

Arch HAM Radio Workstation Setup

07/09/2014 07:06 AM - Daniel Curtis

Status:	Closed	Start date:	07/09/2014
Priority:	Normal	Due date:	
Assignee:	Daniel Curtis	% Done:	100%
Category:	Workstation	Estimated time:	1.00 hour
Target version:	Arch Linux	Spent time:	2.00 hours

Description

As an amateur radio enthusiast I have need for a few pieces of software. This is a simple guide on setting up my Arch Linux installation with the required software needed for amateur radio usage. Currently my software load out for HAM radio includes:

- **Chirp**: Used to program my Baofeng UV-5R+
- **GNUradio**: A powerful digital signal processing application
- **GPredict**: Used to get a fix on amateur radio satellites
- **Gqrx**: Used to interface with software defined radios
- **Stellarium**: Not really used for radio, but great for radio astronomy
- **Audacity**: Used for recording and manipulating audio files
- **Xastir**: An open-source program that provides full-featured, client-side access to APRS.
- **fl\_moxgen**: Moxon antenna designer
- **hamsolar**: Small desktop display of the current solar indices
- **splat**: rf signal propagation, loss, and terrain analysis
- **sunclock**: Useful for predicting grayline propagation paths
- **xnec2c**: Electromagnetic antenna modeler
- **trustedqsl**: QSL application for ARRL's Logbook of the World
- **cty**: package contains databases of entities (countries), prefixes and callsigns that are used by amateur radio logging software.
- **dxcc**: a small program for determining ARRL DXCC entity of a ham radio callsign
- **nato**: Python script to convert string into NATO alphabet representation
- **hamradio-menus**: Ham radio (specific) XDG-compliant menu

Prepare the environment:

- Update the system:

```
sudo pacman -Syu
```

- Add user bob to the tty and uucp groups for serial access:

```
gpasswd -a bob uucp
```

- For groups to take effect, the user must log out and and log back in.

Install yaourt to handle AUR packages

- Install [yaourt](#)

Installation

- To start, install the packages that are available from the Arch repositories:

```
sudo pacman -S gnuradio gqrx audacity stellarium
```

- Install chirp from the AUR:

```
yaourt chirp
```

- Install gpredict from the AUR

```
yaourt gpredict
```

- Install fl\_moxgen from the AUR:

```
yaourt fl_moxgen
```

- Install hamsolar from the AUR:

```
yaourt hamsolar
```

- Install splat from the AUR:

```
yaourt splat
```

- Install sunclock from the AUR:

```
yaourt sunclock
```

- Install xnec2c from the AUR:

```
yaourt xnec2c
```

- Install cty from the AUR:

```
yaourt cty
```

- Install dxcc from the AUR:

```
yaourt dxcc
```

- Install nato from the AUR:

```
yaourt nato
```

- Install trustedqsl from the AUR:

```
yaourt trustedqsl
```

- Install hamradio-menus from the AUR:

```
yaourt hamradio-menus
```

## Resources

- [https://wiki.archlinux.org/index.php/Amateur\\_radio](https://wiki.archlinux.org/index.php/Amateur_radio)

## History

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### #1 - 10/04/2014 11:53 PM - Daniel Curtis

- Subject changed from Arch HAM Radio User Software Load Out to Arch HAM Radio User Setup
- Description updated
- % Done changed from 50 to 70

### #2 - 12/26/2014 08:23 PM - Daniel Curtis

- Description updated
- Status changed from In Progress to Resolved
- % Done changed from 70 to 100

### #3 - 12/26/2014 08:24 PM - Daniel Curtis

- Description updated

### #4 - 04/11/2015 12:45 PM - Daniel Curtis

- Description updated
- Category set to Workstation
- Target version set to Arch Linux

### #5 - 04/11/2015 12:48 PM - Daniel Curtis

- Subject changed from Arch HAM Radio User Setup to Arch HAM Radio Workstation Setup
- Description updated

### #6 - 04/11/2015 12:59 PM - Daniel Curtis

- Description updated

### #7 - 04/11/2015 01:14 PM - Daniel Curtis

- Status changed from Resolved to Closed

### #8 - 07/15/2016 07:47 PM - Daniel Curtis

- Description updated