EMUFDD v31 – Network User Manual

The most reliable and configurable Universal Floppy HW Emulator <u>ALL-INCLUSIVE PROFESSIONAL INSTALLATION SERVICE AVAILABLE</u> *Custom/non-standard floppies analysis & development available*





Network Version

Section 1.	D ATASHEET
Section 2.	HARDWARE INSTALLATION
Section 3.	Network Installation
Section 4.	WIRELESS NETWORKING
Section 5.	INTRODUCTION & EMULATION CYCLE
Section 6.	Softwareless Mode Storage
Section 7.	Virtual-Floppy Mode Storage
Section 8.	Loading into EMUFDD's Memory from PC Server
Section 9.	SAVING FROM EMUFDD'S MEMORY TO PC SERVER
<u>Appendix A.</u>	Supported Floppy Disk Drive Interfaces
<u>Appendix B.</u>	WinXP – Get/Assign a Static IP Address
Appendix C.	Win7 & Win8 – Get/Assign a Static IP Address

Section 1. DATASHEET



Retrofit services for the industry, from the machinery to the solution

EMUFDD Tech-Homepage : www.embeddedsw.net

Designer & Customer Support : embedded@embeddedsw.net

EMUFDD scores a unique 100% rate of successful floppy replacements:

- we freely help customers, **before purchasing**, in collecting all the needed infos;
- we provide floppy analysis service to identify/backup/emulate all floppy disks;
- we provide free software capable of doing **universal backup** of floppy disks;
- we provide free software capable of full floppy drive virtualization.

ALL-INCLUSIVE PROFESSIONAL INSTALLATION SERVICE AVAILABLE

We're able to come to you and directly retrofit all kind of existing industrial machinery, quickly, safely and at an affordable price:

- no need to change the CNC/PNC/control;
- no need to change any electronic;
- backup/digitalization/testing of all kind of data/program floppy disks;
- backup/digitalization/testing of all system/boot/recovery floppy disks;
- absolutely no need to rewrite programs;
- new programs saved directly on EMUFDD;
- shortest production stopping time;
- EMUFDD training of the worker.

Dime	NSIONS – 3.5 " FORM FACTOR
Height [H]	1,00 in / 2,54 cm
WIDTH [W]	4,00 in / 10,16 cm
Depth [D]	5,30 in / 13,46 cm
WEIGHT	0,80 <i>lb</i> / 363 g

EMUFDD v31 – Network User Manual - Last Revision February 2022

HARDWARE				
INTERNAL MEMORY TYPE		1.5 MB FRAM non-volatile memory		
INTERNAL MEMORY RELIABILITY		10^{14} R/W cycles = 50 years 24/7		
Power On Tim	IE	Less than (<) 500 ms		
USER FRONT INTERFACE		USB keys with FAT format – 100 floppy disks Ethernet 10T network – unlimited floppy disks		
FLOPPY REAR INTERFACE		34 pin flat cable (3.5" & 5.25") + 5V power supply 26 pin flat cable (integrated power supply) 26 pin slim cable (integrated power supply) USB 1.0 standard external floppy SCSI 50 pin standard floppy		
Software				
FIRMWARE RELEASE		Revision 31 (July 2017)		
CONFIGURATION		100% Jumperfree / Plug'n'Play		
FIRMWARE UPGRADE SUPPORT		Yes		
NETWORK SOFTWARE		XP, Win7, Win8, Win10, Server, x32 & x64		
Encoding	FM / MFM / custom on request			
Speed	300 rpm / 360 rpm / <i>custom on request</i>			
DATA CLOCK	From 125 Khz (the old 8") up to 500 Khz (the modern 3.5")			
Support	Softwareless Mode: FAT12 – 360KB / 720KB / 1.200MB / 1.440MB Raw Image Mode: <i>Any existing standard or custom on request</i>			
Some common examples	80/2/18x512 – MFM: 500 KHz – 300 rpm – 1.440MB 80/2/15x512 – MFM: 500 KHz – 360 rpm – 1.200MB 80/2/9x512 – MFM: 250 KHz – 300 rpm – 720KB 40/2/9x512 – MFM: 250 KHz – 300 rpm – 360KB			
More less common examples	83/2/18x512 – MFM: 500 KHz – 300 rpm – 1.494MB 80/2/32x256 – MFM: 500 KHz – 300 rpm – 1.280MB 80/2/5x1024 – MFM: 250 KHz – 300 rpm – 800KB 80/2/18x256 – MFM: 250 KHz – 300 rpm – 720KB 80/2/16x256 – MFM: 250 KHz – 300 rpm – 640KB			
OLD & RARE EXAMPLES	80/2/5x1024 – FM: 250 KHz – 300 rpm – 800KB 80/2/18x256 – FM: 250 KHz – 300 rpm – 720KB 80/2/32x128 – FM: 250 KHz – 300 rpm – 640KB 80/2/16x128 – FM: 125 KHz – 300 rpm – 320KB			
Need more?	Ask customer suppo	ort for help in identifying your floppy disk!		

"Is EMUFDD compatible with my machinery?"

"Yes, because EMUFDD it's the best existing professional emulation product. We will:

- provide you extensive pre-selling support and specifically analyze your target;
- configure a 100% custom EMUFDD solution, just for you;
- help you remotely during the installation, using live Skype connection."



Gallery of custom EMUFDD installations worldwide

EMUFDD v31 – Network User Manual - Last Revision February 2022

Section 2. HARDWARE INSTALLATION



EMUFDD installation works like any other real floppy drive installation:

• 2.1) connect the power supply;

\circ	=	+12V power supply (not connected)	Optional
•	=	two GND lines (joined, connect one or both)	Required
•	=	+5V power supply	Required

- 2.2) connect the 34pin flat cable.
 - = pin-1 mark (flat cable / connector)

No system driver or additional software needs to be installed on the host system.



Be sure to match the connector pin-1 mark with the flat cable pin-1 mark !



Sometimes flat cables are inverted. Please check whether the cable is coloured/marked at pin-1 (standard) or pin-34 (inverted) !





EMUFDD is a true Ethernet 10Mb full-duplex device:

- full POSIX / WinSock 2 software compatibility on the PC server;
- full TCP/IP & RJ45 hardware compatibility on the EMUFDD;
- **no need** to install any extra driver on both the PC server and the machinery;
- **no need** to install any extra hardware on both the PC server and the machinery.
- 3.1) after hardware installation connect (using the RJ45 front connector) all the EMUFDDs to the local network, that will be using only static IP addresses (WINXP, WIN7). It's possible to use many EMUFDDs, grouped using a network switch/router. It's also possible to use a single EMUFDD, connected point-to-point to the PC server;



Point-to-point connection (1 EMUFDD)

• 3.2) each EMUFDD needs to be configured with an IPv4 address, the local network submask and, in case you're using a router, the router/gateway address. The configuration is loaded into the EMUFDD using a "emufdd.tcp" text file, on a USB key. Plug the USB key in, press LOAD and wait until the device will auto-reset (all leds blink very fast);



[emi]=xxx.xxx.xxx.xxx;
[emp]=xxx;
[pci]=0.0.0.0;
[pcp]=0;
[sub]=xxx.xxx.xxx.xxx;
[gtw]=xxx.xxx.xxx.xxx;
#

- \leftrightarrow IPv4 address of EMUFDD
- \leftrightarrow Port of EMUFDD (0=1024 default)
- \leftrightarrow (*Reserved for advanced custom features*)
- $\leftrightarrow \qquad (Reserved for advanced custom features)$

emufdd.tcp - Notepad ile Edit Format <u>V</u>iew <u>H</u>elp

[emi]=192.168.1.2;

[emp]=1234; [pci]=0.0.0.0; [pcp]=0; [sub]=255.255.255.0;

[gtw]=192.168.1.1;#

- \leftrightarrow IPv4 subnet network mask
- \leftrightarrow IPv4 address network gateway
- \leftrightarrow End of configuration file

🖻 emufdd.tcp - Notepad 📃 🗖 🔀	<
Eile Edit Format Yiew Help	
[emi]=192.168.1.2;	~
[emp]=0;	
[pci]=0.0.0.0;	
[pcp]=0;	
[sub]=255.255.255.0;	
[atw]=0.0.0.0;#	
	2

Example 1: *Minimum settings* + *default EMUFDD port* + *no gateway* Example2: *Full settings* + *custom EMUFDD port* + *network gateway*

• 3.3) each EMUFDD can be reconfigured how many times you need and you're completely free to change the local network at any time. To check that the EMUFDD is correctly configured you can use the standard "**ping**" (check IP address) and "**arp**" (check MAC address) DOS commands;

📾 Command Prompt	- 🗆 🗙		
C:\>ping 192.168.1.2			
Pinging 192.168.1.2 with 32 bytes of data:			
Reply from 192.168.1.2: bytes=32 time<1ms TTL=64 Reply from 192.168.1.2: bytes=32 time<1ms TTL=64 Reply from 192.168.1.2: bytes=32 time<1ms TTL=64 Reply from 192.168.1.2: bytes=32 time<1ms TTL=64			
Ping statistics for 192.168.1.2: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = Oms, Maximum = Oms, Average = Oms			
C:\≻arp −a			
Interface: 192.168.1.1 0x4 Internet Address Physical Address Type 192.168.1.2 12-34-56-78-9a-bc dynamic			

• 3.4) download the latest network software, always & freely available. The software is completely portable, doesn't need any installation and can run in user mode. All your settings will be saved in a "emufdd.ini" file (don't delete it !);

📕 EMUFDD 5.30 - Ethernet Control Panel	
Machinery #1	[1] Config [2] Load & Save [3] Script < < Network Configuration > >
	Connection Name: <a>New Device>
	EMUFFD NetAddr. 192 168 1 2 : 0
	PC NetAddr. 0 0 0 0 : 0
	Force CRC Check 🔲 MBR Type Unknown Custom 🖃
New Delete Up Down	< < EMUFDD Configuration > > Password OFF -> ON
Current Floppy:	
Current Config:	Configuration Upgrade
Current Status: Device not configured	
Save Configuration Changes Stop	Homepage & Support

- 3.5) run "EmufddEthPanel". For each EMUFDD connected to the local network apply the following configuration steps:
 - Click <u>New</u> and a new EMUFDD connection will be created;
 - Go to the [1] Config right panel;
 - Change the <u>Name</u> (<New Device>) with the name of the machinery;
 - Insert the EMUFDD's IPv4 network address and port in <u>EMUFDD NetAddr</u>; (see 3.2 "emufdd.tcp": [emi] = xxx.xxx.xxx; [emp] = xxx;)
 - If you have more than one network interface on your PC, then insert its IP address in <u>PC NetAddr</u>. Otherwise leave 0.0.0.0:0 = default network;
 - Click <u>Select EMUFDD Configuration</u> and select the .cfg file that the customer assistance will send you, to connect to the machinery;
 - •

Now the EMUFDD connection is configured.

Section 4. WIRELESS NETWORKING

EMUFDD is a true Ethernet 10Mb full-duplex device and is transparent to any standard wireless bridge and/or extension. Customers can ask to get our official wireless extension or install any off-the-shelf full duplex product.



Example: Different machinery #1 (= plastic injection), #2 (= EDM), #3 (= robot) and #4 (= wood working) are uniformly connected to the same WLAN. Machinery operator is able to access locally, in front of the machinery, all the programs that are phisically stored only in the remote server. Extremely easy and fast uploading and downloading, using any common Windows based tablet.

Section 5. INTRODUCTION & EMULATION CYCLE



EMUFDD is equipped with 1.5 MB of internal **FRAM** non-volatile memory:

- **no need** to keep the USB key plugged in;
- top-quality data storage and memory **reliability** (10¹⁴ read/write cycles);
- **unlimited** permanent internal memory (no battery, fully RoHS).

More than 50 years of non-stop read/write emulation at full speed.

Each EMUFDD can be used by different users with different skills:

- **normal** users can be allowed to load-only floppy disks (playback);
- **advanced** users can have full access to the program floppy disks;
- special floppy disks can be **permanently** write protected;
- **simplified** access available: 1 USB key = 1 floppy disk.

Just ask for your version, fully customized for your everyday's usage !

At power-on EMUFDD immediately (less than 500ms) begins its emulation cycle:

• the emulation engine waits for reading or writing requests from the host system, and any read/write floppy disk access will turn the ACT LED on;



• the display continuously shows the On-Line sequence: [-] / [-].



Section 6. SOFTWARELESS MODE STORAGE

Data can be loaded/saved into/from EMUFDD's memory using the network software. No special partitioning is needed to access and copy'n'paste all the floppy disks. The softwareless mode, a.k.a. "**Translation**", reads/saves all the floppy disks from/to subdirectories on the PC server and each one will be handled as the root of a different floppy disk:



PC	
\example_	_floppy\dir1\file1.ext
Javampla	floppy/dir2/file2 ext

1 _ 115
\example_floppy\dir2\file2.ext
\example_floppy\file3.ext
\example_floppy\file4.ext

\rightarrow	EMUFDD
→	A:\dir1\file1.ext
\rightarrow	A:\dir2\file2.ext
\rightarrow	A:\file3.ext
→	A:\file4.ext

The translation feature:

- is available for 360 KB, 720 KB, 1.200 MB, 1.440 MB floppy disks;
- is available for both loading and saving;
- will preserve long filenames;
- will preserve all the hidden/read-only/system attributes.

EMUFDD v31 – Network User Manual - Last Revision February 2022





[top window]the PC server[bottom window]EMUFDD (A:) in the machinery





[top window]the PC server[bottom window]EMUFDD (A:) in the machinery

) Properties ?	CPYTECA.CME) Properties
General Comp	patibility	General Com	patibility
-	CPYTECA.CMD	-	CPYTECA.CMD
Type of file:	Windows NT Command Script	Type of file:	Windows NT Command Script
Description:	CPYTECA	Description:	CPYTECA
Location:	G:\Programs\Machinery 01\System Floppy	Location:	A:\
Size:	259 bytes (259 bytes)	Size:	259 bytes (259 bytes)
Size on disk:	4,00 KB (4.096 bytes)	Size on disk:	512 bytes (512 bytes)
Created:	lunedi 14 maggio 2012, 22.17.32	Created:	lunedi 14 maggio 2012, 22.17.32
Modified:	mercoledì 16 ottobre 1996, 14.28.08	Modified:	mercoledì 16 ottobre 1996, 14.28.08
Accessed:	martedi 15 maggio 2012	Accessed:	martedi 15 maggio 2012
Attributes:	Read-only Hidden Archive	Attributes:	<u>R</u> ead-only <u>H</u> iddenArchive
	OK Cancel Apply		
Type: Windows N1	Command Script Date Modified: 16/10/1996 14.28	Size: 259 bytes	259 bytes 🔡 My Computer

A diff between the original **disk#00** in the PC server (...\System Floppy\cpyteca.cmd) and its "translated" version by EMUFDD (A:\cpyteca.cmd) shows that there's no high-level difference in the directory structure and the attributes of each file:

Name / Size / Creation time / Modify time / Access time

Section 7. VIRTUAL-FLOPPY MODE STORAGE

Data can be loaded/saved into/from EMUFDD's memory using the network software. No special partitioning is needed to access and copy'n'paste all the floppy disks. The virtual-floppy mode, a.k.a. "**ISO FLOPPY IMAGE FILES**", reads/saves all the floppy disks from/to image files on the PC server (mounted using free software VFD) and each "**.img**" file will be handled as the low-level snapshot of a different floppy disk:



Virtual-Floppy image files:

- are available for both loading and saving;
- are a low-level snapshot of the floppy disk surface;
- allow unlimited emulation of any floppy disk (system, bootable, custom, ...);
- can be directly mounted as virtual floppy drives by free software VFD;
- can be directly imported as backups of real floppies by free software OmniFlop.

 $EMUFDD \ v31-Network \ User \ Manual \ - \ Last \ Revision \ February \ 2022$





[top window]the PC server[bottom window]EMUFDD (A:) in the machinery





[top window]VFD (B:) in the PC server[bottom window]EMUFDD (A:) in the machinery



CPYTECA.CME) Properties ?	СРУТЕСА.СМІ	D Properties
General Comp	patibility	General Com	patibility
\$	CPYTECA.CMD	4	CPYTECA.CMD
Type of file:	Windows NT Command Script	Type of file:	Windows NT Command Script
Description:	CPYTECA	Description:	CPYTECA
Location:	B:\	Location:	A:\
Size:	259 bytes (259 bytes)	Size:	259 bytes (259 bytes)
Size on disk:	512 bytes (512 bytes)	Size on disk:	512 bytes (512 bytes)
Created:	lunedi 14 maggio 2012, 22.17.32	Created:	lunedi 14 maggio 2012, 22.17.32
Modified:	mercoledì 16 ottobre 1996, 14.28.08	Modified:	mercoledi 16 ottobre 1996, 14.28.08
Accessed:	martedi 15 maggio 2012	Accessed:	martedi 15 maggio 2012
Attributes:	Bead-only Hidden ✓Archive	Attributes:	<u>R</u> ead-only <u>H</u> idden ✓Archive
	OK Cancel Apply		
Type: Windows N1	Command Script Date Modified: 16/10/1996 14.28	Size: 259 bytes	259 bytes 🔡 My Computer 🛒

A diff between the original **disk#00** in the PC server (B:\cpyteca.cmd) and its "translated" version by EMUFDD (A:\cpyteca.cmd) shows that there's no high-level and low-level difference in the directory structure and the attributes of each file:

Name / Size / Size on disk / Creation time / Modify time / Access time

 $EMUFDD \ v31-Network \ User \ Manual \ - \ Last \ Revision \ February \ 2022$

EMUFDD 5.29 - Ethernet Control Panel	
Machinery #1 - DIR	[1] Config [2] Load & Save [3] Script
Machinery #1 - IMG	< < Subdirectory Mode > >
	Load from PC to EMUFDD
	< < ISO Image Mode > >
	Load from IMG to EMUFDD
New Delete Up Down	
Current Floppy: G:\tmp\test\Test_Folder_1\	<< Special Functions >>
Current Config: [DIR=1440 KB] G:\tmp\Machinery_	Quick Format
Current Status: Sending Floppy Disk 50%	
Save Configuration Changes Stop	Homepage & Support

- Select a <u>CONFIGURED CONNECTION;</u>
- Go to the [2] Load & Save right panel;
- Click Load from PC to EMUFDD and select a subdirectory (softwareless mode) or Load from IMG to EMUFDD and select a .img file (virtual-floppy mode) that you want to send to the machinery. Quick Format is available only in softwareless mode;
- The software will immediately start the network connection, if (1) the IP address is not being used by another connection and (2) the source is not being written by another connection;

The icon, during the connection, will change. If the connection is hanging up, you can stop it at any moment clicking <u>Stop</u>.



Loading completely overwrites EMUFDD's internal memory. The previous floppy, if not backed up before, can't be recovered !

🖬 EMUFDD 5.29 - Ethernet Control Panel				
Machinery #1 - DIR	Browse for Folder			
Machinery #1 - IMG	Select a Folder			
	G:\tmp\test\Test_Folder_1	Save from EMUFDD to PC		
New Delete		Save from EMUFDD to IMG		
Current Floppy: E:\Usr\EmuF	unidesam ⊡⊡ USS ····⊡ wega			
Current Config: [DIR=1440 K				
Current Status: DIR - D	OK Cancel			
Save Configuration Changes	Stop	Homepage & Support		

Example 1: SoftwareLess Mode Storage Loading from "...\Test_Folder_1\"

EMI	Select a Virtual	Floppy Image File	? 🗙 🗆 🗡
	Look jn:	🔁 test 💽 🔶 🛱 🎫 🗸	
	📁 Recent	Test_Folder_1 Test_Floppy_1.img	
	Desktop		
	My Documents		
Ne Curre	My Computer		
Curre Curre	S		
Sav	My Network Places	File name: I test_Floppy_1.img Files of type: Virtual floppy image files (.img)	Dancel

Example 2: VIRTUAL-FLOPPY MODE STORAGE Loading from "...\Test_Floppy_1.img"

H EMUFDD 5.29 - Ethernet Control Panel	
Machinery #1 - DIR	[1] Config [2] Load & Save [3] Script
Machinery #1 - IMG	< < Subdirectory Mode > >
	Load from PC to EMUFDD
	< < ISO Image Mode > >
	Load from IMG to EMUFDD
New Delete Up Down	
Current Floppy: G:\tmp\test\Test_Folder_1\	< < Special Functions >>
Current Config: [DIR=1440 KB] G:\tmp\Machinery_	Quick Format
Current Status: Receiving Floppy Disk 50%	
Save Configuration Changes Stop	Homepage & Support

Section 9. SAVING FROM EMUFDD'S MEMORY TO PC SERVER

- Select a <u>CONFIGURED CONNECTION;</u>
- Go to the [2] Load & Save right panel;
- Click <u>Save from EMUFDD to PC</u> and select/create a subdirectory (softwareless mode) or <u>Save from EMUFDD to IMG</u> and select a .img file (virtual-floppy mode) that you want to receive from the machinery;
- The software will immediately start the network connection, if (1) the IP address is not being used by another connection and (2) the destination is not being read/written by another connection;



The icon, during the connection, will change. If the connection is hanging up, you can stop it at any moment clicking <u>Stop</u>.



Saving completely overwrites PC server's destination. The previous floppy, if not backed up before, can't be recovered !

EMUFDD 5.29 - Ethernet Control Panel				
Machinery #1 - DIR	Browse for Folder			
Machinery #1 - IMG	Select a Folder			
	G:\tmp\test\Test_Folder_1 Save from EMUFDD to PC			
	probid			
	→ Conce			
	Save from			
New Delete	tibor truong			
Current Floppy: E:\Usr\EmuF	· · · · · · · · · · · · · · · · · · ·			
Current Config: [DIR=1440 K	l l l l l l l l l l l l l l l l l l l			
Current Status: DIR - D	OK Cancel			
Save Configuration Changes	Stop Homepage & Support			

Example 1: SoftwareLess Mode Storage Saving to "...\Test_Folder_1\"

🖬 EMI	Select a Virtual	Floppy Image File	? 🛛 🖻	×
	Look jn:	🔁 test 💽 🔶 🖽 📰 🗸		
	📁 Recent	Test_Folder_1 Test_Floppy_1.img		
	Desktop			
	My Documents			
Ne Curre	My Computer			
Curre				
Sav	My Network Places	File name: Test_Floppy_1.img Files of type: Virtual floppy image files (.img)	<u>)</u> pen Cancel	

Example 2: VIRTUAL-FLOPPY MODE STORAGE Saving to "...\Test_Floppy_1.img"

Appendix A. SUPPORTED FLOPPY DISK DRIVE INTERFACES



34pin 3.5" floppy: Supported



50pin SCSI floppy: Supported





26pin floppy: Supported



5.25" & 8" floppy: Supported

26pin slim floppy: Supported



USB 1.0 floppy: Supported

The bullet-proof EMUFDD emulation is available on all the known floppy disk drive interfaces, from the oldest ones to the most modern ones. Supported interfaces are emulated with a wide portfolio of solutions: (1) being natively supported; (2) using custom adapters manufactured by us; (3) using industry-strenght standard adapters.



<u>Appendix B.</u> <u>WINXP – GET/ASSIGN A STATIC IP ADDRESS</u>

[Network Architecture 1] Assign a static IP address to your PC

• Open the PC "Control Panel" and select "Network Connections". Choose your "Local Area Connection" and right-click for its properties;



	1	
S Network Connections		
LAN or High-Speed Int	ternet	
Local Area Co Connected Realtek RTL81	nnection Disable Status Repair Bridge Connections Create Shortcut Delete Rename Properties	

• Select the "Internet Protocol (TCP/IP)", click on its properties and assign a static IP address and the local network subnet mask.

🛨 Local Area Connection Properties 🛛 🔹 🛛
General Authentication Advanced
Connect using:
Realtek RTL8168C(P)/8111C(P) PCI- Configure
This connection uses the following items:
File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Internet Protocol (TCP/IP)
Install Uninstall Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Sho <u>w</u> icon in notification area when connected Notify <u>m</u> e when this connection has limited or no connectivity
OK Cancel

Internet Protocol (TCP/IP) Properties					
General					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
O <u>O</u> btain an IP address automatically	,				
O Use the following IP address: —					
IP address:	192.168.1.1				
S <u>u</u> bnet mask:	255 . 255 . 255 . 0				
Default gateway:	Default gateway:				
O <u>D</u> tain DNS server address autom	atically				
Output the following DNS server add ● Output the following DNS server add	resses:				
Preferred DNS server:					
<u>A</u> lternate DNS server:	· · ·				
Ad <u>v</u> anced					
OK Cancel					

[Network Architecture 2] Get your current network configuration from DHCP

• Open the PC "Control Panel" and select "Network Connections". Choose your "Local Area Connection" and right-click for its status;



• Select the "Support", and get your current network configuration from DHCP. EMUFDD will be assigned same "Subnet Mask", same "Default Gateway", and next available "IP address" (to be reserved by you as static fixed one).

🕹 Local Ar	ea Connection Status	?
General S	upport	
Connect	ion status	
🛛 🕵	Address Type:	Assigned by DHCP
- C-	IP Address:	192.168.1.128
	Subnet Mask:	255.255.255.0
	Default Gateway:	192.168.1.254
	<u>D</u> etails	
Windows connectio Repair.	did not detect problems with this m. If you cannot connect, click	Repair
		<u><u>C</u>lose</u>

Appendix C. WIN7 & WIN8 – GET/ASSIGN A STATIC IP ADDRESS

[Network Architecture 1] Assign a static IP address to your PC

• Open the PC "Control Panel" and select "Network and Internet";



• Open the "Network and Sharing Center" subsection;



• Open the "Change adapter settings" subsection;



EMUFDD v31 - Network User Manual - Last Revision February 2022

• Choose your "Local Area Connection" and right-click for its properties;



• Select the "Internet Protocol Version 4 (TCP/IPv4)", click on its properties and assign a static IP address and the local network subnet mask.

📱 Local Area Connection Properties
Networking
Connect using:
VMware Accelerated AMD PCNet Adapter
<u>C</u> onfigure
This connection uses the following items:
Client for Microsoft Networks
QoS Packet Scheduler
Hie and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
Ink-Layer Topology Discovery Mapper I/O Driver
Install
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

Int	ternet Protocol Version 4 (TCP/IPv4)	Properties ?
(General	
	You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.	natically if your network supports ask your network administrator
	Obtain an IP address automatical	y .
	• Use the following IP address:	
	IP address:	192.168.1.1
	S <u>u</u> bnet mask:	255.255.255.0
	Default gateway:	· · ·
	Obtain DNS server address autom	natically
	• Use the following DNS server add	resses:
	Preferred DNS server:	
	<u>A</u> lternate DNS server:	· · ·
	Validate settings upon exit	Advanced
		OK Cancel

[Network Architecture 2] Get your current network configuration from DHCP

• Choose your "Local Area Connection" and right-click for its status;



• Select the "Details", and get your current network configuration from DHCP. EMUFDD will be assigned same "IPv4 Subnet Mask", same "IPv4 Default Gateway", and next available "IPv4 address" (to be reserved by you as static fixed one).

📱 Local Area Connection Status 🛛 🔀	
General	
Connection	
IPv4 Connectivity: Internet	
IPv6 Connectivity: No Internet access	
Media State: Enabled	
Duration: 00:09:07	
Speed: 100.0 Mbps	
Details	
Activity	
Sent — 駴 — Received	
Bytes: 89.373 150.455	
Properties Diagnose Diagnose	
Close	

Property	Value	4
Connection-specific DN	fastwebnet.it	
Description	Realtek RTL8168C(P)/8111C(P) Fami	
Physical Address	00-22-15-E0-CE-26	
DHCP Enabled	Yes	
IPv4 Address	192.168.1.128	
IPv4 Subnet Mask	255.255.255.0	
Lease Obtained	lunedì 24 marzo 2014 23:34:14	
Lease Expires	martedì 25 marzo 2014 00:04:38	Ĩ
IPv4 Default Gateway	192.168.1.254	
IPv4 DHCP Server	192.168.1.254	
IPv4 DNS Servers	62.101.93.101	
	83.103.25.250	
IPv4 WINS Server		
NetBIOS over Tcpip En	Yes	
Link-local IPv6 Address	fe80:f147:c655:1ea4:5acb%14	Ē
IPv6 Default Gateway		-
< III	•	