining digits yourself.

The first 6 digits will almost always be 192.168 as shown above, but the remaining digits may be any number you choose between 1 and 255.

After entering the data above, click OK and your network should be ready to connect.

3) Define the IP-address and Subnet mask on the Flosense display

To define the IP-address and Subnet mask, you need to find the Network settings on the Flosense display. These settings can be found in the global settings menu, seen below marked with a red circle.



Once you have opened the network settings, you must set IP allocation to STATIC and you need to enable VNC as seen below.

		NETWORK
IP ALLOCATION	ENABLE OPCUA	PORT
STATIC OVNAMIC		4840
CURRENT IP ADDRESS		
192.168.004.123		
SUBNET MASK	ENABLE VNC	PORT
255.255.000.000		5901
GATEWAY		
000.000.000		

Next, the Subnet mask need to be exactly the same as the subnet mask entered in the TCP/IPv4 settings earlier.

If you entered the recommended Subnet mask, The IP-address entered here need to start with the same 6 digits as before (192.168), followed by 6 digits of your choice. The only two restrictions to these 6 digits are

- They need to be between 1 and 255
- They cannot be exactly the same digits as the ones entered in the TCP/IPv4 earlier

Gateway does not need to be filled out, but if you accidentally do, you can change it to 000.000.000.

After entering these values, you need to exit the menu in order for the changes to take effect.

IMPORTANT!

The Flosense display need to have 12 digits in the IP-address field in order to successfully register the IP-address. This means that if you wish to use the IP-address 192.168.4.5, you will need to enter 192.168.004.005 in the Flosense software.

4) Connect the Flosense display to your unit with VNC software

Use the appropriate VNC connection software of your choice to connect the two devices. In order to connect to the Flosense display, you will need to enter the IP-address of the Flosense unit, followed by the Port number (in this example ::5901) as seen below.

🖀 New TightVNC	Connection	-	-	×
Connection				
Remote Host:	192.168.4.123::5901	\sim	Connect	
Enter a name or append it after	an IP address. To specify a port nu two colons (for example, mypc::590	umber,)2).	Options	
Reverse Connec Listening mode a their desktops.	tions Illows people to attach your viewer /iewer will wait for incoming connec	to tions.	Listening mod	le
	TightVNC is cross-platform remote Its source code is available to ever (GNU GPL license) or commercially Version info	control so yone, eit (with no G	oftware. her freely GPL restrictions) Configure).

Make sure that you have connected your manifolds to your Flosense display before connecting the units with VNC, as the VNC connection is lost if the Flosense display is turned off or rebooted.

1.2. Connecting the Flosense display through router for Windows

In order to be able to connect the Flosense unit to your system using a router, the router needs to have DHCP, for it to be able to designate an IP-address to the Flosense display. The following steps will explain how to connect your Flosense display to the Machine UI or to your PC. In order to successfully connect the display to your unit through a router, you will need to setup the Flosense display to have a dynamic IP-address.

1) Connect the Flosense display to your router with an ethernet cable.

The Flosense display needs to be Turned OFF, before connecting the display to the router as seen on the picture below. Once they are connected you can turn on the Flosense display.



2) Setup dynamic IP allocation on the Flosense display

In order to setup dynamic IP allocation, you need to find the Network settings on the Flosense display. These settings can be found in the global settings menu, seen below marked with a red circle.



Next, you need to toggle the IP allocation settings to DYNAMIC and enable VNC as seen below. You do not need to enter anything in the CURRENT IP ADDRESS field.

		NETWORK
123 456	IP ALLOCATION STATIC DYNAMIC CURRENT IP ADDRESS 192.168.004.123	PORT 4840
789		PORT 5901

After setting up the display, exit the Network menu and enter it again. It should now show an IP address in the CURRENT IP ADDRESS field. This is the IP address the router has allocated to your Flosense display. 3) Connect the Flosense display to your unit with VNC software

Use the appropriate VNC connection software of your choice to connect the two devices. In order to connect to the Flosense display, you will need to enter the IP-address of the Flosense unit, followed by the port number (in this example ::5901) as seen below.

🚾 New TightVNC	Connection	-	_		\times
Connection					
Remote Host:	192.168.4.123::5901	\sim		Connect	
Enter a name or append it after t	an IP address. To specify a port numb wo colons (for example, mypc::5902).	er,		Options	
Reverse Connect Listening mode a their desktops. V	ions llows people to attach your viewer to iewer will wait for incoming connection	IS.	Ŀ	istening mod	le
TightVNC Viewer					
tight VNC	TightVNC is cross-platform remote con Its source code is available to everyor (GNU GPL license) or commercially (wit	ntrol s ne, eit h no (oftv ther GPL	vare. freely restrictions)).
	Version info Licensing			Configure	

Make sure that you have connected your manifolds to your Flosense display before connecting the units with VNC, as the VNC connection is lost if the Flosense display is turned off or rebooted.

Change log

Date of change	Change	Version
09-10-2020	VNC Functionality implemented on Flosense	001
	systems	