# Using GadgetPC as a File Server

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#### Overview

GadgetPC can be used as a light-duty file server.

GadgetPC Linux has a built-in web server ( httpd ) based on the popular open-source Apache web server.

### Parts Required

- 1 x GadgetPC
- 1 x ADP-5V1A-MiniUSB Power Adapter
- 1 x DUB-E100 Ethernet card
- 1 x Ethernet Cable
- 1 x USB Flash Drive running Linux ( optional )

Connect the various components as shown in *Figure 1*.

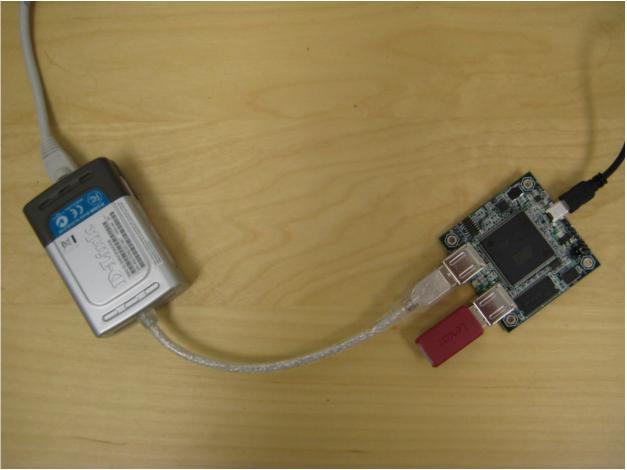
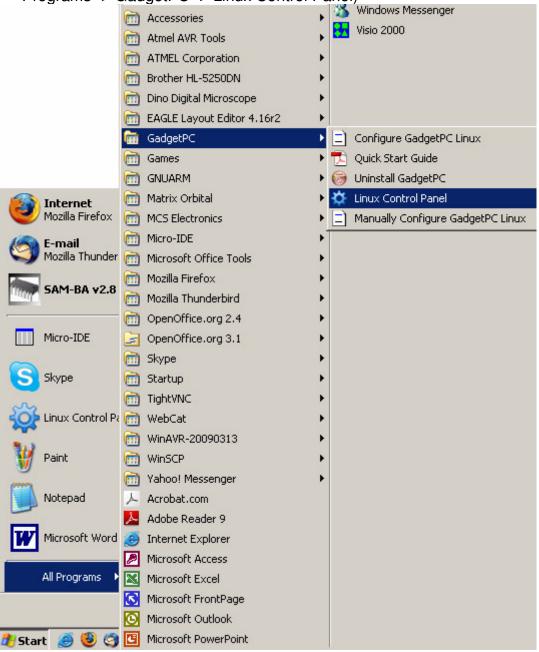


Figure 1.

### Software Setup

We need to edit the Linux vars.sh file to enable certain configuration options.

1) Open Linux Control Panel that comes with GadgetPC setup. (Start Menu -> All Programs -> GadgetPC -> Linux Control Panel)



💱 Linux Control Panel	_ 🗆 🛛
File View Help	
🛛 📂 🖬 🖉 🗸	
Ready	CAP NUM SCRL

2) Click File -> Open. By default, program will start from folder where GadgetPC was installed. Go to **sh** folder and select **vars.sh** file.

Open					? 🔀
Look jn:	🔁 sh		•	🗢 🗈 💣 🎟 •	
<u>i</u>	] ftp_server.sh ] init_at91sam		<pre>spca_video_serve ssh_server.sh</pre>	er.sh	
My Recent Documents	init_dlink_usb		] system.sh		
	init_dlink_usb		] telnet_server.sh ] usb_utils.sh		
Decision	init_ftdi_usb_	serial.sh	user_cmds.sh		
Desktop	init_gspca_us	b_webcam.sh ;74_sh	<pre>vars.sh web_server.sh</pre>		
My Documents	init_microsd.s init_ports.sh mail_agent.sh	h 1		Type: UNIX Shell Do Date Modified: 6/30/ Size: 2.40 KB	
	motion_serve				
My Computer					
<b></b>	File <u>n</u> ame:	vars.sh		•	<u>O</u> pen
My Network Places	Files of <u>type</u> :	Unix Shell fi	les (*.sh)	•	Cancel
Fidues		🗖 Open as	read-only		



3) Double-click Hardware and Peripherals and enable DUB-E100 (Turned ON).

٧a	ariables Dialog	×
Ξ	Network	
	DM9161A Ethernet adapter	OFF
	D-Link DUB-E100 Ethernet Adapter	ON
	D-Link WUA-1340 USB Wi-Fi adapter	OFF
	Sierra Compass855 AirCard USB Modem	OFF
Ξ	I/O Subsystem	
	FTDI USB serial adapter	OFF
	PCF857412C Controller on MINI-MAX/ARM9 Series Boards	OFF
	Initialize unused I/O ports on the hardware	YES
Ξ	Peripherals	
	GSPCA USB web camera	OFF
	ADC hardware on MINI-MAX/ARM9 Series Boards	OFF
	Mount MicroSD	NO
	USB to SERIAL generic adapter	OFF
	Vendor code for USB to SERIAL generic adapter	0x12d1
	Product code for USB to SERIAL generic adapter	0x1001

4) Double-click **Network** and assign an IP address, subnet mask, and gateway IP address under **TCP/IP Options**.

	Network	
	Install PPP	NO
Ξ	GPRS Connection	
	Start Life;) GPRS Internet Connection	NO
	Send PIN code to unlock SIM card in GPRS modem	NO
	PIN code of SIM card	1111
	GPRS device name	/dev/ttyUSB3
	Delay before sending PIN (in seconds)	3
	Delay for registration modem on GPRS network (in seconds)	15
	Delay before start PPP service (in seconds)	3
Ξ	TCP/IP Options	
	IP Address of Device	192.168.1.26
	Subnet Mask	255.255.255.0
	IP Address of Gateway	192.168.1.254
Ξ	3G Connection	
	Start People.Net 3G Internect Connection	NO
	Delay before start 3G connection (in seconds)	45
	Delay after start 3G connection (in seconds)	3
	3G device name	/dev/ttyUSB0
Ξ	DynDNS	
	Username for dyndns.org account	GadgetPC
	Pasword for dyndns.org account	gadgetpcpassword
	Update period (in milliseconds)	600000
	Alias for the host	gpcgprs.dyndns.org
	Path to logging file	/mnt/usb/inadyn/log/inadyn.log

5) Double-click **Software** and enable **Run FTP Server** (set to YES).

Run SPCA Video Server         Image: Server         Run Telnet Server         Run Telnet Server         Image: Server         Image: Server         Run Web HTTP Server         Path to configuration file         HTTP port         Image: Server         Run Motion Server         Run FTP Server         FTP server         FTP username         FTP password         Source path to configuration file         Image: OpenSSH Server         Port of SSH server	YES /mnt/usb/httpd/httpd.conf 80 NO YES ftp ftppassword	
Run Telnet Server         USB Utilities         Create links to support USB util         Web HTTP Server         Run Web HTTP Server         Path to configuration file         HTTP port         Motion Server         Run Motion Server         Run FTP Server         FTP username         FTP password         Source path to configuration file         USB Utilities         HTTP Server         Run FTP Server         Run Support USB USB	tilities YES YES /mnt/usb/httpd/httpd.conf 80 ///////////////////////////////////	
<ul> <li>USB Utilities Create links to support USB utilities</li> <li>Web HTTP Server</li> <li>Run Web HTTP Server</li> <li>Path to configuration file</li> <li>HTTP port</li> <li>Motion Server</li> <li>Run Motion Server</li> <li>FTP Server</li> <li>Run FTP Server</li> <li>FTP username</li> <li>FTP password</li> <li>Source path to configuration fil</li> <li>OpenSSH Server</li> <li>Run OpenSSH Server</li> </ul>	tilities YES YES /mnt/usb/httpd/httpd.conf 80 ///////////////////////////////////	
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<ul> <li>Web HTTP Server</li> <li>Run Web HTTP Server</li> <li>Path to configuration file</li> <li>HTTP port</li> <li>Motion Server</li> <li>Run Motion Server</li> <li>FTP Server</li> <li>Run FTP Server</li> <li>FTP username</li> <li>FTP password</li> <li>Source path to configuration fil</li> <li>OpenSSH Server</li> <li>Run OpenSSH Server</li> </ul>	YES /mnt/usb/httpd/httpd.conf 80 NO YES ftp ftppassword	
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FTP username FTP password Source path to configuration fil OpenSSH Server Run OpenSSH Server	ftp ftppassword	_
FTP password Source path to configuration fil OpenSSH Server Run OpenSSH Server	ftppassword	-
Source path to configuration fil DpenSSH Server Run OpenSSH Server		
OpenSSH Server     Run OpenSSH Server	ile for FTP server /mnt/usb/vsftpd/vsftpd.conf	
Run OpenSSH Server		
Port of SSH server	YES	
1 OK OF 3 STT SERVER	22	
SSH username	sshd	
SSH password	sshdpassword	
Path to file with Host key for S	SH /mnt/usb/openssh/etc/ssh	
Path to file with DSA key for S	SSH /mnt/usb/openssh/etc/ssh	
Path to file with RSA key for S	SH /mnt/usb/openssh/etc/ssh	
Path to configuration file for mo	otion server /mnt/usb/motion/etc/motion.	-

6) Double-click **System** and assign a root password.

Variables Dialog	
Drivers	
Source path of system drivers	/mnt/usb/drivers
Destination path of system drivers	/lib/modules/2.6.24
🗆 System Users	
Password for user root	newpassword

7) Save the vars.sh file.

**NOTE:** Every time you access vars.sh file, you either need to have a temporary copy on your computer so that you can replace the actual copy on the USB Flash Drive or remove the USB Flash Drive from the GadgetPC and insert the USB Flash Drive into the computer for direct editing.

8) Insert the USB Flash drive to GadgetPC.

9) Apply or cycle power to GadgetPC (Turn OFF/ON).

10) After about 30-45 seconds, Linux will boot up and your File Server is ready.

11) You may open a browser and type in your IP to make sure the web interface of the File Server is working.

😻 GadgetPC WebServer Start Page - Mozilla Firefox	
Eile Edit View History Bookmarks Iools Help	0 0 0 0 0 0
C         ×         ∧ <a> http://192.168.1.210/</a> ☆         C • Google	P
🙋 Most Visited 🌸 Getting Started 🔝 Latest Headlines	

GadgetPC WebServer Start Page

You should replace this page with your own page. It will be opened when user access your web server.

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## Accessing FTP with FileZilla

1) Download the latest free FileZilla FTP client:

https://www.ohloh.net/projects/filezilla/download?filename=FileZilla 3.2.6.1 win32setup.exe

2) Start FileZilla, specify the Host to connect to FTP by typing ftp://xxx.xxx.xxx.xxx (where xxx.xxx.xxx.xxx is your IP address you assigned), Username, Password, and Port (default: 21). Then, click Quickconnect.

File Edit View Transfer S	e <b>Zilla</b> Server Bookmarks Help							_ 6
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Host: 192.168.1.26	Username: root	Pass <u>w</u> ord:	Port	:: Duick	connect 👻			
esponse: 150 Here cor esponse: 226 Director	mes the directory listing.							
	imezone offset of server							
ommand: MDTM UserIr								
esponse: 213 2009070 tatus: Timezone off		ocal: -18000 seconds. Difference		ids.				
	ting successful	ical. 10000 Seconds. Difference	. 10000 30001					
ocal site: C:\			•	Remote site: /mr	nt/usb			
🖃 🞯 Desktop				E 🕜 /				
My Documents				🖻 🕜 mnt				
🗄 🧕 My Computer				🕀 🗀 Us	ъ			
🕀 🥪 C:								
in D:	4.01.2							
🕀 🛫 Y: (\\192.168.	1.9\c)							
				ļ				1
ilename /	Filesize Filetype	Last modified	<u> </u>	Filename A	Filesize Filetype	Last modified	Permissions	Owner/Grou
 ]_1.02	File Folder	10/10/2008 12:33:		bin	File Folder	7/8/2009 5:01:	deuxe ve v	00
	File Folder	10/7/2008 2:15:52 PM			File Folder	7/8/2009 5:01:		00
bipom	File Folder	6/25/2009 11:53:1		anvers Defax	File Folder	7/8/2009 5:01:		00
bluetooth bluesoleil	File Folder	6/30/2009 10:36:2		freetype	File Folder	7/8/2009 5:01:		00
CD1	File Folder	6/23/2009 5:29:40 PM		Help	File Folder	7/8/2009 5:01:		00
Documents and S	File Folder	9/5/2008 4:48:01 PM		httpd	File Folder	7/8/2009 5:01:		00
adgetpc_samba	File Folder	11/30/2008 12:22:		inadyn	File Folder	7/8/2009 5:01:		00
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	File Folder							
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GadgetPC_SDRAM Inuxbin Program Files RECYCLER 5 files and 17 directories. Tota	File Folder File Folder File Folder	11/30/2008 2:49:3 7/28/2009 5:24:45 PM 9/10/2008 7:55:18 PM	<u> </u>	ibusb		7/8/2009 5:01:		00
GadgetPC_SDRAM Inuxbin Program Files RECYCLER 5 files and 17 directories. Tota	File Folder File Folder File Folder al size: 1,565,005,958 bytes	11/30/2008 2:49:3 7/28/2009 5:24:45 PM 9/10/2008 7:55:18 PM s		libusb	File Folder	7/8/2009 5:01:		00
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GadgetPC_SDRAM Inuxbin Program Files RECYCLER 5 files and 17 directories. Tota	File Folder File Folder File Folder al size: 1,565,005,958 bytes	11/30/2008 2:49:3 7/28/2009 5:24:45 PM 9/10/2008 7:55:18 PM s		libusb	File Folder	7/8/2009 5:01:		00
GadgetPC_SDRAM Inuxbin Program Files RECYCLER 5 files and 17 directories. Tota	File Folder File Folder File Folder al size: 1,565,005,958 bytes Direction Remote	11/30/2008 2:49:3 7/28/2009 5:24:45 PM 9/10/2008 7:55:18 PM s		libusb	File Folder	7/8/2009 5:01:		00

2b) You can also connect with SFTP (Secure FTP) via SSH port 22 (optional).

3) You should successfully be connected to GadgetPC FTP service.

# Accessing FTP with **Command Line**

1) Open **Command Line** (Start menu -> Run -> "cmd").

2) Type the following: ftp://xxx.xxx.xxx where xxx.xxx.xxx is your IP address you assigned).

3) Enter your username and password.

🐼 C:\WINDOWS\system32\cmd.exe - ftp 192.168.1.26	
Microsoft Windows XP [Version 5.1.2600]	
(C) Copyright 1985-2001 Microsoft Corp.	
C:\Documents and Settings\Hakan>ftp 192.168.1.26	
Connected to 192.168.1.26.	
220 Welcome to GadgetPC FTP service.	
User (192.168.1.26:(none)): root	
331 Please specify the password.	
Password:	
230 Login successful.	
ftp> dir	
200 PORT command successful. Consider using PASV.	
150 Here comes the directory listing.	
drwxr-xr-x 2 0 0 8192 Jul 08 10:01 Help	
drwxr-xr-x 2 0 0 8192 Jan 01 1980 Mail	
-rwxr-xr-x 1 0 00 Jul 08 09:45 UserImages.bmp	
drwxr-xr-x 2 0 0 8192 Jul 08 10:01 bin	
-rwxr-xr-x 1 0 00 Jun 03 15:27 debug.log	
-rwxr-xr-x 1 0 0 4519 Jun 02 14:51 debug2.log	
-rwxr-xr-x 1 0 0 8466 Jun 02 14:53 debug3.log	
-rwxr-xr-x 1 0 0 1971 Jun 03 11:18 debugloop.log	
drwxr-xr-x 2 0 0 8192 Jul 08 10:01 drivers	
drwxr-xr-x 4 0 0 8192 Jul 08 10:01 efax	
drwxr-xr-x 4 0 0 <u>8192</u> Jul 08 10:01 freetype	
-rwxr-xr-x 1 0 0 2609775 Mar 19 09:17 gpcfs.gz	

4) Type 'dir' to see the directory listing of the GadgetPC (optional).

### Accessing FTP with Windows Explorer

1) Open **Windows Explorer** (Start Menu -> All Programs -> Accessories -> Windows Explorer).



2) Connect to **FTP** by typing ftp://root@xxx.xxx.xxx/ and then entering your username and password.

Log On A	5		×
?	Could not login I	to the FTP server with the user name and password specified.	
	FTP server:	192.168.1.26	
	<u>U</u> ser name:	root	
	Password:	•••••••	
	After you log or	, you can add this server to your Favorites and return to it easily.	
Æ	FTP does not er server, To prot (WebDAV) inste	crypt or encode passwords or data before sending them to the ect the security of your passwords and data, use Web Folders ad.	
	Learn more abo	ut <u>using Web Folders</u> .	
	🗌 Log on <u>a</u> nor	ymously 🔽 Save password	
		Log On Cancel	

4) Click Log On and you will have access to GadgetPC FTP.

<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp				_	
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Desktop	in 🔁 bin	File Folder	8/3/2009 11:44 AM		
My Documents	📄 dheped	File Folder	8/3/2009 11:44 AM		
D notes	📄 drivers	File Folder	8/3/2009 11:44 AM		
E Duetooth	📄 efax	File Folder	8/3/2009 11:44 AM		
	📄 freetype	File Folder	8/3/2009 11:44 AM		
Downloads	📄 Help	File Folder	8/3/2009 11:44 AM		
My Music	httpd	File Folder	8/3/2009 11:44 AM		
	inadyn 🚞	File Folder	8/3/2009 11:44 AM		
My Videos	iptables 🔁	File Folder	8/3/2009 11:44 AM		
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C relay4	Contraction Contraction	File Folder	8/3/2009 1:44 PM		
My Computer	libusb	File Folder	8/3/2009 11:44 AM		
S My Computer	loader	File Folder	8/3/2009 11:44 AM		
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C Adobe Reader 9 Installer		File Folder	8/3/2009 11:46 AM		
GadgetPC Docs	interior interior	File Folder	8/3/2009 11:46 AM		
DenOffice.org 2.4 (en-US) Installation Files		File Folder	8/3/2009 11:46 AM		
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		File Folder	8/3/2009 11:47 AM		
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