

9. HMI Remote viewer

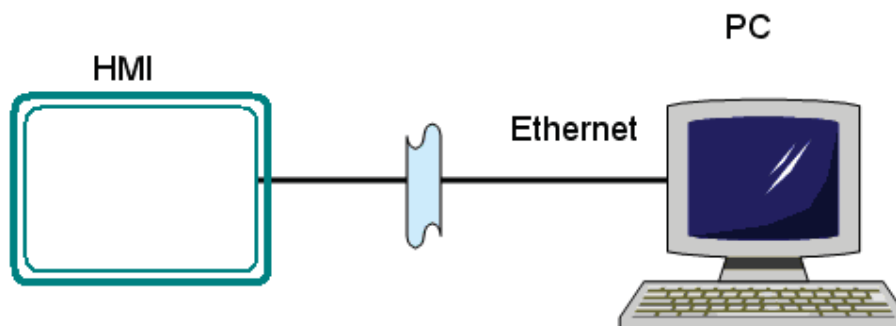


NEVER USE “HMI REMOTE VIEWER” FOR EMERGENCY APPLICATIONS OR CRITICAL PROCESS CONTROL APPLICATIONS

9.1 Overview

It's possible to control, monitor HMI from PC located at different location. Possible routing include Local area network (LAN), Virtual private network and Internet.

HMI Remote viewer show operator panel image in PC monitor. Images from HMI are regularly updated as per sampling rate configured between 1 and 120 sec. HMI Remote viewer function offers same functionality as HMI including full monitoring and control



9.2 System Requirements

1. Microsoft operating systems Windows XP, Windows7, Windows Vista and Windows 2000
2. More than 10% of free memory in hard disk size
3. Computers installed with latest security updates, antivirus software etc.
4. 1 GB free RAM size

9.3 Limitations

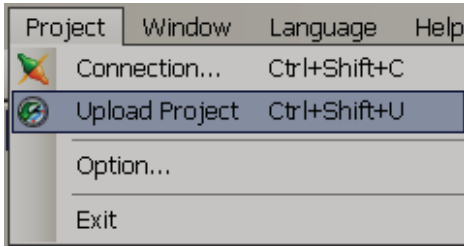
Some of tags show differently between HMI and HMI Remote viewer. Some shows independently and known list is given below

- a) HMI Remote viewer/HMI different: It means, tag values display independently
- b) HMI Remote viewer/HMI different (Write only): It means, tag values display independently at first, and once tag value is modified at HMI Remote viewer, it will write value to HMI, do not effect HMI Remote viewer itself)
- c) HMI reference: It is Read only from HMI.
- d) HMI Remote viewer Read and Write: It is like Global. It means, tag value is same in both HMI and Remote viewer. If you modify tag at HMI, it will modify at HMI Remote viewer and Vice versa

Number	Tag Name	Details
1	CurrentPage	HMI Remote Viewer/HMI different (Write only)
2	CurrentUser	HMI Remote Viewer/HMI different
3	CurrentSecurityLevel	HMI Remote Viewer/HMI different
4	TriggerPer100ms	HMI reference (Read only from HMI)
5	TriggerPer1sec	HMI reference (Read only from HMI)
6	MemoryFull	HMI reference. (Read only from HMI). Check HMI memory is full or not
7	MemoryAvailablePresent	HMI reference (Read only from HMI)
8	NumberOfRealtimeAlarm	HMI Remote Viewer/HMI different
9	NumberOfHistoricalAlarm	HMI Remote Viewer/HMI different
10	ScreenSaverTime	HMI Remote viewer Read and Write
11	BeeperEnable	HMI Remote viewer Read and Write
12	BeepVolume	HMI Remote viewer Read and Write
13	Backlight	HMI Remote viewer Read and Write
14	RTC_Day	HMI Remote Viewer/HMI different
15	RTC_Month	HMI Remote Viewer/HMI different
16	RTC_Year	HMI Remote Viewer/HMI different
17	RTC_Hour	HMI Remote Viewer/HMI different
18	RTC_Min	HMI Remote Viewer/HMI different
19	RTC_Sec	HMI Remote Viewer/HMI different
20	RTC_DayofWeek	HMI Remote Viewer/HMI different
21	IsDataLogging	HMI reference (Read only from HMI)
22	SystemDI_1	HMI reference (Read only from HMI)
23	SystemDI_2	HMI reference (Read only from HMI)
24	SystemDI_3	HMI reference (Read only from HMI)
25	SystemDO_1	HMI Remote viewer Read and Write
26	SystemDO_2	HMI Remote viewer Read and Write
27	SystemDO_3	HMI Remote viewer Read and Write
28	LanguageIndex	HMI Remote Viewer/HMI different (Write only)
29	InputTag	HMI Remote Viewer/HMI different
30	CurrentRecipeName	HMI Remote viewer Read and Write
31	CurrentRecipeDataRecord	HMI Remote viewer Read and Write



First time after opening your HMI Remote viewer session, we suggest to “Upload project” function manually to get latest HMI configuration and system tag values if any to avoid confusions.









Other limitations

1. One HMI can be connected to maximum 3 nos. computers. There is no limitation to view number of HMI to view per HMI Remote viewer session and performance depends on PC resources and capabilities like CPU speed, free RAM size, free space in hard disk, network traffic etc. We suggest to use HMI Remote viewer to connect maximum 4 HMI
2. When operating on Internet, speed of internet connection also effect performance
3. Data encryption features are not available with HMI Remote viewer. It may be assumed to the safe to use HMI Remote viewer safely in Local area and Virtual private networks and may be not safe to use over internet.
4. Users are requested to take adequate precautions to include firewalls, updated antivirus software in computers, latest operating system security updates or associated safety configurations while using applications over internet
5. Some functions in HMI Remote viewer works in slightly different way. For example, if Real time trend and Historical trend is running in HMI, if you open the same trends via HMI Remote viewer, it will not show data from HMI, instead it will start showing as per current Real time data for current session in PC
6. The same case for alarms too. Historical alarms displayed in HMI may not exactly match with HMI Remote viewer, as later will show only for current session and unable to retain historical data from HMI itself.
7. If new users are added in HMI, then, it need to upload project again at HMI Remote viewer to get all user names and passwords, other wise, HMI Remote viewer will be showing as per earlier configuration data. The same case applied for Recipe data as well
8. If a system function do not use tag binding, then, it works independently at HMI and HMI Remote viewer. For example, acknowledge alarm function linked to a button do not use any tag binding. It is independent function. So, if you acknowledge alarm in HMI, it's only works with in HMI only, but not acknowledge alarm in HMI Remote viewer
9. System date and time object will show differently at HMI and HMI Remote viewer session. The same case applies to many other system tags which do not use tag binding, they display independently at HMI and HMI Remote viewer
10. Since it's possible to control HMI from multiple locations, it's not possible to display same screens at both HMI and computers. Also, it allows to log in via different user names and levels from multiple locations and no control available to log in by single user at any specific time
11. If you wish to set firewall setting for HMI Remote viewer, contact factory for the port number details

9.4 Installation

Make sure Microsoft.Net Framework 3.5 SP1 installed in PC

HMI Remote viewer software bundled in CD from HMI editing software V1.1 onwards. It can be selected during installation of HMI editing software or download latest version from website

-  Microsoft Installer V3.1
-  Microsoft .Net Framework 3.5 SP1
-  Panel Studio
-  OPC Server
-  Demo Project
-  Historical Viewer
- HMI Remote Viewer

9.5 HMI Remote viewer session

1. First enter Password in HMI from Control Center.



2. Power ON HMI, press “Instrument”, then press “Advanced”, enter Password. Remember this password carefully
3. Make sure HMI application is running, HMI connected to PC via Ethernet.
4. Assume, IP address of HMI is 192.168.0.228
5. Use Ping instruction from PC to check if HMI is connected to PC or not. If there is no response, please check your Ethernet cable or Virtual private network or internet connection. If HMI is connected to Internet, then, make sure, you obtained Fix IP address (Global IP) from your internet solution provide and enter the same first in HMI from Control center.

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c:\ Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.



E:\Documents and Settings\Mahidhar>Ping 192.168.0.228

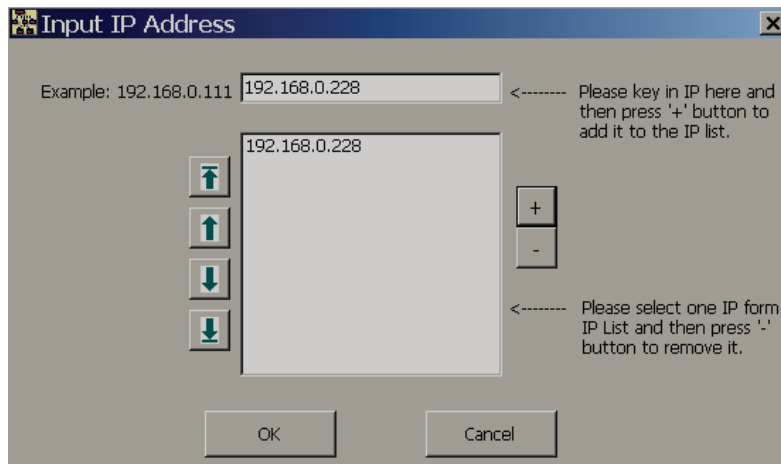
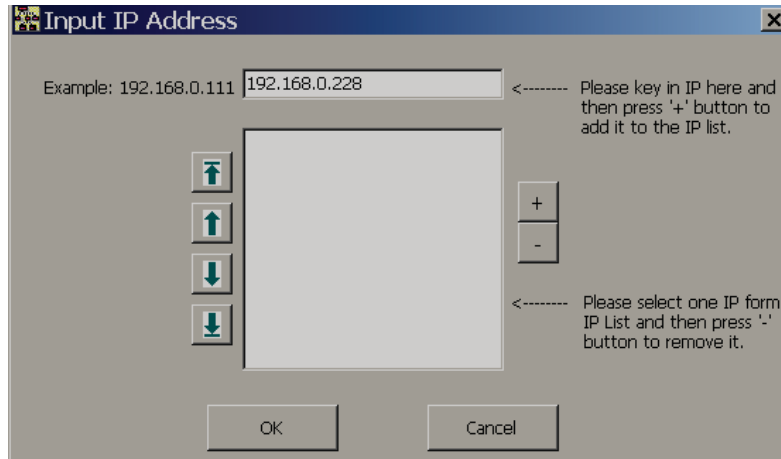
Pinging 192.168.0.228 with 32 bytes of data:

Reply from 192.168.0.228: bytes=32 time<1ms TTL=128
Reply from 192.168.0.228: bytes=32 time<1ms TTL=128
Reply from 192.168.0.228: bytes=32 time<1ms TTL=128
Reply from 192.168.0.228: bytes=32 time<1ms TTL=128

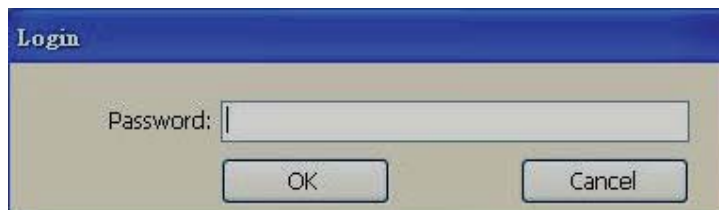
Ping statistics for 192.168.0.228:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

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- Click icon  to open HMI Remote viewer. If HMI Remote viewer software installed in PC successfully, then, above will be created in desktop.
- Enter IP address of HMI in space provided for this. Then, click , then, IP address will be moved to IP list. If more than one HMI is required, repeat this procedure such that all IP address should be available here

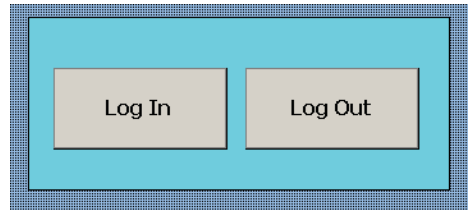


- Press "OK", then, it will prompt to enter Password.

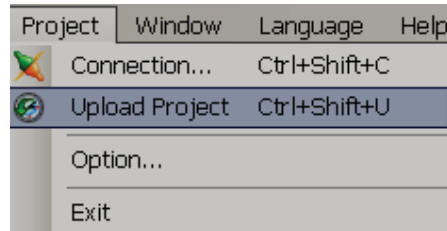


- Now, you have to enter Password set at Control Center. If password match with password set at HMI Control center, HMI screen will be transferred to PC. Other wise, it will give message about incorrect password

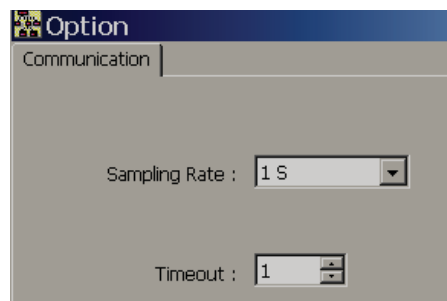
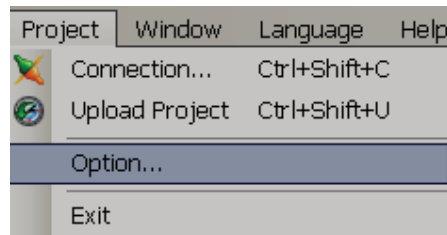
10. For proper security, we suggest to utilize all the security features available in HMI editing software. You may reserve first screen in HMI for user log in as shown below.



11. Once project configuration is received from HMI to PC, it will be stored in PC. If there are any changes like User security levels, Recipe etc.. in HMI, it will not update in HMI Remote viewer project automatically. In this case, you may upload the project again as shown below to effect new changes



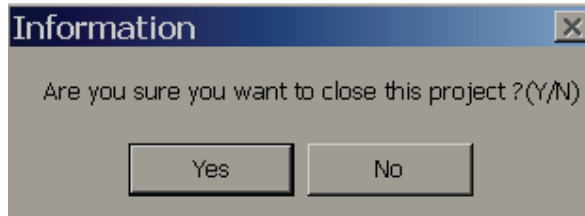
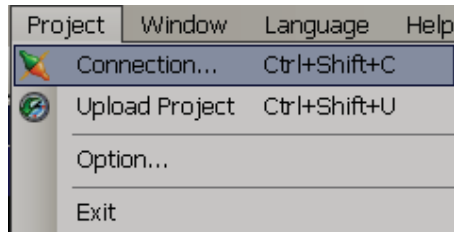
12. It's possible to set sampling time and time out as shown below.



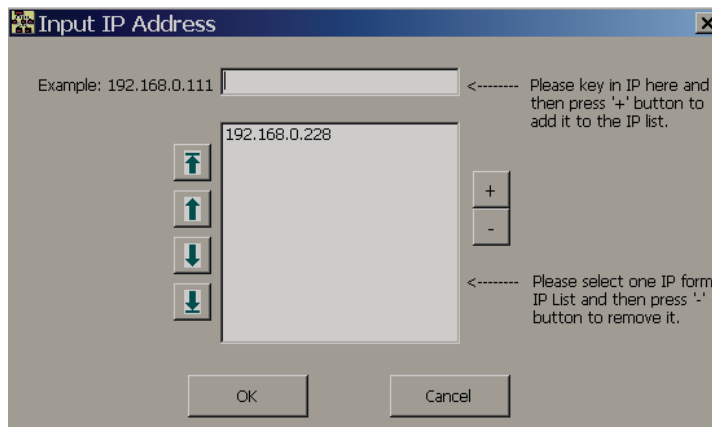
Once above settings are modified, it will be effective after you close the present HMI Remote session and open it again


9.6 View more than one HMI in one session

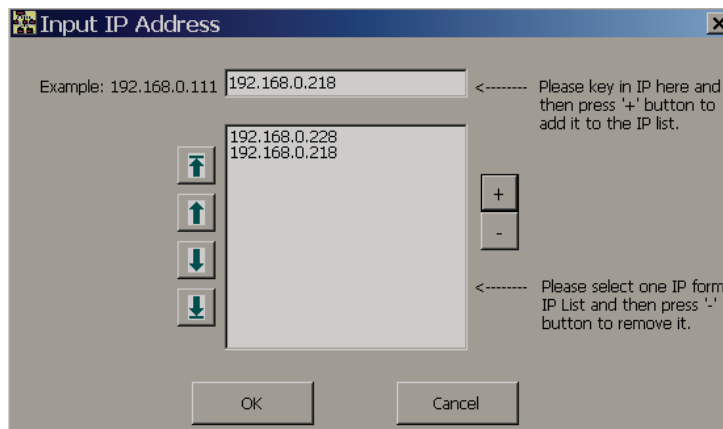
1. In Menu, click "Project", then, click "connection"



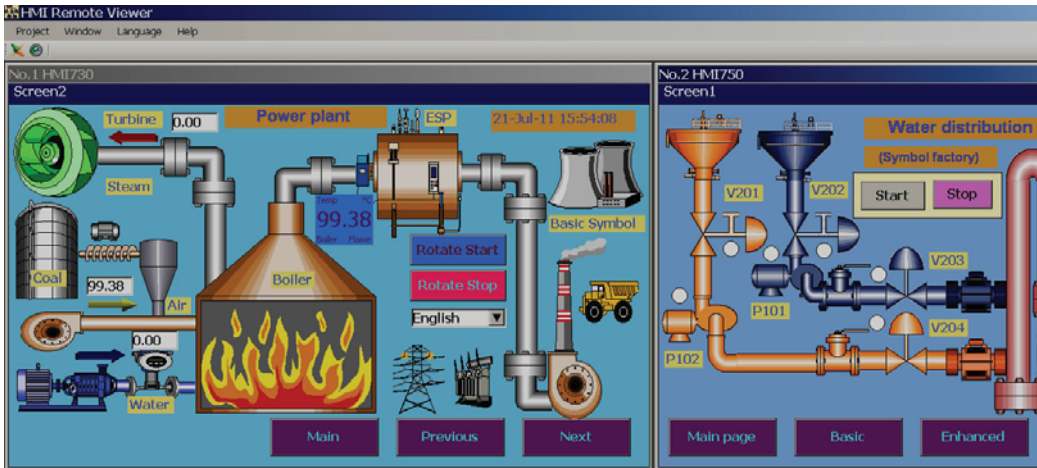
2. Click "Yes" to close current screen.



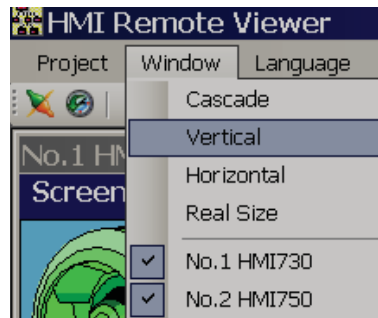
3. Enter IP address of second HMI and then click  to move to IP list



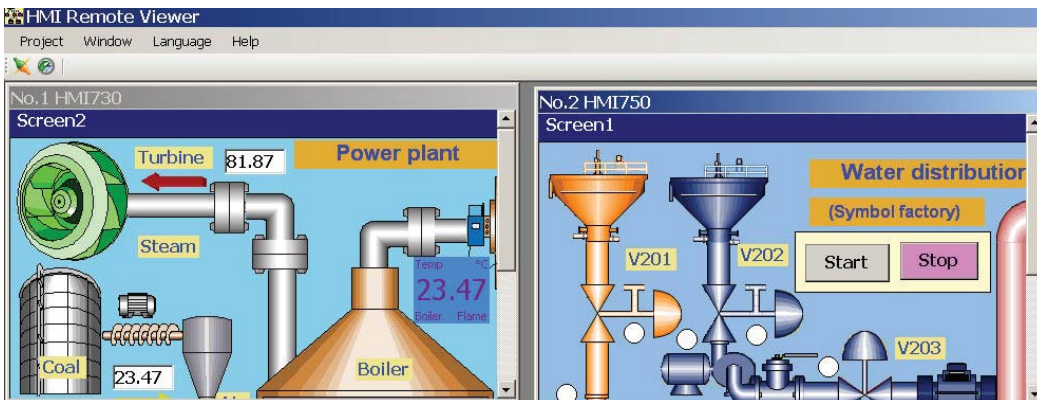
4. Press "OK" to get images from both HMI to single HMI Remote viewer session



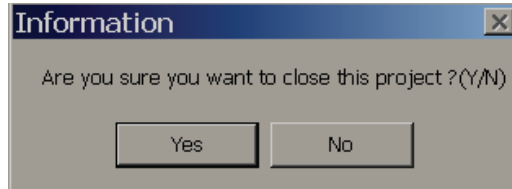
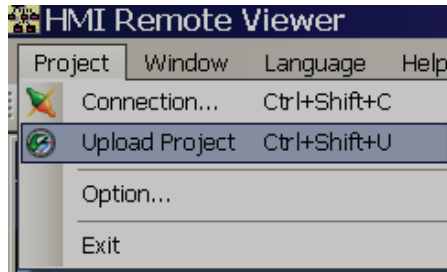
5. Depending on your PC monitor size and HMI screen size, it may not show all the HMI screens in your monitor properly. By default, horizontal mode is selected.
6. You may select “Vertical mode” as shown below then, HMI are shown vertically



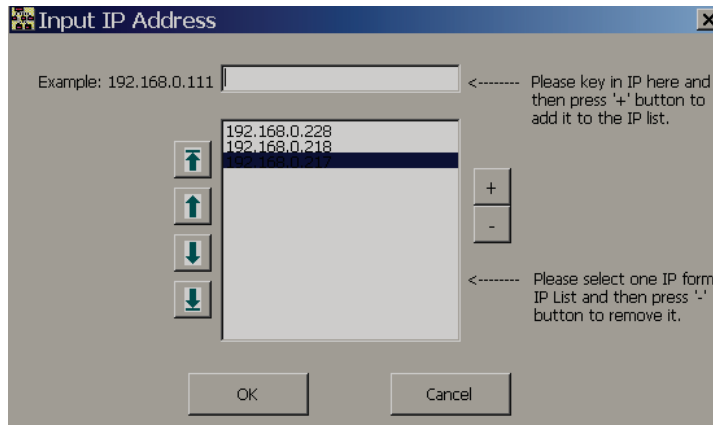
7. In cascade mode, vertical/horizontal scroll bar will appear and use can customize the size as per your requirements




9.7 How to delete existing HMI project from HMI Remote viewer

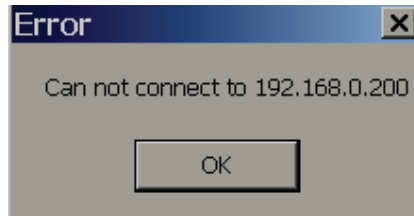


Click "Yes"



Select IP address of HMI to be removed, then click at soft button , then press soft button "OK".

If configured HMI is not available in network, it may show error message as shown attached



If HMI is disconnected when HMI Remote viewer session is running, it may show "Communication error" message in some objects like Text box etc.. no special alert messages are displayed in HMI Remote viewer