



# RPI平台建置

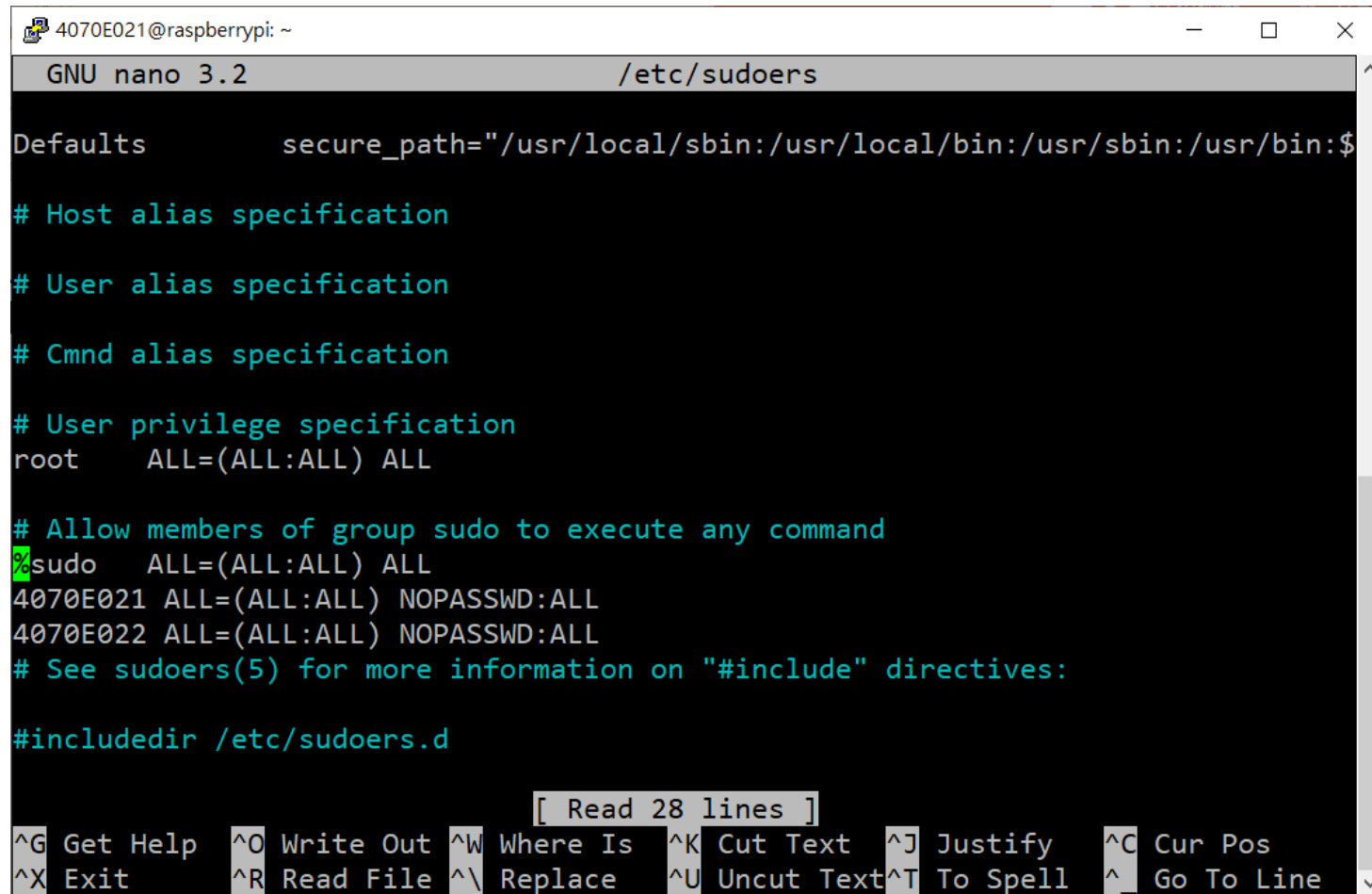
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姓名：蘇宇祥 指導老師：周志學

# 1-1.列出學號(4070E021)

```
4070E021@raspberrypi: ~  
login as: 4070E021  
4070E021@192.168.3.2's password:  
Linux raspberrypi 5.4.79-v7+ #1373 SMP Mon Nov 23 13:22:33 GMT 2020 armv7l  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
Last login: Wed Dec  2 13:12:38 2020 from 192.168.3.1  
  
SSH is enabled and the default password for the 'pi' user has not been changed.  
This is a security risk - please login as the 'pi' user and type 'passwd' to set  
a new password.  
  
4070E021@raspberrypi:~ $ ls /home/ -la  
total 20  
drwxr-xr-x  5 root      root      4096 Dec  2 13:08 .  
drwxr-xr-x 18 root      root      4096 Dec  2 13:04 ..  
drwxr-xr-x  3 4070E021 4070E021 4096 Dec  2 13:14 4070E021  
drwxr-xr-x  3 4070E022 4070E022 4096 Dec 18 15:52 4070E022  
drwxr-xr-x 15 pi        pi        4096 Dec 18 15:55 pi  
4070E021@raspberrypi:~ $
```

# 1-2. 確認學號加入權限

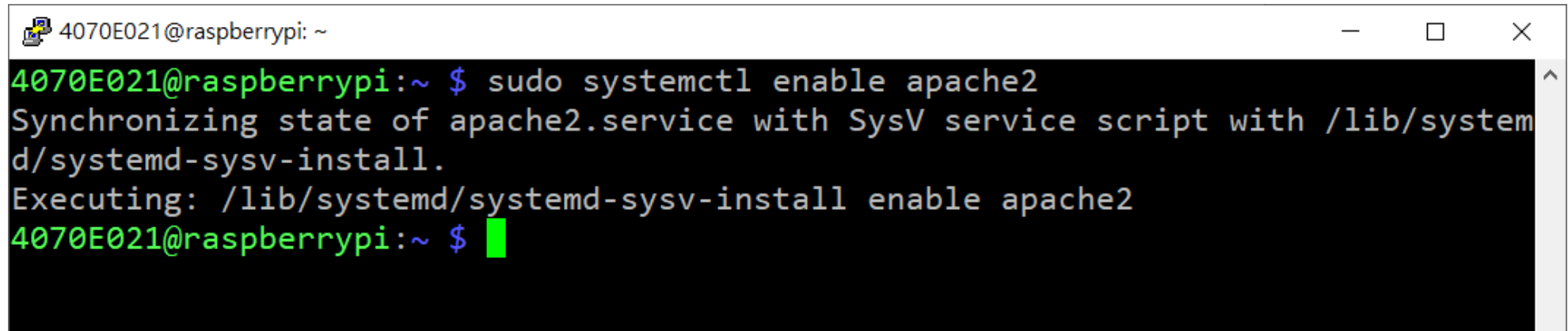


```
4070E021@raspberrypi: ~
GNU nano 3.2 /etc/sudoers
Defaults        secure_path="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:$
# Host alias specification
# User alias specification
# Cmnd alias specification
# User privilege specification
root    ALL=(ALL:ALL) ALL
# Allow members of group sudo to execute any command
%sudo    ALL=(ALL:ALL) ALL
4070E021 ALL=(ALL:ALL) NOPASSWD:ALL
4070E022 ALL=(ALL:ALL) NOPASSWD:ALL
# See sudoers(5) for more information on "#include" directives:
#include_dir /etc/sudoers.d
[ Read 28 lines ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Spell  ^_ Go To Line
```

## 2. 安裝apache2套件

```
4070E021@raspberrypi: ~  
i-vars ...  
Setting up lxplug-volumepulse (0.2) ...  
Setting up cups-client (2.2.10-6+deb10u4) ...  
Setting up cups (2.2.10-6+deb10u4) ...  
Updating PPD files for cups ...  
Updating PPD files for cups-filters ...  
Updating PPD files for gutenprint ...  
Updating PPD files for hpcups ...  
Updating PPD files for postscript-hp ...  
Processing triggers for desktop-file-utils (0.23-4) ...  
Processing triggers for mime-support (3.62) ...  
Processing triggers for hicolor-icon-theme (0.17-2) ...  
Processing triggers for gnome-menus (3.31.4-3) ...  
Processing triggers for libglib2.0-0:armhf (2.58.3-2+deb10u2) ...  
Processing triggers for libc-bin (2.28-10+rpi1) ...  
Processing triggers for man-db (2.8.5-2) ...  
Processing triggers for dbus (1.12.20-0+deb10u1) ...  
Processing triggers for shared-mime-info (1.10-1) ...  
Processing triggers for install-info (6.5.0.dfsg.1-4+b1) ...  
Setting up pi-package (0.8) ...  
Processing triggers for initramfs-tools (0.133+deb10u1) ...  
4070E021@raspberrypi:~ $
```

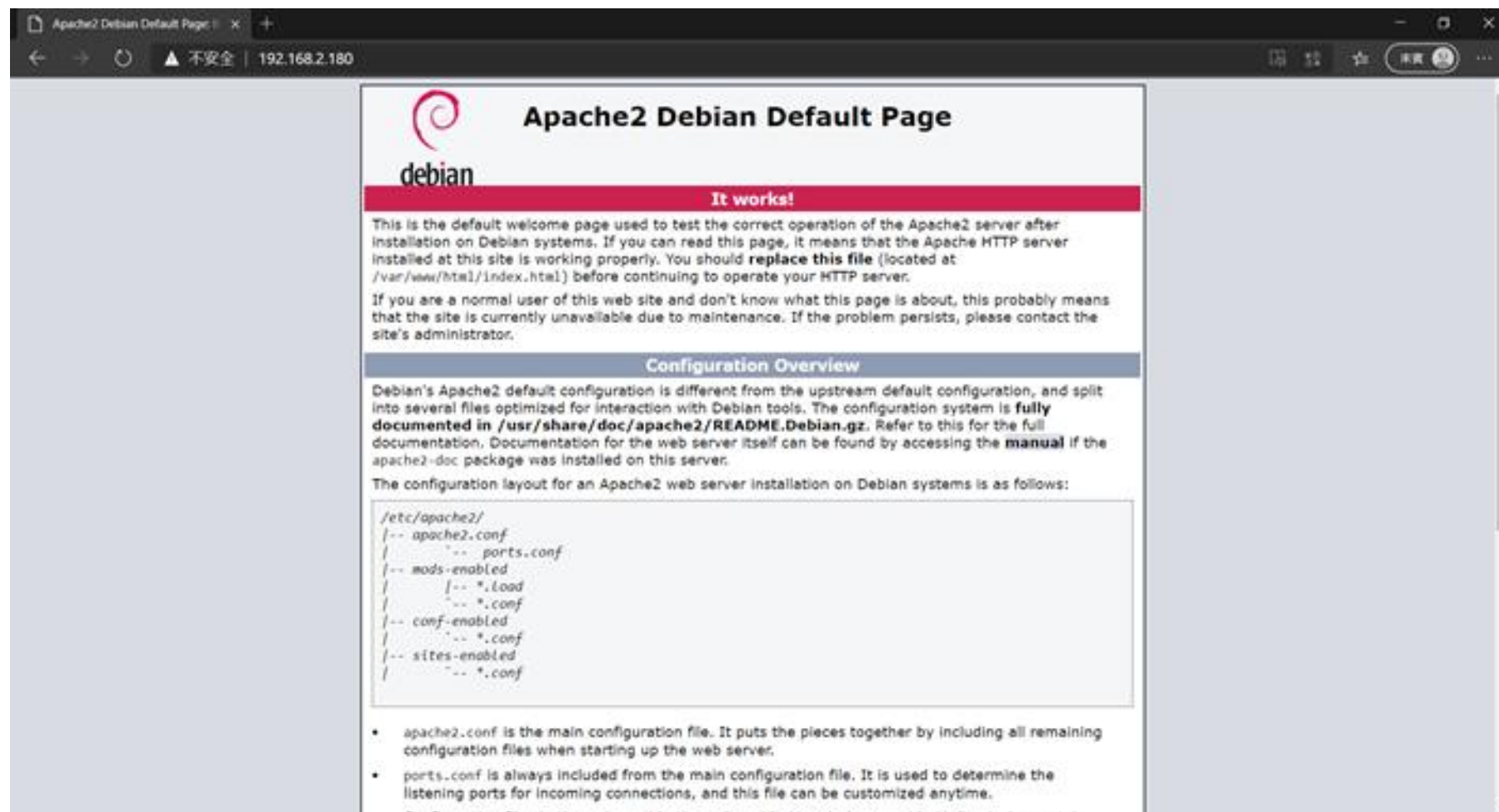
### 3. 啟動apache2



```
4070E021@raspberrypi: ~  
4070E021@raspberrypi:~ $ sudo systemctl enable apache2  
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.  
Executing: /lib/systemd/systemd-sysv-install enable apache2  
4070E021@raspberrypi:~ $
```

A terminal window titled "4070E021@raspberrypi: ~" with standard window controls. The terminal output shows the command `sudo systemctl enable apache2` being executed. The system responds with "Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install." and "Executing: /lib/systemd/systemd-sysv-install enable apache2". The prompt returns to `4070E021@raspberrypi:~ $` with a green cursor.

## 4. 測試網頁伺服器



## 5. 安裝php與apache的php模組

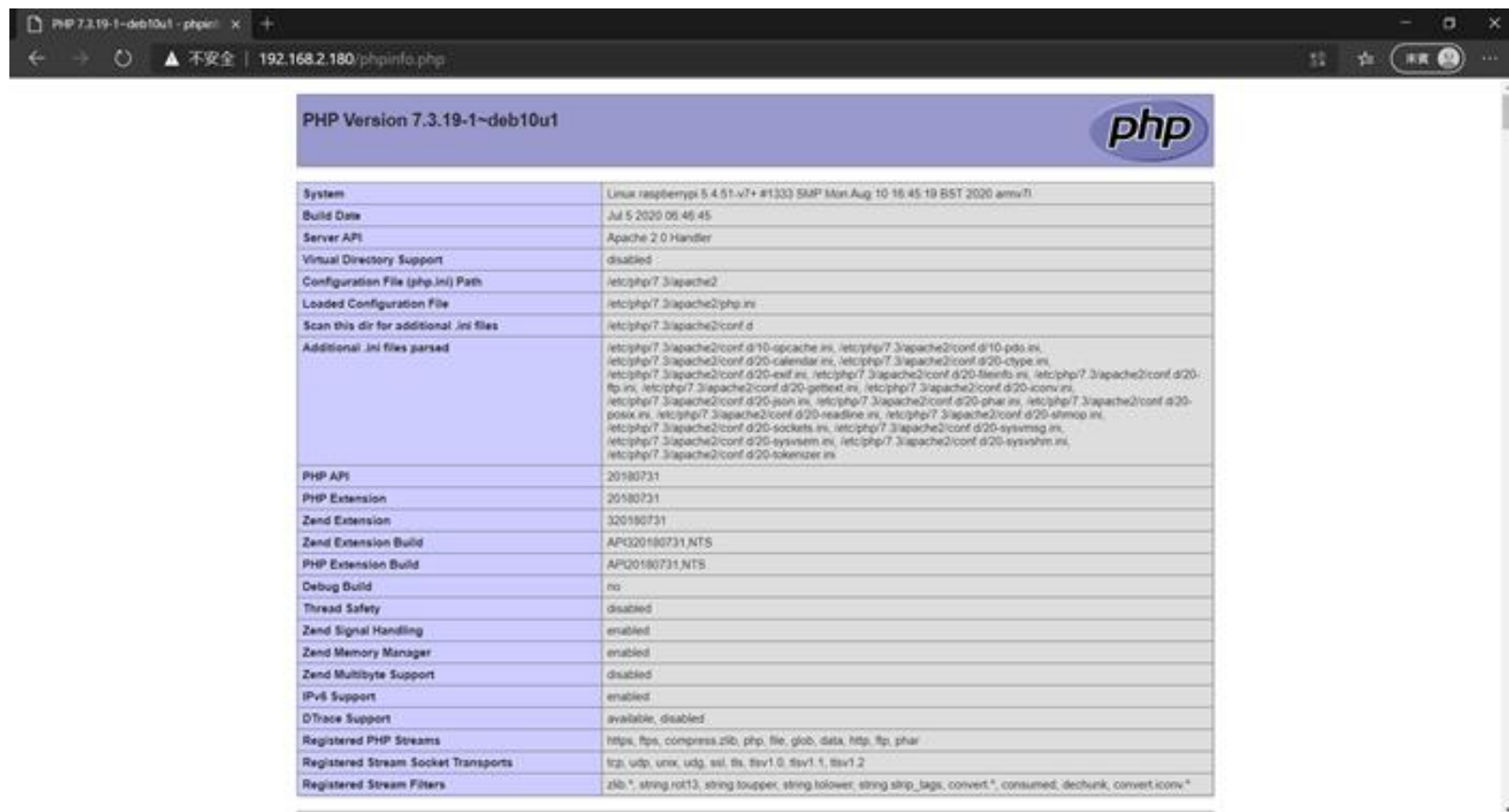
```
4070E021@raspberrypi: ~  
4070E021@raspberrypi:~ $ sudo systemctl enable apache2  
Synchronizing state of apache2.service with SysV service script with /lib/systemd/sy  
d/systemd-sysv-install.  
Executing: /lib/systemd/systemd-sysv-install enable apache2  
4070E021@raspberrypi:~ $ sudo apt install php libapache2-mod-php -y  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
libapache2-mod-php is already the newest version (2:7.3+69).  
php is already the newest version (2:7.3+69).  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
4070E021@raspberrypi:~ $ sudo apt install php php-mbstring  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
php is already the newest version (2:7.3+69).  
The following NEW packages will be installed:  
  php-mbstring php7.3-mbstring  
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.  
Need to get 485 kB of archives.  
After this operation, 1,497 kB of additional disk space will be used.  
0% [Waiting for headers]
```

## 6. 進入網頁根目錄並列出當前檔案

```
4070E021@raspberrypi: /var/www/html
4070E021@raspberrypi:~ $ cd /var/www/html
4070E021@raspberrypi:/var/www/html $ ls -la
total 24
drwxr-xr-x 2 root root 4096 Dec 18 15:48 .
drwxr-xr-x 3 root root 4096 Dec 18 15:31 ..
-rw-r--r-- 1 root root 10701 Dec 18 15:31 index.html
-rw-r--r-- 1 root root 26 Dec 18 15:48 phpinfo.php
4070E021@raspberrypi:/var/www/html $
4070E021@raspberrypi:/var/www/html $
```



# 7.php測試網頁



PHP Version 7.3.19-1~deb10u1	
System	Linux raspberrypi 5.4.51-v7+ #1303 SMP Mon Aug 10 16:45:19 BST 2020 armv7l
Build Date	Jul 5 2020 06:46:45
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.3/apache2
Loaded Configuration File	/etc/php/7.3/apache2/php.ini
Scan this dir for additional .ini files	/etc/php/7.3/apache2/conf.d
Additional .ini files parsed	/etc/php/7.3/apache2/conf.d/10-apache.ini, /etc/php/7.3/apache2/conf.d/10-pdo.ini, /etc/php/7.3/apache2/conf.d/20-calendar.ini, /etc/php/7.3/apache2/conf.d/20-ctype.ini, /etc/php/7.3/apache2/conf.d/20-curl.ini, /etc/php/7.3/apache2/conf.d/20-finfo.ini, /etc/php/7.3/apache2/conf.d/20-ftp.ini, /etc/php/7.3/apache2/conf.d/20-gettext.ini, /etc/php/7.3/apache2/conf.d/20-iconv.ini, /etc/php/7.3/apache2/conf.d/20-json.ini, /etc/php/7.3/apache2/conf.d/20-pear.ini, /etc/php/7.3/apache2/conf.d/20-posix.ini, /etc/php/7.3/apache2/conf.d/20-readline.ini, /etc/php/7.3/apache2/conf.d/20-shmop.ini, /etc/php/7.3/apache2/conf.d/20-sockets.ini, /etc/php/7.3/apache2/conf.d/20-sysmsg.ini, /etc/php/7.3/apache2/conf.d/20-syssem.ini, /etc/php/7.3/apache2/conf.d/20-sysshm.ini, /etc/php/7.3/apache2/conf.d/20-tokenizer.ini
PHP API	20180731
PHP Extension	20180731
Zend Extension	320180731
Zend Extension Build	APC20180731.NTS
PHP Extension Build	APC20180731.NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	enabled
Zend Memory Manager	enabled
Zend Multibyte Support	disabled
IPv6 Support	enabled
DTrace Support	available, disabled
Registered PHP Streams	https, ftps, compress.zlib, php, file, glob, data, http, ftp, phar
Registered Stream Socket Transports	tcp, udp, unix, udg, ssl, tls, tlsv1.0, tlsv1.1, tlsv1.2
Registered Stream Filters	zlib *, string.rot13, string.toupper, string.tolower, string.strip_tags, convert.*, consumed, dechunk, convert.iconv*