NetBSD keyboard configuration

Summary

In this part i'm going to configure my non-us keyboard by changing or adding some system configuration files for keyboard. **US** keyboard users can skip this part.

This part requires you to know basic usage of **vi** program. If you don't know how to use **vi** or **vim** check this website first: [NetBSD vi tutorial](#)

vi is almost always pre-installed in every operating system. Learning **vi** is never a bad idea.

vi basic usage cheatsheet:

Command	Meaning
h =	move cursor left
j =	move cursor down
k =	move cursor up
l =	move cursor right
a =	add after char
i =	add before char
A =	add end of line
I =	add start of line
o =	add below line
O =	add above line
dd =	delete one line
x =	delete one char
:w =	save
:q =	quit
:wq =	save and quit
:w! =	force save
:q! =	force quit

Instructions

1- Start your system and login.

```
/etc/rc.d/postfix exited with code 1
Starting inetd.
Starting cron.
The following components reported failures:
    /etc/rc.d/postfix
See /var/run/rc.log for more information.
Sun Jan  9 02:38:04 UTC 2022

NetBSD/i386 (Amnesiac) (constty)

login: a
Password:
Jan  9 02:38:28  login: a on tty constty
Last login: Sat Jan  8 17:05:58 2022 on constty
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    2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017,
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NetBSD 9.2 (GENERIC) #0: Wed May 12 13:15:55 UTC 2021

Welcome to NetBSD!

$ ▮
```

2- Changing the system configuration requires privilege. So switch to **root** user with **su** command.

```
$ su
Password:
Jan  8 23:43:56  su: a to root on /dev/constty
# ▮
```

3- Open **wscons.conf** file with **vi** editor.

```
# vi /etc/wscons.conf █
```

4- I'm using **tr** keyboard. So im going to add **encoding tr** configuration in this file.

```
# Screen 0 is already configured as console in most cases.
#   Uncomment if a serial console is used.
#screen 0        -        vt100
screen  1        -        vt100
screen  2        -        vt100
screen  3        -        vt100
screen  4        -        -
#screen 4        80x25bf vt100
# Note: You must uncomment the 'font     ibm' line above to get a useful
#       font for any 50 line screens.
#screen 5        80x50   vt100

#keyboard        auto

# Select a kernel builtin keyboard map by uncommenting the following line and
# altering the country code to your requirements.
# See wskbd(4) for a full list of supported options.
encoding tr      ◀━━━━
#encoding us.swapctrlcaps

# Redefine individual keys from a file containing "keysym" and/or "keycode"
# entries.
# See wsconsctl(8) and /usr/share/wscons/keymaps for more details.
#mapfile /usr/share/wscons/keymaps/pckbd.sv.svascii
/etc/wscons.conf: 60 lines, 1887 characters
```

5- I'm also going to edit keymaps because my current keyboard doesn't have a less, greater key. (These characters: <, >, |) This requires me to go to

/usr/share/wscons/keymaps/ folder. And create a new file named **overlay.tr** with **vi** editor.(You can use anything as file name but do not forget it. We're gonna need it)

```
$ cd /usr/share/wscons/keymaps/
$ vi overlay.tr █
```

6- What i'm going to do in this file that i'm going to set some unusable turkish character buttons to bar | less < and greater > characters. For example there is a ş character in my keyboard. It's unusable in console but i might need | character so

i've added **keycode 39 = bar** line in this file to set şbutton to bar | character.
I've also set ö and ç buttons to use less < and greater >. (You can check your full
keymap with this command: **wsconsctl map | less**)

```
# tr overlay map file

keycode 39 = bar
keycode 51 = less
keycode 52 = greater
~
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```

7- Again, open your **wscons.conf** file with **vi** editor.

```
# vi /etc/wscons.conf
```

8- Add **mapfile /usr/share/wscons/keymaps/overlay.tr** configuration and save it.

```
# altering the country code to your requirements.
# See wskbd(4) for a full list of supported options.
encoding tr
#encoding us.swapctrlcaps

# Redefine individual keys from a file containing "keysym" and/or "keycode"
# entries.
# See wsconsctl(8) and /usr/share/wscons/keymaps for more details.
mapfile /usr/share/wscons/keymaps/overlay.tr    ⬅

# Set arbitrary wscons variable using specified control device
#        ctldev   var                value
#setvar ttyE0     font               ibm
#setvar ttyE1     font               ibm

# Uncomment for ISO 8859-2 support
#setvar ttyE0     font               latin2
#setvar ttyE1     font               latin2
#setvar ttyE2     font               latin2
#setvar ttyE3     font               latin2

# Change keyboard repeat speed to faster settings.
#setvar wskbd     repeat.del1        250
#setvar wskbd     repeat.deln        30
```

9- Restart the system with **shutdown -r now** to load these new keyboard configurations.

```
# shutdown -r now
```

```
# shutdown -r now
Shutdown NOW!
shutdown: [pid 445]
# wall: You have write permission turned off; no reply possible

*** FINAL System shutdown message from a@ ***
System going down IMMEDIATELY


Mar  2 05:23:08  shutdown: reboot by a:

System shutdown time has arrived

About to run shutdown hooks...
Stopping cron.
Stopping inetd.
Saved entropy to /var/db/entropy-file.
Forcibly unmounting /var/shm
Removing block-type swap devices
swapctl: removing /dev/dk1 as swap device
Wed Mar  2 05:23:11 UTC 2022

Done running shutdown hooks.
Mar  2 05:23:16  syslogd[166]: Exiting on signal 15
```

10- When system starts, login with user and try your configured buttons. If you can see your characters it means that your keyboard configurations are working.

/etc/rc.d/postfix exited with code 1
Starting inetd.
Starting cron.
The following components reported failures:
    /etc/rc.d/postfix
See /var/run/rc.log for more information.
Sun Jan 9 04:16:12 UTC 2022

NetBSD/i386 (Amnesiac) (constty)

login: a
Password:
Jan 9 04:16:18 login: a on tty constty
Last login: Sun Jan 9 01:15:15 2022 on constty
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