Installation of DXSpider on a Raspberry Pi v1.06

System Initialization

```
raspi-config

info                    Information about this tool
expand-rootfs           Expand root partition to fill SD card
overscan                Change overscan
configure-keyboard      Set keyboard layout
change_pass             Change password for 'pi' user
change_locale           Set locale
change_timezone         Set timezone
memory_split            Change memory split
ssh                     Enable or disable ssh server
boot_behaviour          Start desktop on boot?
update                  Try to upgrade raspi-config
<Select>                                          <Finish>
```

`expand-rootfs - yes`
- Select this option to expand the allocated storage space to fill you SD Card

`configure-keyboard – select you keyboard`
- Configure this for the keyboard you are using

`change_pass`
- This option adds a password for user – pi

`change_locale - en-us`
- Change to your local

`change_timezone`
- Set to your timezone

`memory_split`
- Leave as-is you can change it later

`ssh`
- enable secure shell

`boot_behaviour`
- a desktop is not needed for DXSpider, and just uses resources

`update`
- select update to retrieve all updates

Begin DXSpider Installation

`$ sudo apt-get install mc`
- mc is a good navigational tool with editor

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```
$ sudo apt-get install wget
```
- wget is a good tool for downloading files off the Web
- wget may already be installed on some versions of Raspbian

```
$ sudo apt-get install git-core
```
- git is the tool to retrieve DXSpider and future updates

```
$ sudo groupadd spider
$ sudo useradd -m sysop -G spider
$ sudo usermod -g spider sysop
```
- follow the instructions to set the full name and password
- if you are not prompted for a password enter the following and add a password:
```
$ sudo passwd sysop
$ sudo adduser sysop sudo
```

```
$ sudo hostname n6ws-pi
```
- any hostname will do

```
$ sudo apt-get install libtimedate-perl
$ sudo apt-get install libnet-telnet-perl
$ sudo apt-get install libcurses-perl
$ sudo apt-get install libdigest-sha1-perl
$ sudo apt-get install libdata-dumper-simple-perl
```
- Adds the necessary perl modules for DXSpider
- OK4BX noted the latest build for SHA was changed to libdigest-sha-perl. If you receive an error in the step for sha1, use the following:
```
$ sudo apt-get install libdigest-sha-perl
```
- This method work last week, but does not work now.
- Even with using the --fix-missing switch, you may not be able to load sha
- If anyone knows how to load sha1-perl, please let me know.

```
$ sudo su
# cd ~sysop
# ln -s /home/sysop/spider /spider
# shutdown -r now
```

After restart login as sysop
```
$ cd ~
$ mkdir spider
$ git clone git://scm.dxcluster.org/scm/spider spider.new
$ cp -a /home/sysop/spider.new/.git /spider
$ rm -rf spider.new
$ cd /spider
$ git reset --hard
```

```
$ sudo su
# cd /home/sysop/
# chown -R sysop.spider spider
# find . -type d -exec chmod 2775 {} \;
# find . -type f -exec chmod 775 {} \;
```

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```
# exit

$ cd /spider
$ mkdir local
$ mkdir local_cmd
$ cp perl/DXVars.pm.issue local/DXVars.pm
$ cp perl/Listeners.pm local/Listeners.pm
$ cd local
$ mc
```
- edit DXVars.pm following the instructions in the comments
- edit Listeners.pm to remove "#" from the line for the port, and add additional ports as needed:
```
@listen = (
    ["0.0.0.0", 7300],
);
```
- exit mc

```
$ cd /spider/perl/
$ ./create_sysop.pl

$ cd /tmp
$ wget http://ftp.w1nr.net/usdbraw.gz
```
- The next step can take a few minutes
```
$ /spider/perl/create_usdb.pl /tmp/usdbraw.gz

$ cd /spider/src
$ make

$ cd /spider/perl
$ ./cluster.pl
```

- on a separate ssh or system console, log into the system as sysop

```
$ /spider/perl/console.pl
```

- from the command line of the console enter:
```
load/usdb
```

- Edit /etc/inittab to add the following two lines at the end of the file.
```
##Start DXSpider on bootup and respawn it should it crash
DX:2345:respawn:/bin/su -c "/usr/bin/perl -w /spider/perl/cluster.pl" sysop >/dev/tty6
```

That is pretty much all you have to do to get the basic DXSpider up an running on a Raspberry Pi.

To receive DX Spots you will have to arrange with another Sysop to connect to another node. Follow the instructions under "Setting up node connects" to create connections:
http://wiki.dxcluster.org/index.php/Configuration