

# Introduzione a XAMPP

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# Introduzione

## ■ applicazione web richiede

### ■ diversi componenti

- HTTP server per rendere disponibili le pagine web
  - es. Apache
- database per gestire i dati
  - es. MySQL
- application engine per l'esecuzione di programmi
  - es. interprete PHP, Tomcat per JSP

### ■ configurazioni specifiche per ogni componente

- trade-off: semplicità Vs sicurezza Vs efficienza
  - ambito di utilizzo

# Introduzione

- **XAMPP: insieme integrato di pacchetti software (distribuzione)**
  - include: Apache, PHP, MySQL, phpMyAdmin, ...
  - orientato allo sviluppo/test di applicazioni web
  - facile da installare, configurazione predefinita
  - interfaccia per operazioni semplici
    - es. avvio/stop servizi, configurazione porte web server
  - operazioni avanzate: necessario agire sulle configurazioni specifiche dei servizi
    - es. host virtuali
  - in generale non adatto per sistemi di produzione
    - hardening

# XAMPP per Windows 7

## ■ pagina di download

- <http://www.apachefriends.org/en/xampp-windows.html>
- versione 1.8.1 (per Windows 7)

## ■ requisiti

- Microsoft Visual C++ 2008 Redistributable package
- pagina download: <http://www.microsoft.com/en-us/download/details.aspx?id=5582>

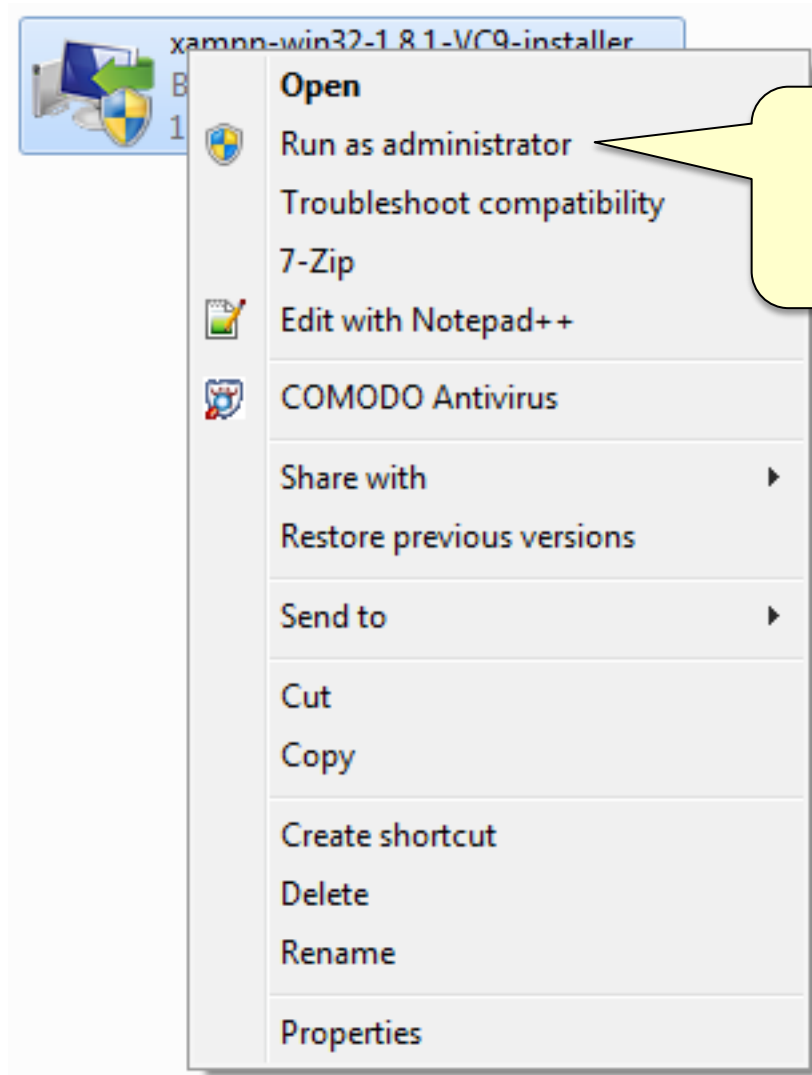
## ■ disponibile anche per

- GNU/Linux
- Apple Mac OS X
- Solaris

# XAMPP Lite (Portable) per Windows 7

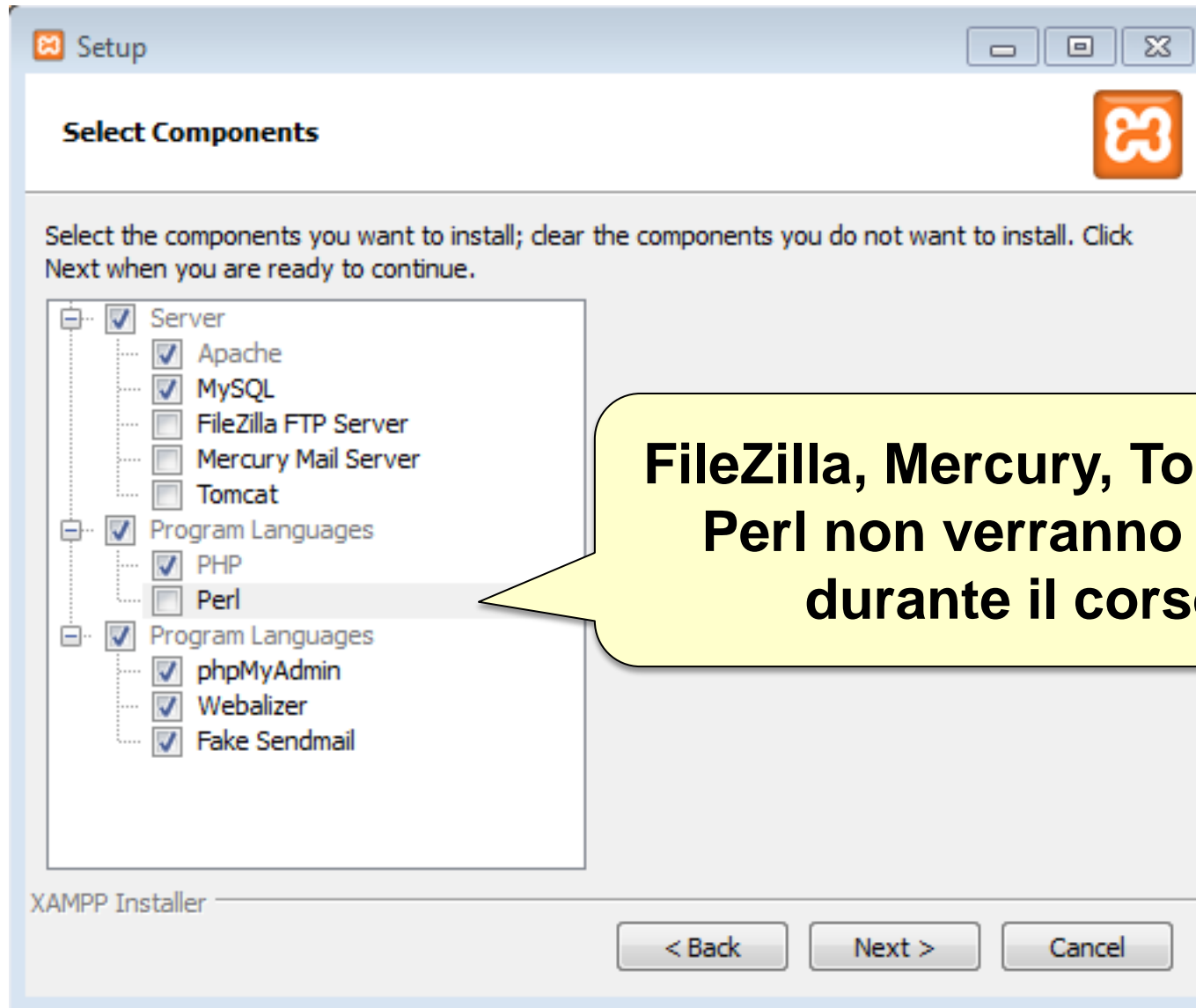
- **usa meno spazio su disco**
- **contiene Apache, PHP, MySQL, FakeMail**
- **installabile su memoria esterna (es. memoria USB )**
- **una volta installata, per essere avviata:**
  - **aprire la cartella di installazione**
    - **default: "C:\xampp-portable"**
  - **doppio click su "xampp\_start.exe"**
  - **per accedere al pannello di controllo, doppio click su "xampp\_control.exe"**
- **ATTENZIONE: il pannello di controllo è in versione beta**

# Installazione di XAMPP in Windows 7



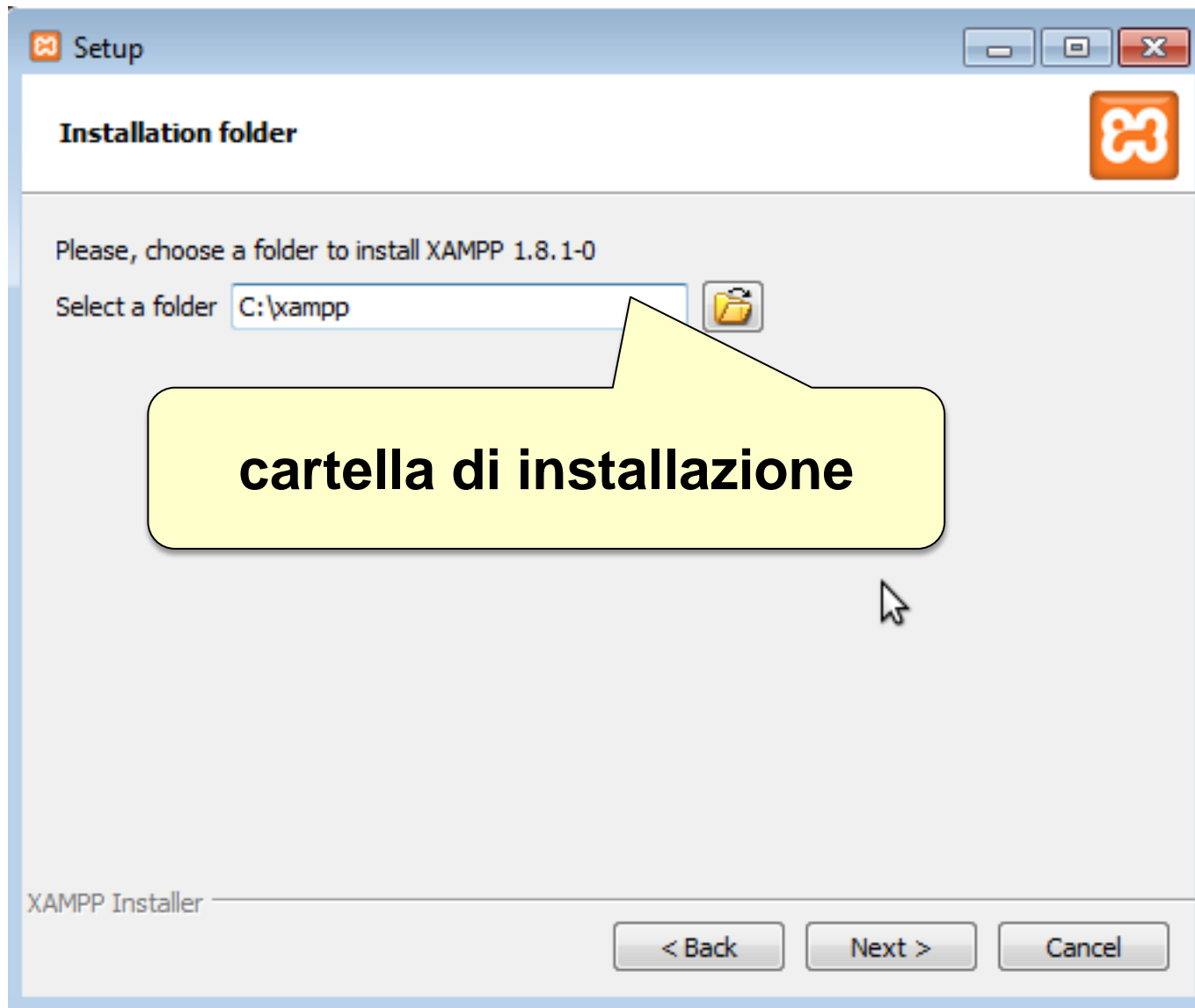
**avviare l'installazione con  
l'utente "Amministratore"**

# Installazione di XAMPP in Windows 7



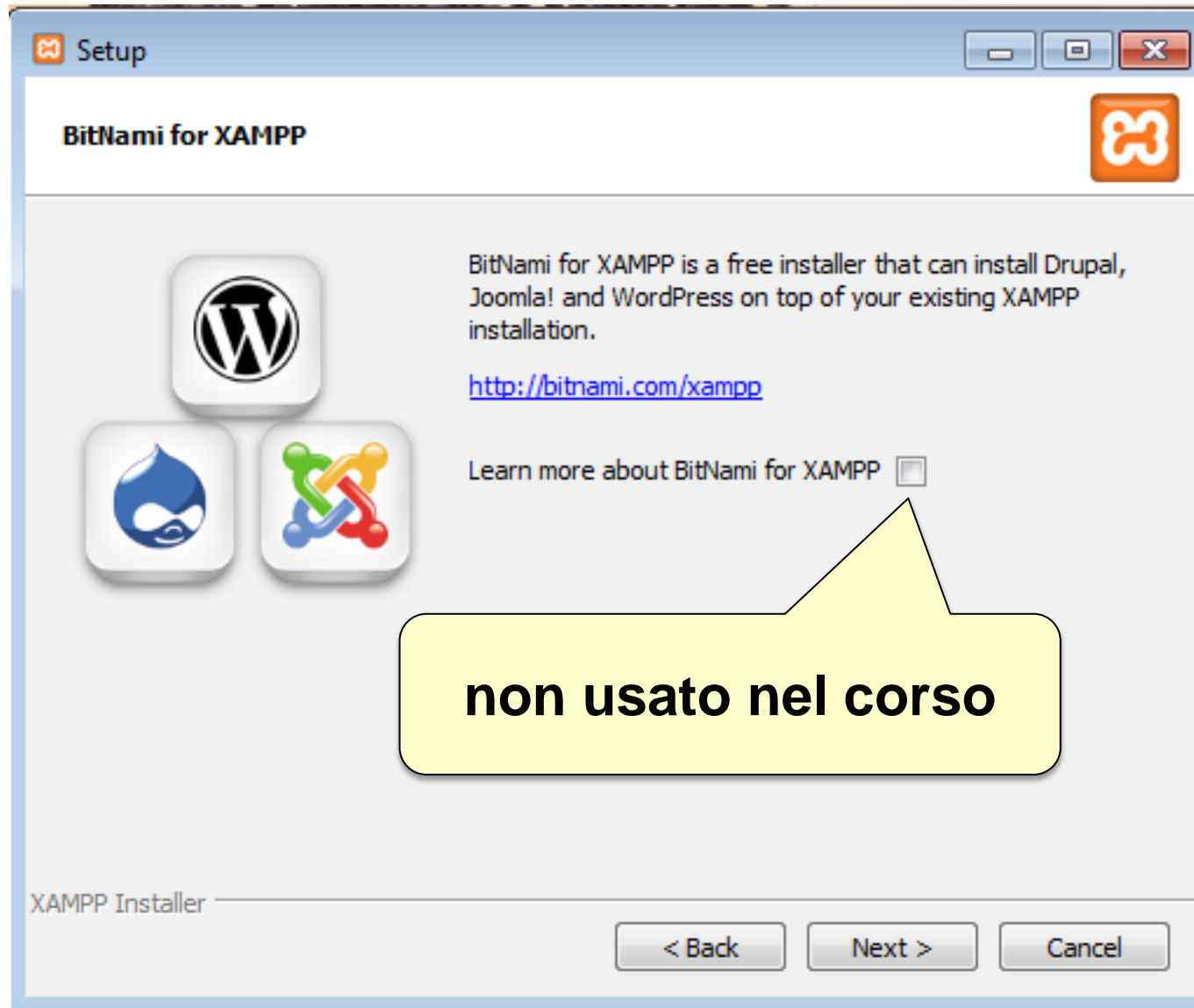
**FileZilla, Mercury, Tomcat e Perl non verranno usati durante il corso**

# Installazione di XAMPP in Windows 7





# Installazione di XAMPP in Windows 7

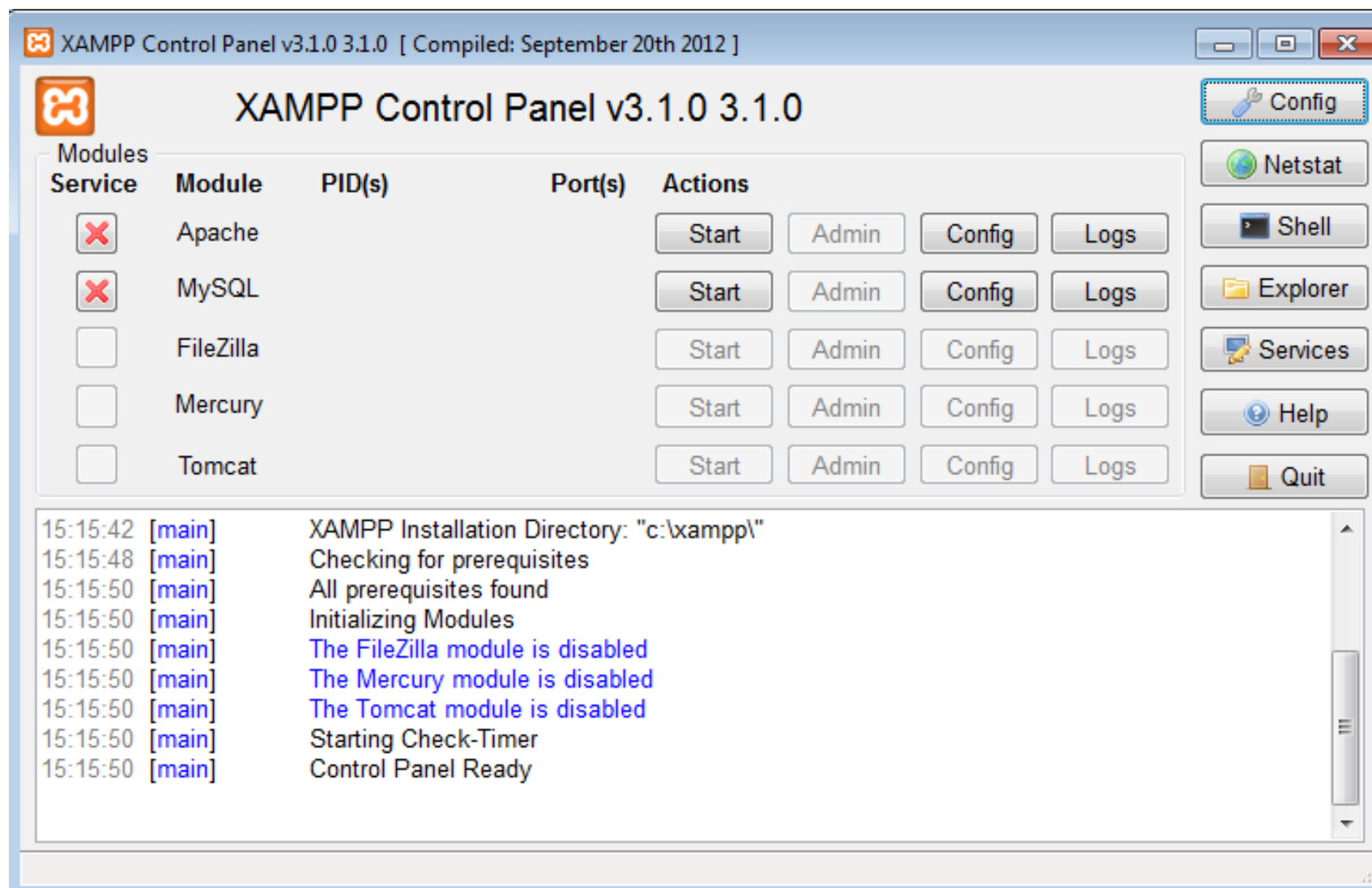


# Avvio di XAMPP

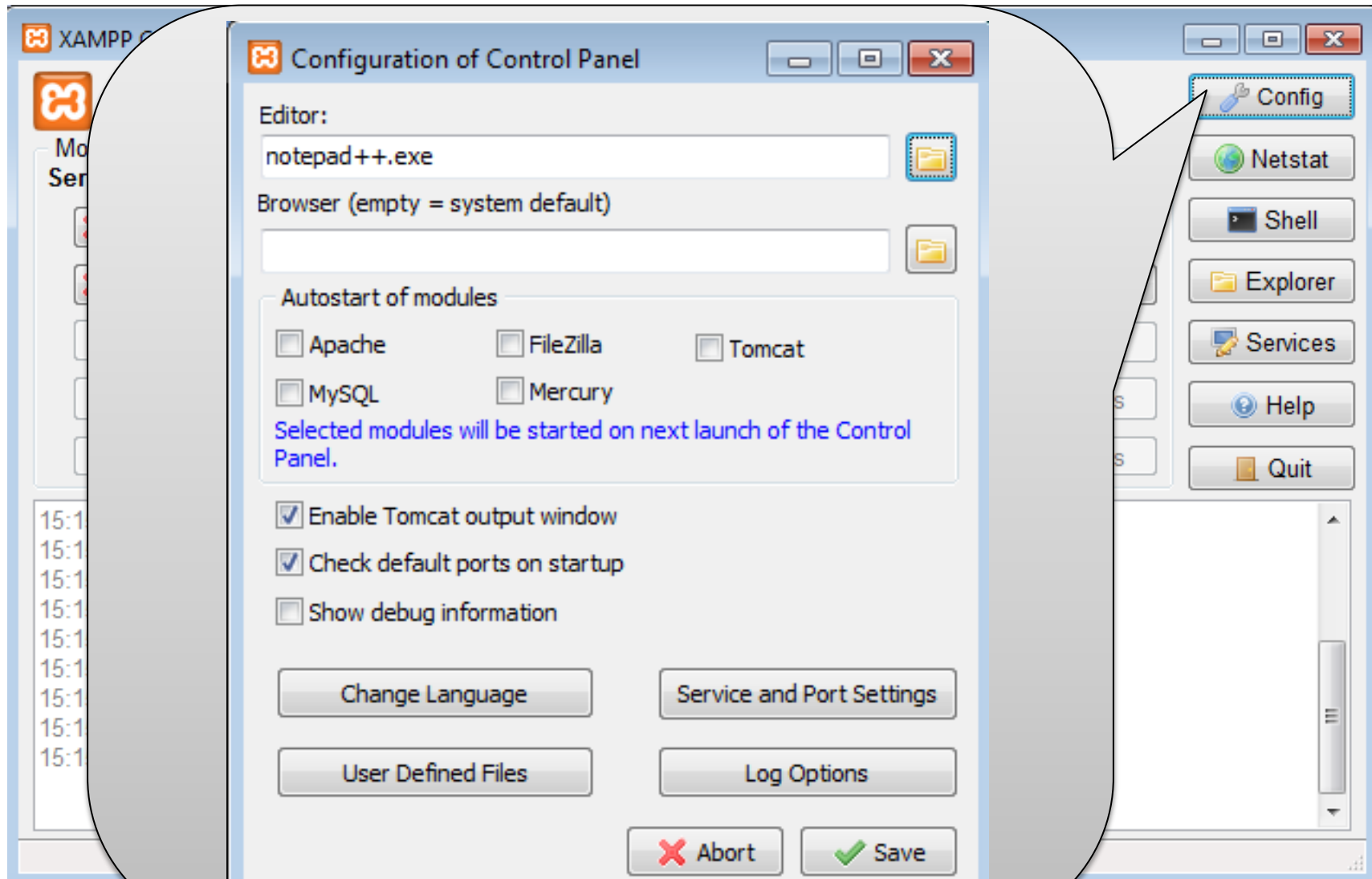


**avviare XAMPP con  
l'utente "Amministratore"**

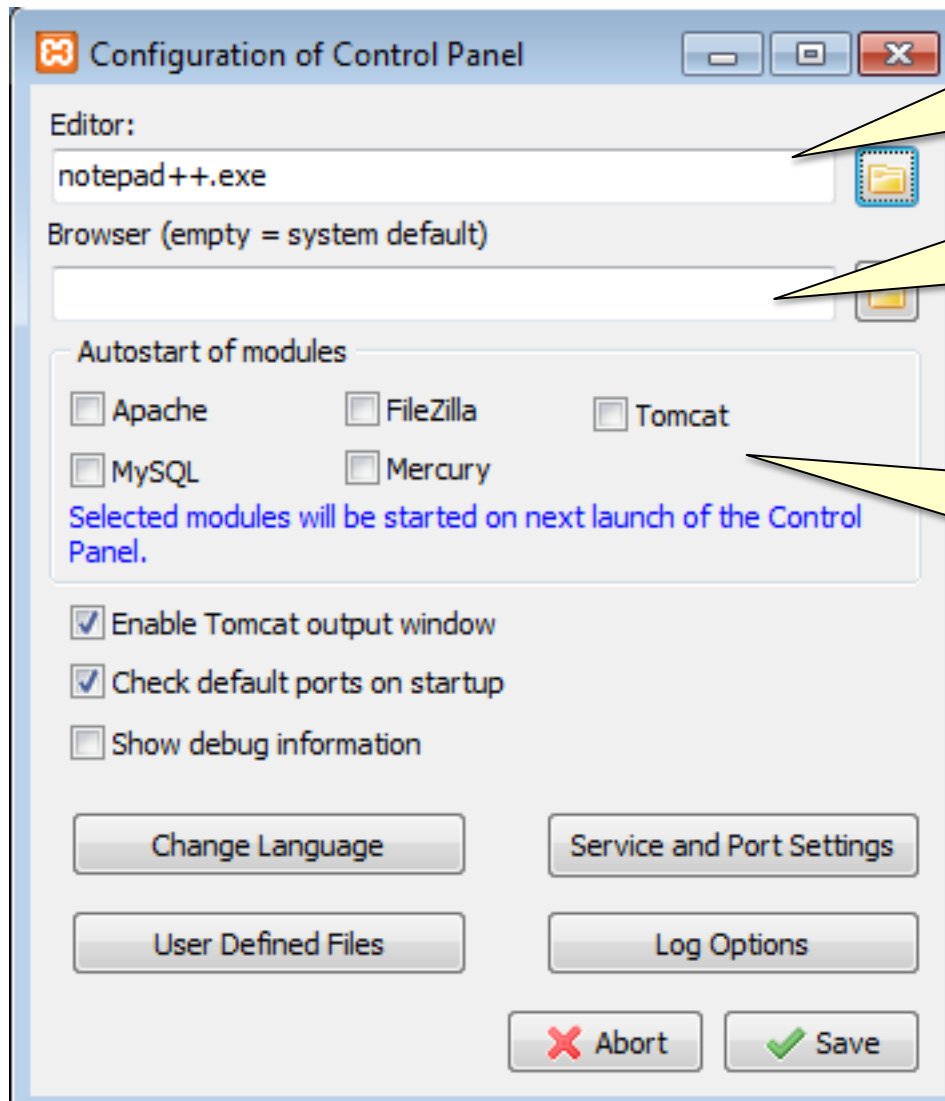
# XAMPP – Pannello di controllo



# XAMPP – Impostazioni generali



# XAMPP – Impostazioni generali

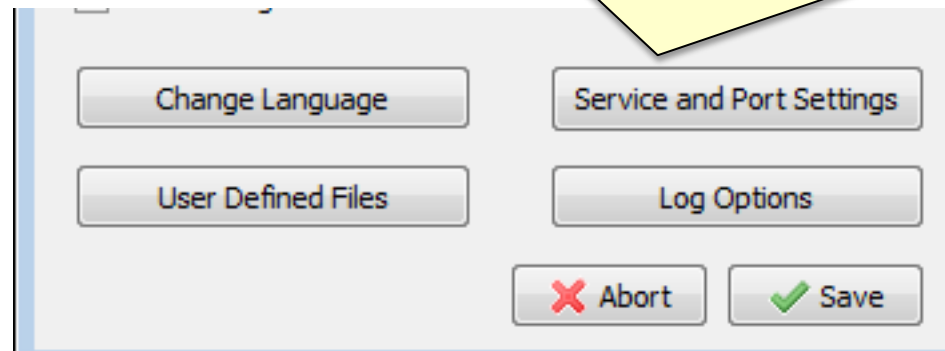
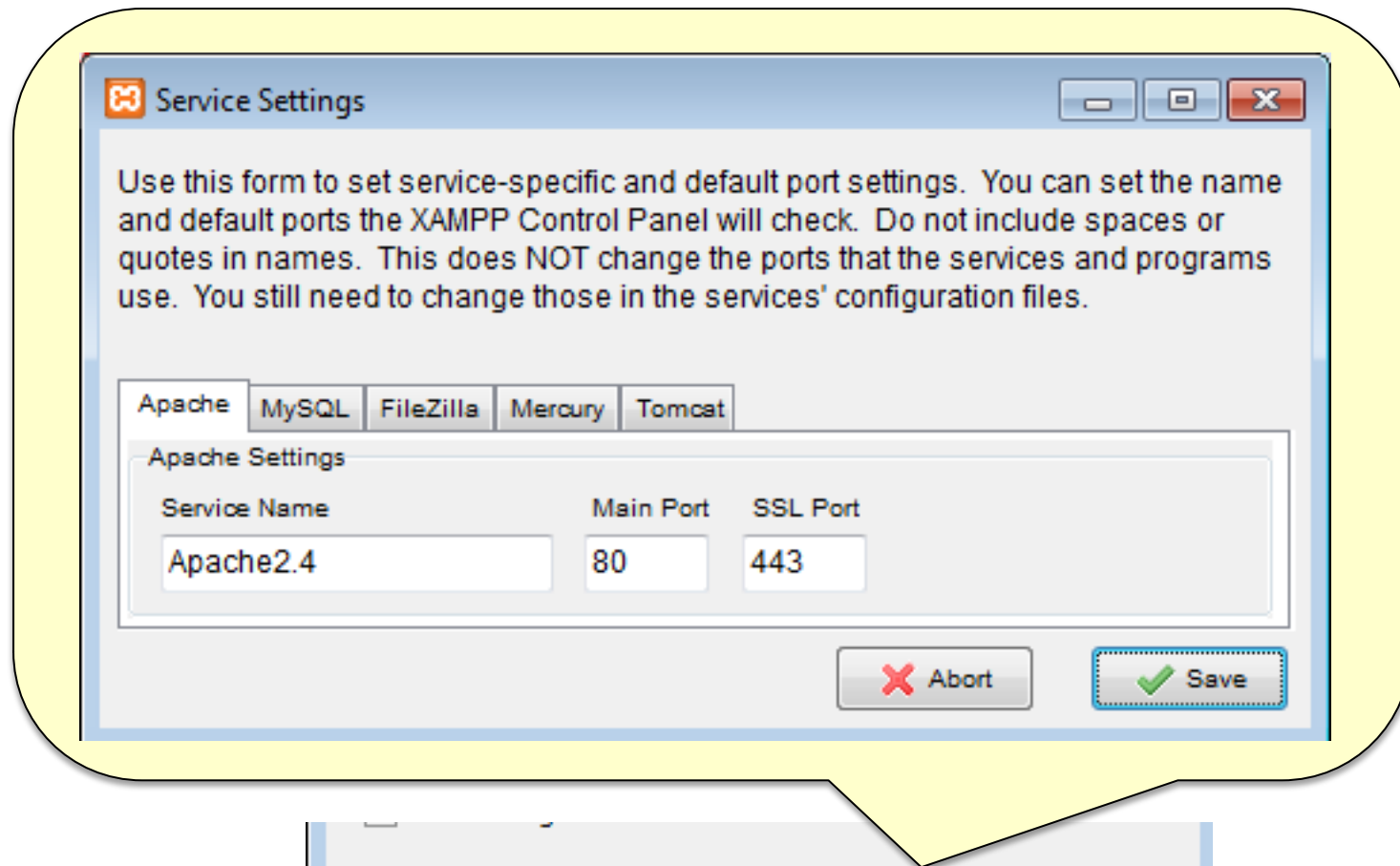


**editor di testo per  
le configurazioni**

**browser predefinito**

**avvio automatico dei servizi**

# XAMPP – Impostazioni servizio



# Apache

- **HTTP server**

- ospita pagine HTML statiche

- **application server**

- ospita pagine/applicazioni dinamiche (es. PHP)
    - attraverso caricamento di un modulo (es. PHP)
    - file con estensione “.php” (o altro: configurabile!)

- **pagine/applicazioni posizionate nella “Document Root”**

- **configurazione di default**

- HTTP porta 80/TCP
  - HTTPS porta 443/TCP

# Avvio di Apache

XAMPP Control Panel v3.1.0 3.1.0 [ Compiled: September 20th 2012 ]

**XAMPP Control Panel v3.1.0 3.1.0**

Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache			Start Admin Config Logs
<input checked="" type="checkbox"/>	MySQL			Start Admin Config Logs
<input type="checkbox"/>	FileZilla			Start Admin Config Logs
<input type="checkbox"/>	Mercury			Start Admin Config Logs
<input type="checkbox"/>	Tomcat			Start Admin Config Logs

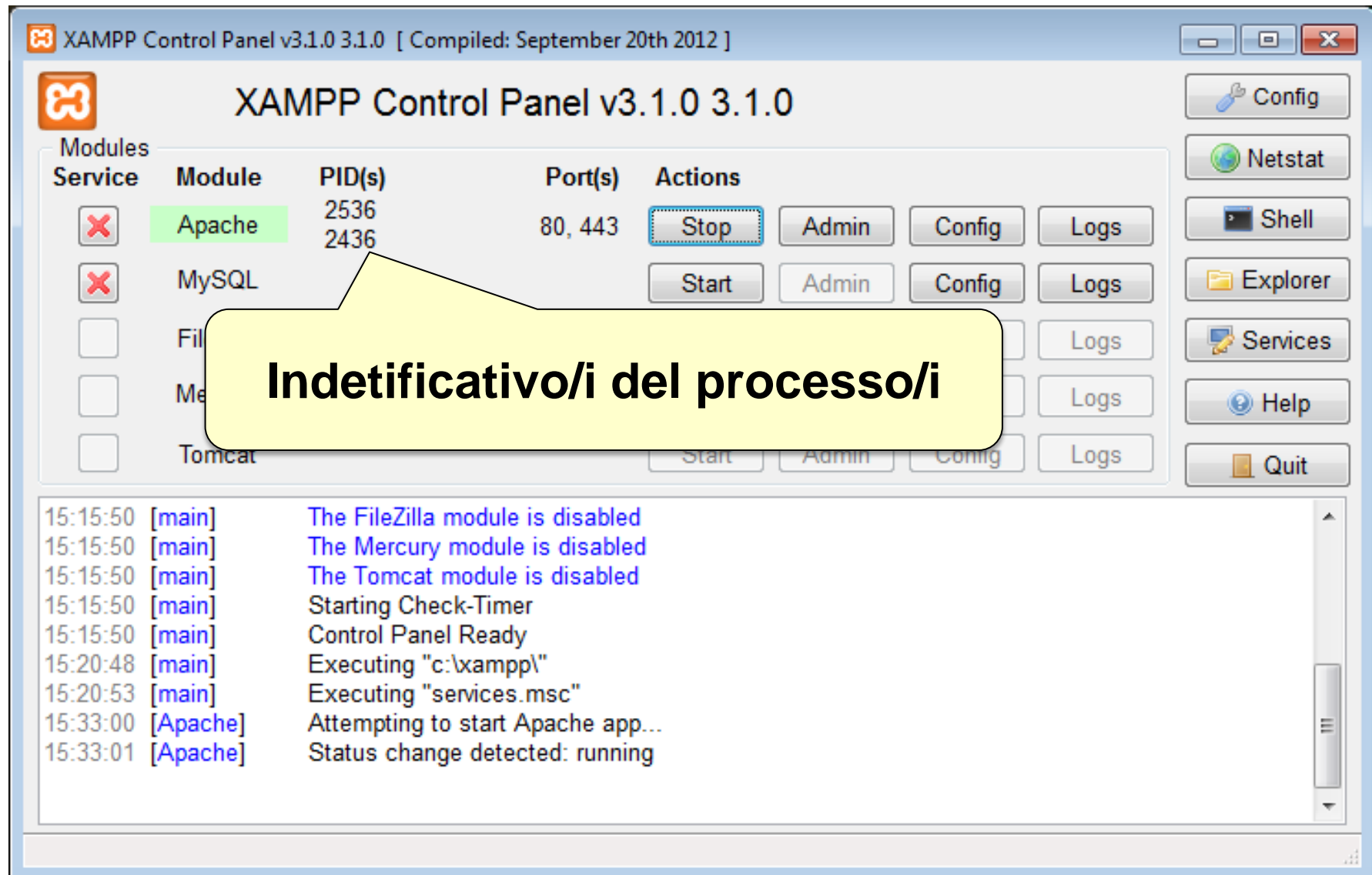
**avvio di Apache**

15:15:42 [main] XAMPP Installation Directory: "c:\xampp\  
15:15:48 [main] Checking for prerequisites  
15:15:50 [main] All prerequisites found  
15:15:50 [main] Initializing Modules  
15:15:50 [main] The FileZilla module is disabled  
15:15:50 [main] The Mercury module is disabled  
15:15:50 [main] The Tomcat module is disabled  
15:15:50 [main] Starting Check-Timer  
15:15:50 [main] Control Panel Ready

Config  
Netstat  
Shell  
Explorer  
Services  
Help  
Quit



# Avvio di Apache



XAMPP Control Panel v3.1.0 3.1.0 [ Compiled: September 20th 2012 ]

**Modules**

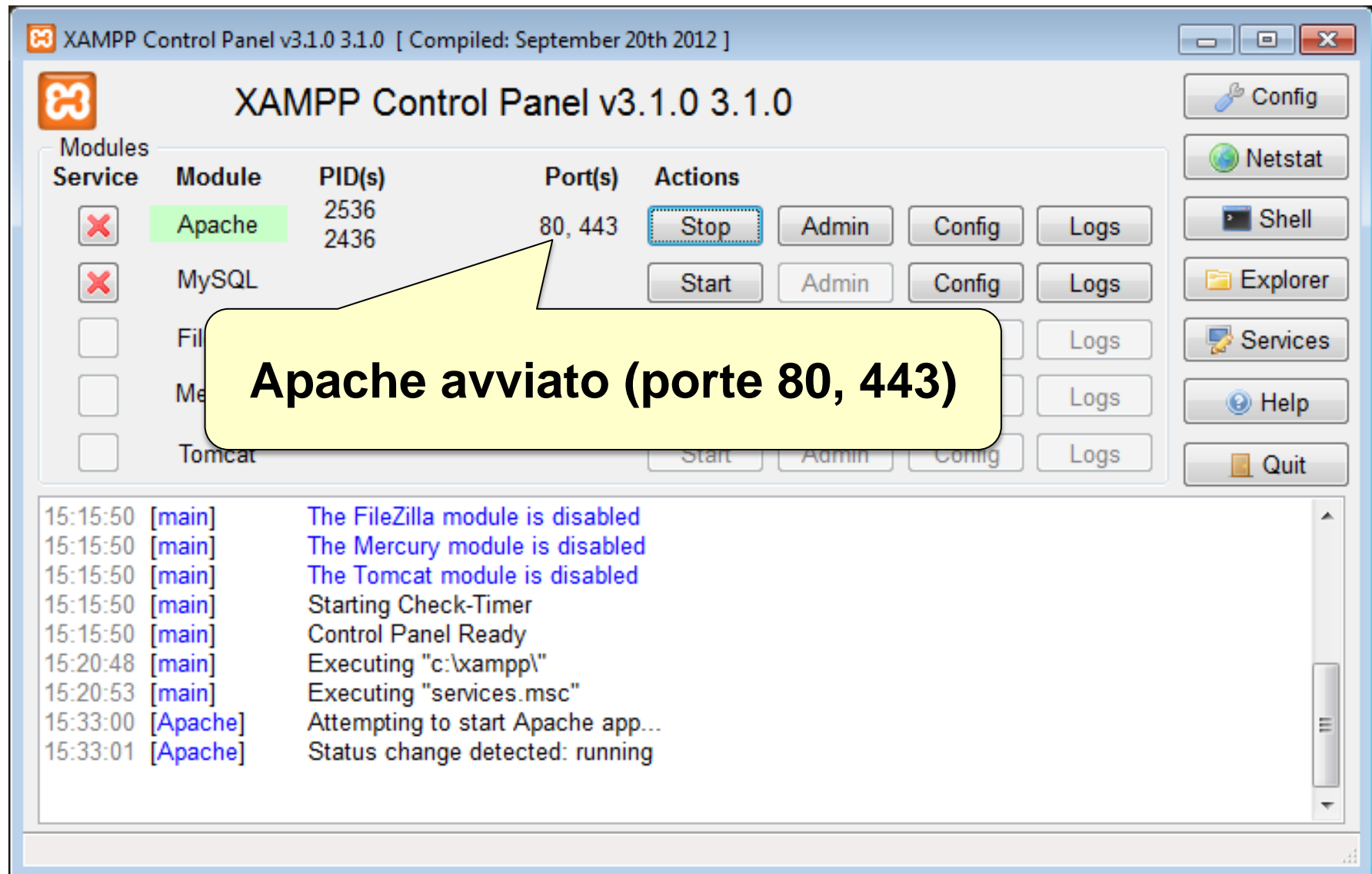
Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache	2536 2436	80, 443	<input type="button" value="Stop"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input checked="" type="checkbox"/>	MySQL			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	FileZilla			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	Mercury			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	Tomcat			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>

**Indetificativo/i del processo/i**

**Log:**

- 15:15:50 [main] The FileZilla module is disabled
- 15:15:50 [main] The Mercury module is disabled
- 15:15:50 [main] The Tomcat module is disabled
- 15:15:50 [main] Starting Check-Timer
- 15:15:50 [main] Control Panel Ready
- 15:20:48 [main] Executing "c:\xampp\"
- 15:20:53 [main] Executing "services.msc"
- 15:33:00 [Apache] Attempting to start Apache app...
- 15:33:01 [Apache] Status change detected: running

# Avvio di Apache



XAMPP Control Panel v3.1.0 3.1.0 [ Compiled: September 20th 2012 ]

**XAMPP Control Panel v3.1.0 3.1.0**

Modules

Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache	2536 2436	80, 443	<input type="button" value="Stop"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input checked="" type="checkbox"/>	MySQL			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	FileZilla			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	Mercury			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	Tomcat			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>

Apache avviato (porte 80, 443)

Config  
Netstat  
Shell  
Explorer  
Services  
Help  
Quit

15:15:50 [main] The FileZilla module is disabled  
15:15:50 [main] The Mercury module is disabled  
15:15:50 [main] The Tomcat module is disabled  
15:15:50 [main] Starting Check-Timer  
15:15:50 [main] Control Panel Ready  
15:20:48 [main] Executing "c:\xampp\  
15:20:53 [main] Executing "services.msc"  
15:33:00 [Apache] Attempting to start Apache app...  
15:33:01 [Apache] Status change detected: running

# Stop di Apache

XAMPP Control Panel v3.1.0 3.1.0 [ Compiled: September 20th 2012 ]

**XAMPP Control Panel v3.1.0 3.1.0**

Modules

Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache	2536 2436	80, 443	<b>Stop</b> Admin Config Logs
<input checked="" type="checkbox"/>	MySQL			Start Admin Config Logs
<input type="checkbox"/>	FileZilla			Start Admin Config Logs
<input type="checkbox"/>	Mercury			Start Admin Config Logs
<input type="checkbox"/>	Tomcat			Start Admin Config Logs

**stop di Apache**

15:15:50 [main] The FileZilla module is disabled  
15:15:50 [main] The Mercury module is disabled  
15:15:50 [main] The Tomcat module is disabled  
15:15:50 [main] Starting Check-Timer  
15:15:50 [main] Control Panel Ready  
15:20:48 [main] Executing "c:\xampp\  
15:20:53 [main] Executing "services.msc"  
15:33:00 [Apache] Attempting to start Apache app...  
15:33:01 [Apache] Status change detected: running

Config Netstat Shell Explorer Services Help Quit

# Apache – file di configurazione e cartelle

- **cartella “DocumentRoot”**

- dove posizionare le pagine/applicazioni web
- “C:\xampp\htdocs” (in MS Windows)

- **cartella “ServerRoot”**

- dove Apache viene installato
- “C:\xampp\apache” (in MS Windows)

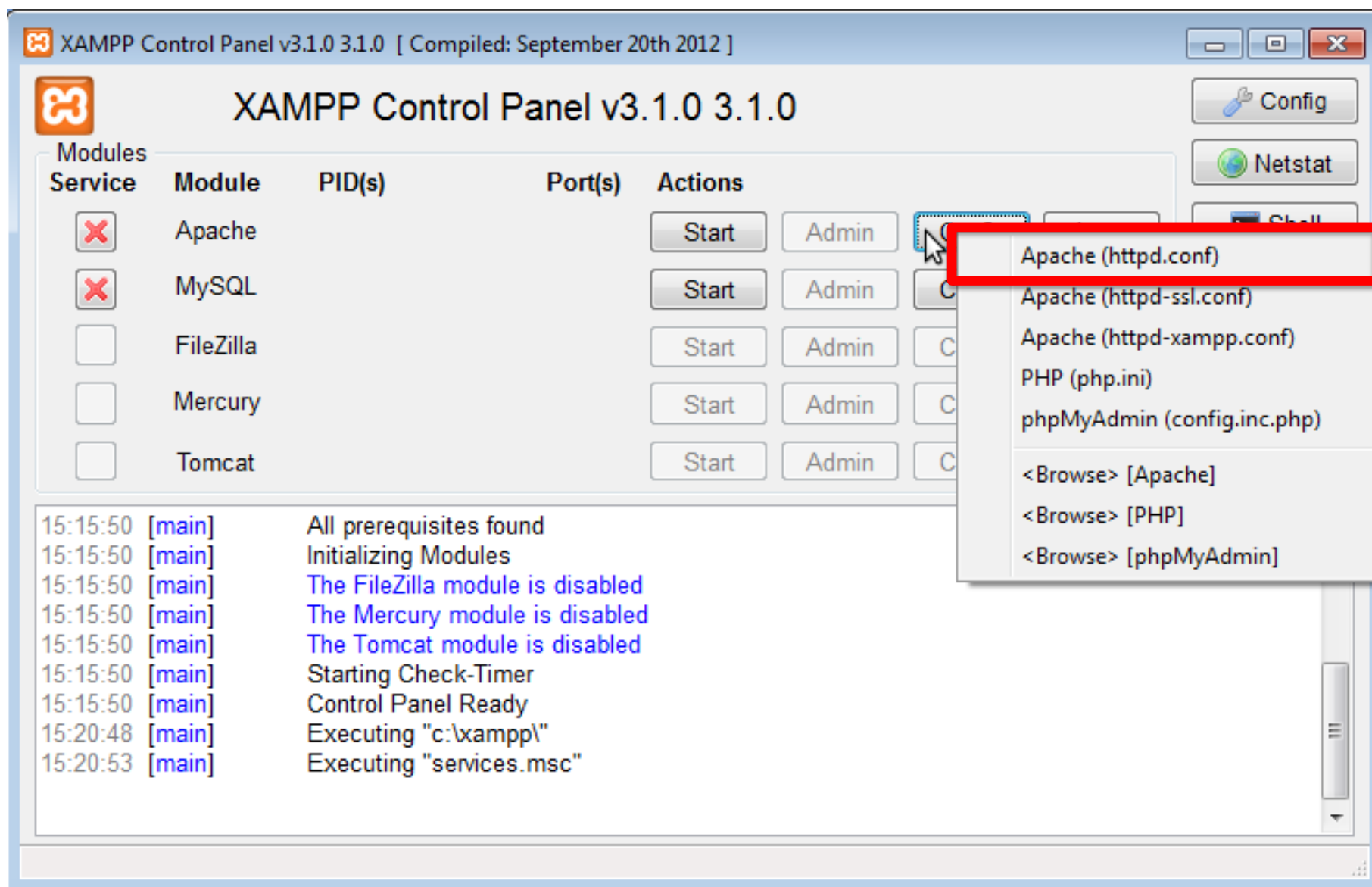
- **file configurazione principale**

- porte in ascolto, moduli da caricare, ...
- “C:\xampp\apache\conf\httpd.conf” (in MS Windows)

- **file configurazione XAMPP**

- usato per integrare i componenti (es. PHP, database, ...)
- “C:\xampp\apache\conf\extra\httpd-xampp.conf” (in MS Windows)

# Apache - accesso ai file di configurazione



# Apache – estratto httpd.conf

```
...  
ServerName localhost:80  
...  
ServerRoot "C:/xampp/apache"  
...  
DocumentRoot "C:/xampp/htdocs"  
...  
Listen 80  
...  
LoadModule auth_basic_module modules/mod_auth_basic.so  
LoadModule mime_module modules/mod_mime.so  
LoadModule cgi_module modules/mod_cgi.so
```

# Apache – estratto httpd.conf (cont.)

```
...  
<Directory "C:/xampp/cgi-bin">  
    AllowOverride None  
    Options None  
    Require all granted  
</Directory>  
...  
<IfModule mime_module>  
    AddType text/html .shtml  
    AddOutputFilter INCLUDES .shtml  
</IfModule>  
...  
# XAMPP specific settings  
Include "conf/extra/httpd-xampp.conf"
```

# PHP

- **modulo installato sul server**

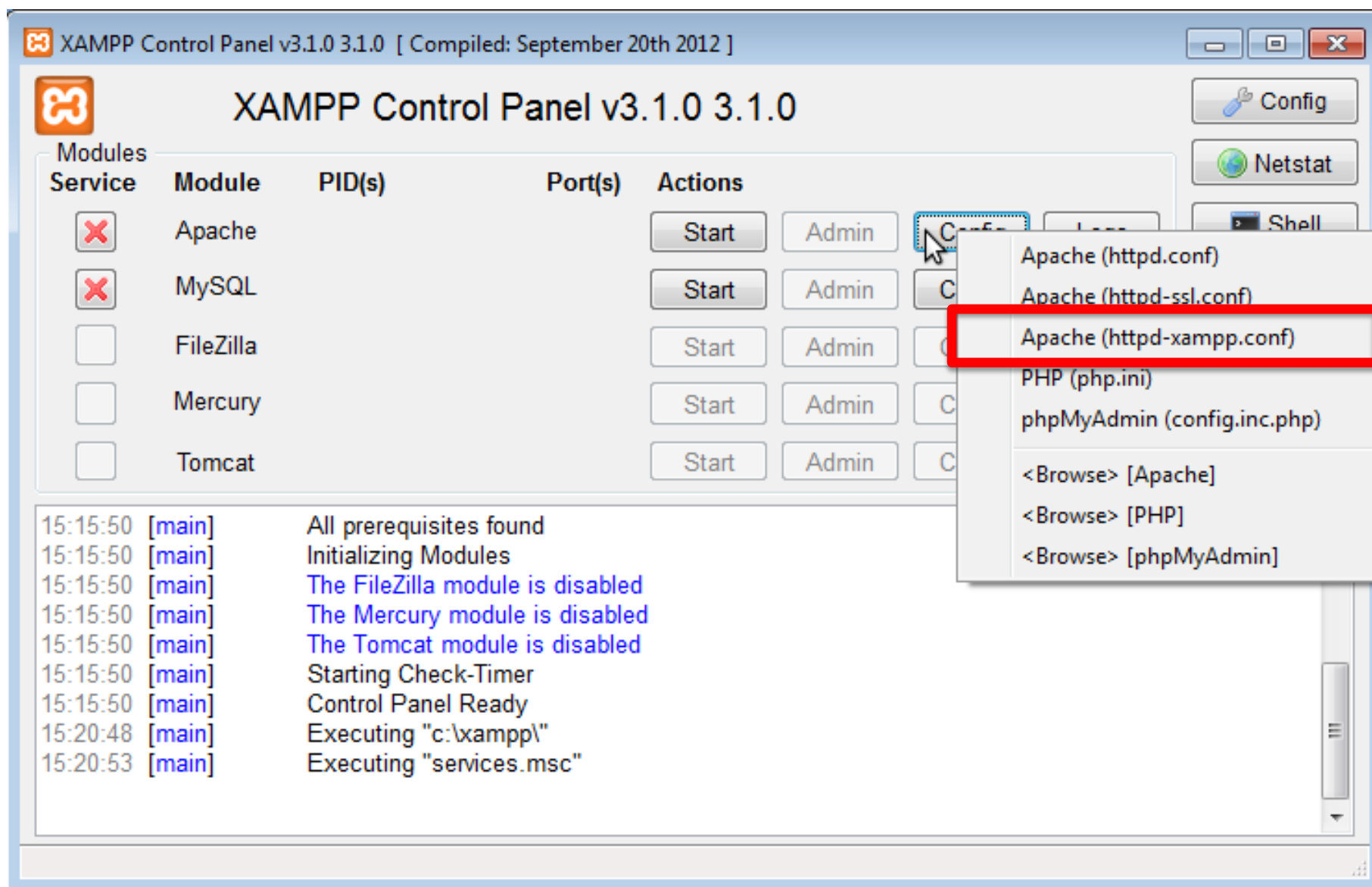
- caricato/utilizzato da application server
  - configurazione interna all'application server
- configurazione del modulo PHP
  - impostazioni specifiche (es. upload di file, sessioni, ...)

- **integrato e preconfigurato in XAMPP**

- installato in C:\xampp\php\ (in MS Windows)
- file configurazione Apache
  - C:\xampp\apache\conf\extra\httpd-xampp.conf (in MS Windows)
- file configurazione modulo PHP
  - C:\xampp\php\php.ini (in MS Windows)



# PHP – file di configurazione per Apache



# PHP – estratto httpd-xampp.conf

```
LoadFile "C:/xampp/php/php5ts.dll"
```

```
LoadModule php5_module "C:/xampp/php/php5apache2_4.dll"
```

```
<FilesMatch "\.php$"
```

```
    SetHandler application/x-httpd-php
```

```
</FilesMatch>
```

```
<FilesMatch "\.phps$">
```

```
    SetHandler application/x-httpd-php-source
```

```
</FilesMatch>
```

**software che implementa PHP**

# PHP – Estratto httpd-xampp.conf

**estensione “.php” (notare regexp!):  
file eseguito dall'interprete PHP**

```
LoadFile "C:/xampp/php/php5apache2_4.dll"
LoadModule php5_module "C:/xampp/php/php5apache2_4.dll"
```

```
<FilesMatch "\.php$" >  
    SetHandler application/x-httpd-php
```

&lt;/FilesMatch&gt;

```
<FilesMatch "\.phps$">
    SetHandler application/x-httpd-php-source
</FilesMatch>
```

# PHP – Estratto httpd-xampp.conf

```
LoadFile "C:/xampp/php/php5ts.dll"  
LoadModule php5_module "C:/xampp/php/php5apache2_4.dll"
```

```
<FilesMatch "\.php"  
    SetHandler application/x-httpd-php
```

```
</FilesMatch>
```

```
<FilesMatch "\.phps$">
```

```
    SetHandler application/x-httpd-php-source
```

```
</FilesMatch>
```

**estensione ".phps" (PHP Source):  
file NON eseguito dall'interprete PHP !**

# PHP – file di configurazione per PHP

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**Modules**

Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache			Start Admin <b>Config</b>
<input checked="" type="checkbox"/>	MySQL			Start Admin C
<input type="checkbox"/>	FileZilla			Start Admin C
<input type="checkbox"/>	Mercury			Start Admin C
<input type="checkbox"/>	Tomcat			Start Admin C

**Config**

- Apache (httpd.conf)
- Apache (httpd-ssl.conf)
- Apache (httpd-xampp.conf)
- PHP (php.ini)**
- phpMyAdmin (config.inc.php)
- <Browse> [Apache]
- <Browse> [PHP]
- <Browse> [phpMyAdmin]

**file di configurazione per impostazioni specifiche PHP**

15:15:50 [main] Starting Check Timer  
15:15:50 [main] Control Panel Ready  
15:20:48 [main] Executing "c:\xampp\  
15:20:53 [main] Executing "services.msc"

# Apache - verifica installazione

- **caricare il file "ciao.html" nella DocumentRoot di Apache**
  - C:\xampp\htdocs (in MS Windows)
- **aprire il browser all'URL:**
  - <http://localhost/ciao.html>

```
<html>
<head>
  <title>saluti</title>
</head>
<body>
  <p>Ciao!</p>
</body>
</html>
```

# PHP - verifica installazione

- **caricare il file "ciao.php" nella DocumentRoot di Apache**
  - C:\xampp\htdocs" (in MS Windows)
- **aprire il browser all'URL:**
  - <http://localhost/ciao.php>

```
<html>
<head>
  <title>saluti</title>
</head>
<body>
  <p> <?php echo "Ciao da PHP!" ?> </p>
</body>
</html>
```