

CPET 499/ITC 250 Web Systems
Web Server Configuration and Trouble Shooting
September 25, 2018

References

- Apache HTTP Server Project, <http://httpd.apache.org/>
 - Apache httpd 2.4.23 Released, 2016-07-5
 - Apache HTTP 2.4.35 Released, 2018-09-22
- XAMPP Server, <https://www.apachefriends.org/index.html>
 - XAMPP, open source package, is a PHP development environment containing MariaDB, PHP, and Perl
 - XAMPP for Windows 7.2.9 (PHP 7.2.9) 2018-9-24, XAMPP for Linux, and XAMPP for OS X
- Wamp Server, <http://www.wampserver.com/en/>
- **Text book, Chapter 22** Web Server Administration and Virtualization, pp. 1030-1075

Topics on HTTP Web Server

- Configuration
- Virtual Hosts
- Authentication
- Content Description and Modification
- Indexing
- Redirection
- Proxying
- Logging
- Security
- Running a Big Web Site
- Building Applications
- Server-Side Includes
- PHP
- CGI and Perl
- mod_perl
- mod_jserv and Tomcat
- The Apache API
- Writing Apache Modules

Server Administration Knowledge/Skills

- Building, Installation, Upgrading
- Configuration
 - Configuration Files
 - Configuration Sections
- Starting, Stopping, Restarting
- Adding common modules
- Logging
- Virtual Hosts
- Aliases, Redirecting, and Rewriting
- Security

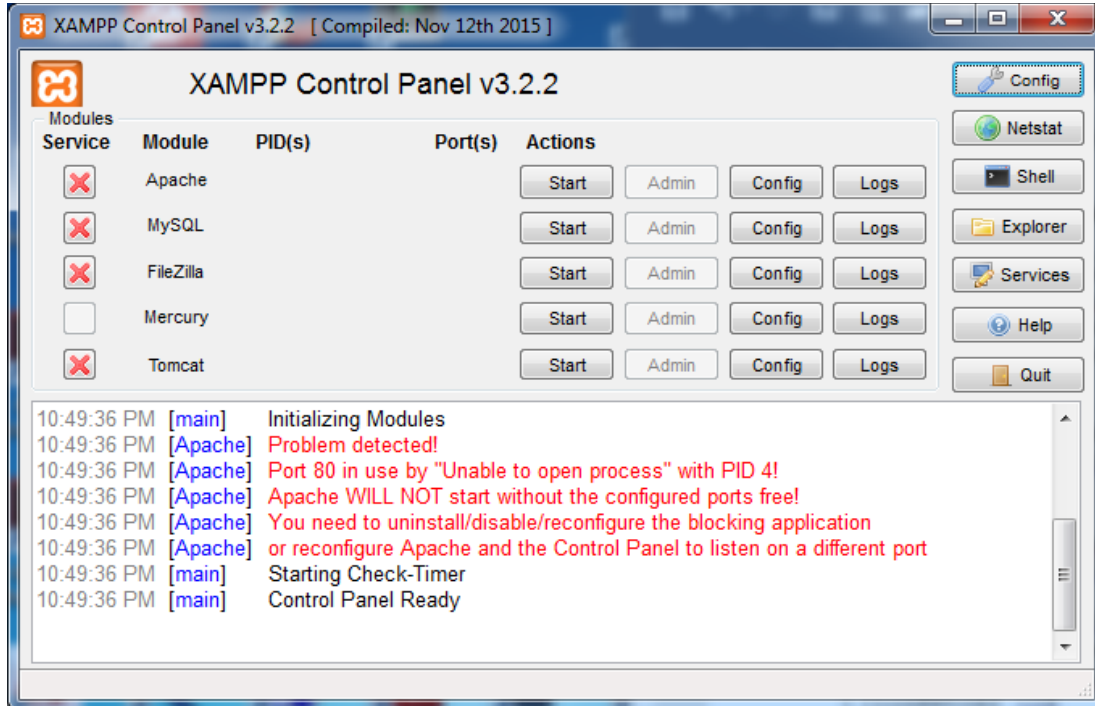
- Installing SSL
- Dynamic Content
 - Enabling CGI scripts, PHP, Perl, Python
- Error Handling
- Proxies
- Performance
- Directory Listings

College ETCS's Apache Web Server

```
[lin@etcs2 ~]$ ls
cgi-bin  home  public_html
[lin@etcs2 ~]$ cd /
[lin@etcs2 /]$ ls
bin    dev  home  lib64  mnt  proc  run   srv  tmp  var
boot  etc  lib   media  opt  root  sbin  sys  usr
[lin@etcs2 /]$ cd home
[lin@etcs2 home]$ ls
bender    elahib    lin      muellerd    raez      student_org
broberg   events    lis      old_homes   rosemb01  swe
cooklevt  hiltona   liuy     oloomi      setzerc   thompsoe
dostalc   klinrj01  luoh     presslem    spirac    vulnscan
dupenb    libii     moors    presslem-ad steffen    yen
[lin@etcs2 home]$ cd lin
[lin@etcs2 ~]$ ls
cgi-bin  home  public_html
[lin@etcs2 ~]$
```

After the XAMPP Server Installation, then Start the XAMPP Program

- Windows Start => XAMPP => XAMPP Control Panel



Apache or XAMPP Startup Problem

See what's Using Port 80:

1) Click Shell on the XAMPP Control Panel

2) netstat -ao

⇒ TCP 0.0.0.0:80 PID 4

Setting environment for using XAMPP for Windows.
Administrator@LIN-PC c:\7.2.8vc15

netstat -ao

Active Connections

Proto	Local Address	Foreign Address	State	PID
TCP	0.0.0.0:80	lin-PC:0	LISTENING	4
TCP	0.0.0.0:135	lin-PC:0	LISTENING	848
TCP	0.0.0.0:445	lin-PC:0	LISTENING	4
TCP	0.0.0.0:1309	lin-PC:0	LISTENING	2668
TCP	0.0.0.0:1332	lin-PC:0	LISTENING	3684
...				
TCP	0.0.0.0:2869	lin-PC:0	LISTENING	4
...				
TCP	0.0.0.0:49326	lin-PC:0	LISTENING	644
TCP	0.0.0.0:50248	lin-PC:0	LISTENING	4
...				
TCP	0.0.0.0:49326	lin-PC:0	LISTENING	644
TCP	0.0.0.0:50248	lin-PC:0	LISTENING	4
TCP	127.94.0.2:946	lin-PC:0	LISTENING	3504
TCP	149.164.237.52:139	lin-PC:0	LISTENING	4
TCP	192.168.1.13:139	lin-PC:0	LISTENING	4

3) Task Manager

System PID 4 +. User Name SYSTEM

Image Name	PID	User Name	CPU	Memory (Private...)	Description
NIWebServiceContainer...	6056	SYSTEM	00	1,868 K	NI Web Service Container
NIWebServiceContainer...	6100	SYSTEM	00	1,412 K	NI Web Service Container
NIWebServiceContainer...	6136	SYSTEM	00	1,760 K	NI Web Service Container
nidmsrv.exe *32	3228	SYSTEM	00	3,648 K	nidmsrv
nipalsm.exe *32	1548	SYSTEM	00	2,168 K	NI-PAL Service Manager
iprntctl.exe	6592	Administrator	00	4,032 K	Novell iPrint Control Utility
iprntlgn.exe	6600	Administrator	00	1,440 K	Novell iPrint Login Monitor
iprntsrv.exe	2648	SYSTEM	00	2,140 K	Novell iPrint Service
System	4	SYSTEM	00	76 K	NT Kernel & System
openvpn.exe *32	9892	SYSTEM	00	2,676 K	openvpn.exe
ovpntray.exe *32	7008	Administrator	00	15,644 K	ovpntray.exe
lkictrl.exe *32	4552	SYSTEM	00	4,040 K	Part of Logos
System Idle Process	0	SYSTEM	98	24 K	Percentage of time the proce
PresentationFontCache...	4576	LOCAL SERVICE	00	8,708 K	PresentationFontCache.exe
ReportingServicesServi...	3776	ReportServer\$S...	00	61,044 K	Reporting Services Service
RNADirMultiplexor.exe ...	8748	SYSTEM	00	13,140 K	RNA Directory Client Multiple
RnaDirServer.exe *32	5768	SYSTEM	00	10,948 K	RNA Directory Server

☒ Show processes from all users End Process

End (Kill) the process from Task Manager (**but unsuccessful**)
NT Kernel & System?

From Windows Control Panel => Administrative Tools => Services
OR click on XAMPP Control Panel => Services button

Services					
File Action View Help					
Services (Local)					
Select an item to view its description.					
Name	Description	Status	Startup Type	Log On As	
ActiveX Installer (AxInstSV)	Provides Us...		Manual	Local Syste...	
Adaptive Brightness	Monitors a...	Started	Manual	Local Service	
Adobe Acrobat Update Service	Adobe Acro...	Started	Automatic	Local Syste...	
Adobe Genuine Monitor Service	Adobe Gen...	Started	Automatic	Local Syste...	
Adobe Genuine Software Integr...	Adobe Gen...	Started	Automatic	Local Syste...	
Agilent IO Libraries Service	Provides sys...	Started	Automatic	Local Syste...	
Agilent mDNS Responder Service	Enables har...	Started	Automatic	Local Syste...	
Agilent PXI Resource Manager	Manages re...	Started	Manual	Local Syste...	
Altera JTAG Server		Started	Automatic	Local Syste...	
Application Experience	Processes a...	Started	Manual	Local Syste...	
Application Identity	Determines ...		Manual	Local Service	
Application Information	Facilitates t...		Manual	Local Syste...	
Application Layer Gateway Service	Provides su...		Manual	Local Service	
Application Management	Processes in...		Manual	Local Syste...	
ASP.NET State Service	Provides su...		Disabled	Network S...	
Autodesk Application Manager S...	Autodesk A...	Started	Automatic	Local Syste...	
Autodesk Content Service	Autodesk C...	Started	Automatic	Local Syste...	
Background Intelligent Transfer ...	Transfers fil...	Started	Manual	Local Syste...	

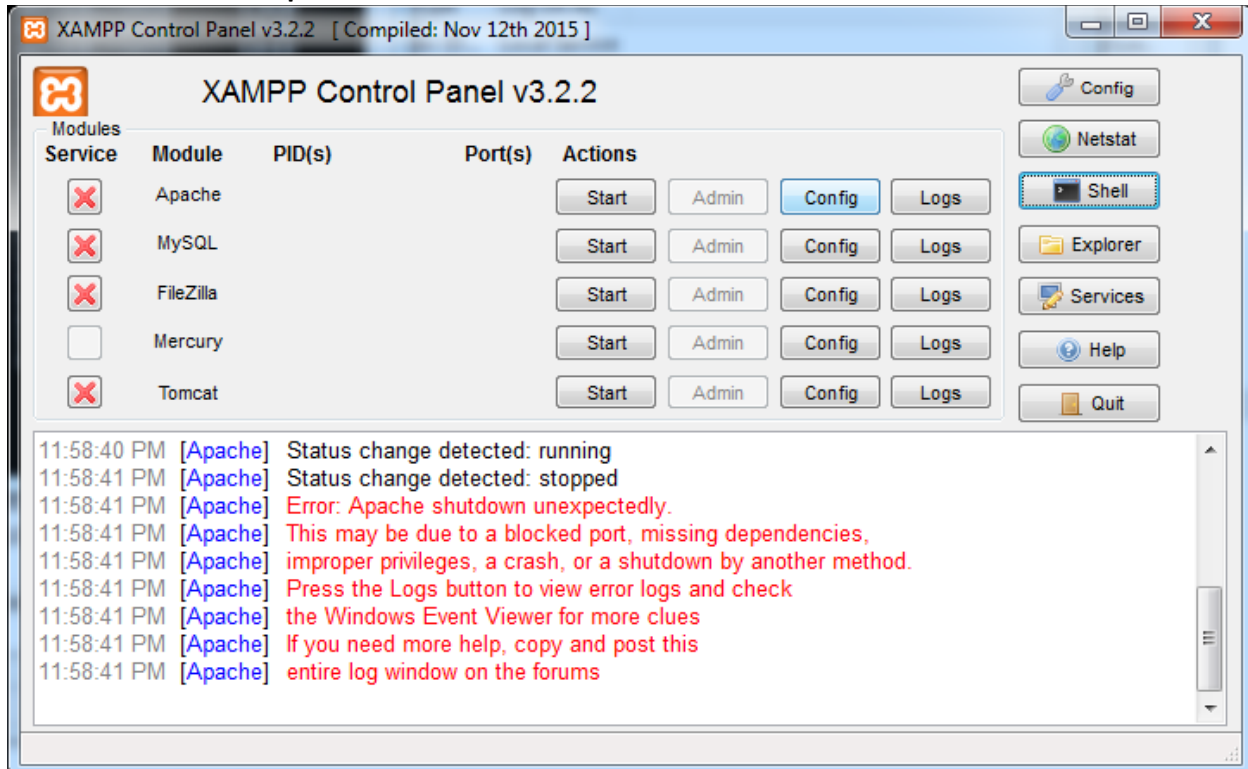
Extended / Standard

Problem (A) NI System Web Server is using port 80

- Click on "Stop the Service"
- Then restart the XAMPP
- **Problem remains**

Problem (B) SQL Server Reporting Services (SQLEXPRESS)

- Click on "Stop the Service"
- Then restart the XAMPP
- **GOOD TO GO**
- Click on Start Apache => Different Problem



Problem (C) If NOT ABLE to solve the problem yet:

Using NET STOP HTTP command to stop HTTP service

```
Administrator@LIN-PC c:\xampp
#cls
# NET Stop HTTP
The following services are dependent on the HTTP service.
Stopping the HTTP service will also stop these services.

    UPnP Device Host
    SSDP Discovery
    Print Spooler

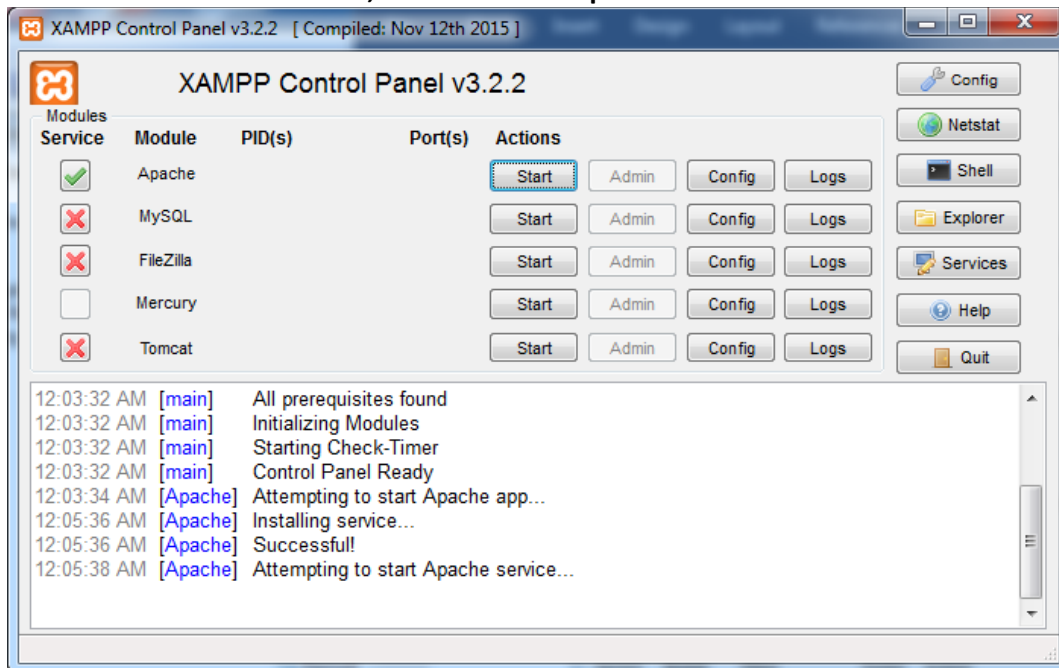
Do you want to continue this operation? (Y/N) [N]: y
The UPnP Device Host service is stopping.
The UPnP Device Host service was stopped successfully.
```

The SSDP Discovery service is stopping.
The SSDP Discovery service was stopped successfully.

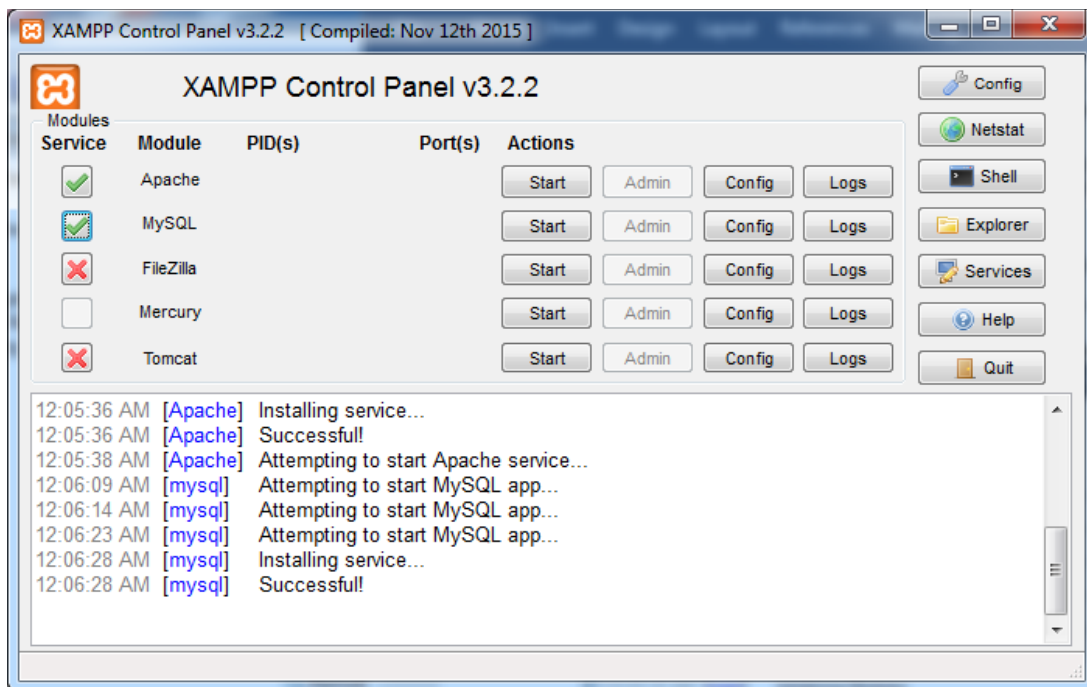
The Print Spooler service is stopping.
The Print Spooler service was stopped successfully.

The HTTP service is stopping.....
The HTTP service could not be stopped.

Restart XAMPP Control Panel, then Click Start Apache



Then Click Start MySQL



XAMPP Control Panel:

Click on “Config”, then click on “Service and Port Settings” to see

Configuration of Control Panel

Editor:

Browser (empty = system default)

Autostart of modules

☐ Apache ☐ FileZilla ☐ Tomcat
☐ MySQL ☐ Mercury

Selected modules will be started on next launch of the Control Panel.

☐ Start Control Panel Minimized
☒ Enable Tomcat output window
☒ Check default ports on startup
☐ Show debug information

Service Settings

Use this form to set service-specific and default port settings. You can set the name and default ports the XAMPP Control Panel will check. Do not include spaces or quotes in names. This does NOT change the ports that the services and programs use. You still need to change those in the services' configuration files.

Apache Settings

Service Name	Main Port	SSL Port
<input type="text" value="Apache2.4"/>	<input type="text" value="80"/>	<input type="text" value="443"/>

Service Settings

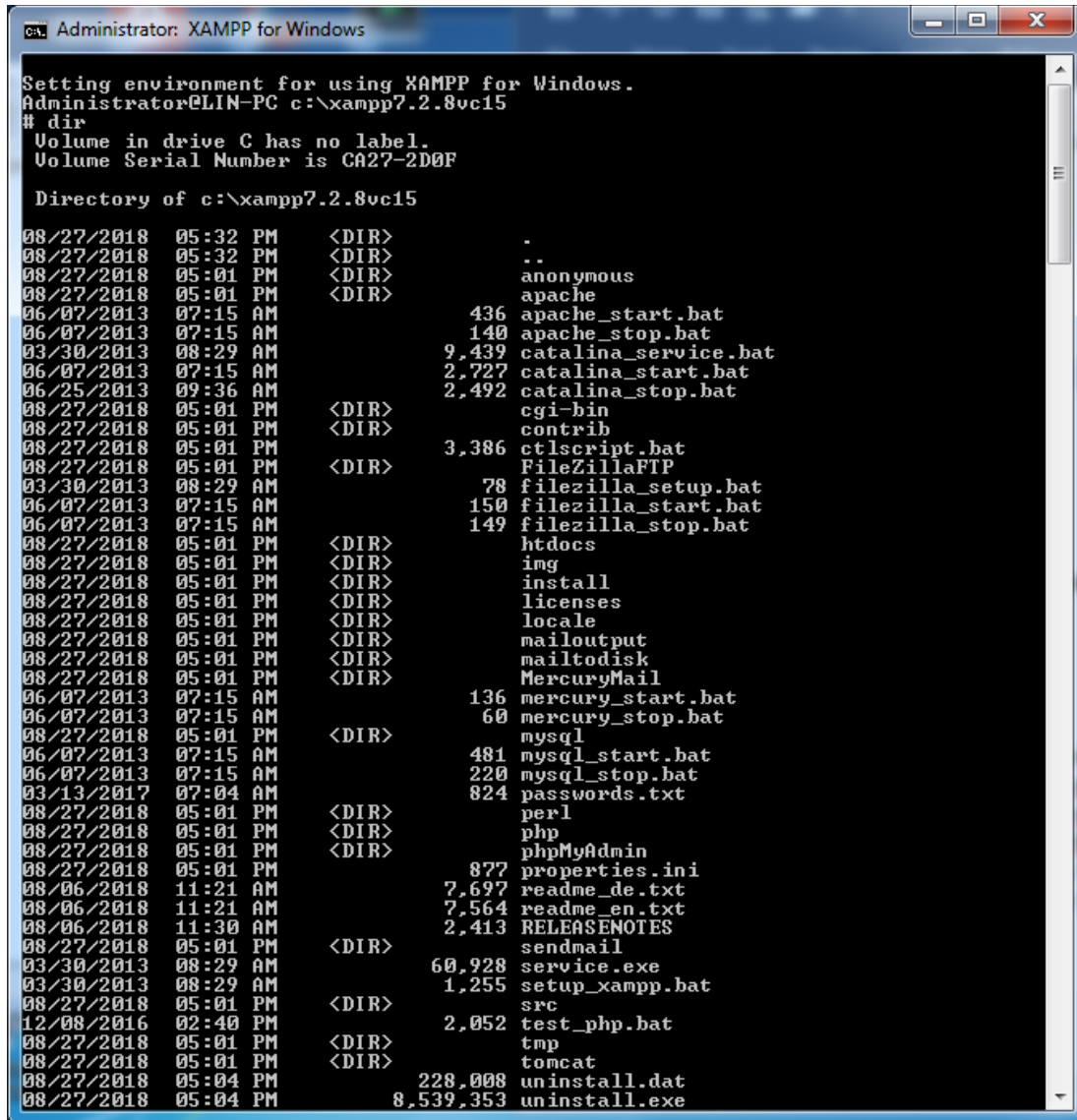
Use this form to set service-specific and default port settings. You can set the name and default ports the XAMPP Control Panel will check. Do not include spaces or quotes in names. This does NOT change the ports that the services and programs use. You still need to change those in the services' configuration files.

MySQL Settings

Service Name	Main Port
<input type="text" value="mysql"/>	<input type="text" value="3306"/>

Apache Folders/Subdirectories (XAMPP example)

Click on Shell



```
Administrator: XAMPP for Windows

Setting environment for using XAMPP for Windows.
Administrator@LIN-PC c:\xampp7.2.8vc15
# dir
Volume in drive C has no label.
Volume Serial Number is CA27-2D0F

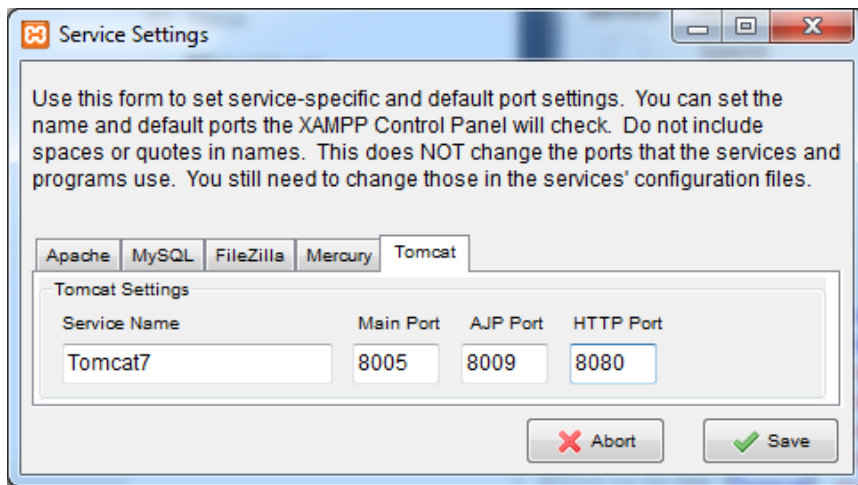
Directory of c:\xampp7.2.8vc15

08/27/2018 05:32 PM <DIR> .
08/27/2018 05:32 PM <DIR> ..
08/27/2018 05:01 PM <DIR> anonymous
08/27/2018 05:01 PM <DIR> apache
06/07/2013 07:15 AM 436 apache_start.bat
06/07/2013 07:15 AM 140 apache_stop.bat
03/30/2013 08:29 AM 9,439 catalina_service.bat
06/07/2013 07:15 AM 2,727 catalina_start.bat
06/25/2013 09:36 AM 2,492 catalina_stop.bat
08/27/2018 05:01 PM <DIR> cgi-bin
08/27/2018 05:01 PM <DIR> contrib
08/27/2018 05:01 PM 3,386 ctlscript.bat
08/27/2018 05:01 PM <DIR> FileZillaFTP
03/30/2013 08:29 AM 78 filezilla_setup.bat
06/07/2013 07:15 AM 150 filezilla_start.bat
06/07/2013 07:15 AM 149 filezilla_stop.bat
08/27/2018 05:01 PM <DIR> htdocs
08/27/2018 05:01 PM <DIR> img
08/27/2018 05:01 PM <DIR> install
08/27/2018 05:01 PM <DIR> licenses
08/27/2018 05:01 PM <DIR> locale
08/27/2018 05:01 PM <DIR> mailoutput
08/27/2018 05:01 PM <DIR> mailtodisk
08/27/2018 05:01 PM <DIR> MercuryMail
06/07/2013 07:15 AM 136 mercury_start.bat
06/07/2013 07:15 AM 60 mercury_stop.bat
08/27/2018 05:01 PM <DIR> mysql
06/07/2013 07:15 AM 481 mysql_start.bat
06/07/2013 07:15 AM 220 mysql_stop.bat
03/13/2017 07:04 AM 824 passwords.txt
08/27/2018 05:01 PM <DIR> perl
08/27/2018 05:01 PM <DIR> php
08/27/2018 05:01 PM <DIR> phpMyAdmin
08/27/2018 05:01 PM 877 properties.ini
08/06/2018 11:21 AM 7,697 readme_de.txt
08/06/2018 11:21 AM 7,564 readme_en.txt
08/06/2018 11:30 AM 2,413 RELEASENOTES
08/27/2018 05:01 PM <DIR> sendmail
03/30/2013 08:29 AM 60,928 service.exe
03/30/2013 08:29 AM 1,255 setup_xampp.bat
08/27/2018 05:01 PM <DIR> src
12/08/2016 02:40 PM 2,052 test_php.bat
08/27/2018 05:01 PM <DIR> tmp
08/27/2018 05:01 PM <DIR> tomcat
08/27/2018 05:04 PM 228,008 uninstall.dat
08/27/2018 05:04 PM 8,539,353 uninstall.exe
```

Inside Apache Folder/Directory

- apache
 - /bin/
 - /conf/httpd.conf the configuration file
 - Listening port 80 (default)
 - LoadModule
 - ServerName localhost:80
 - DocumentRoot "C:/xampp/htdocs"
 - <Directory "C:/xampp/htdocs"> ... </Directory>
 - <Directory "C:/xampp/cgi-bin"> ... </Directory>

- /conf/exta
- /conf/original
- /conf/ssl.crt
- /conf/ssl.csr
- /conf/ssl.key
- /error
- /icons
- /include
- /lib
- /logs
- /manual
- /modules
- /scripts
- htdocs
- cgi-bin
- php
- perl
- phpMyAdmin



Change HTTP Port to 8090

Discussion Forum:

- <http://stackoverflow.com/questions/34495137/tomcat-shutdown-unexpectedly>
- net stop http -- stop the services on port 80
- netstat -abno -- to see who else is using port