Switching Courtesy Tones via DTMF in ASL

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This document will hopefully explain how to do just as the title says: Change courtesy tones based on calling DTMF (scripts). Once that is achieved, the magic of Linux can take over and the scripts be called by commands, cron jobs, or DTMF tones. This script assumes you can walk yourself around Linux but will provide guidance on specific steps.

BACKSTORY: I was approached by the top brass of the local Skywarn group which utilizes my repeater system. They were asking if they could enter some DTMF tones to put the repeater into a "Skywarn Mode" which included dropping all web links and changing the courtesy tones. Using the existing commands and simple bash scripting showed that dropping the web link was real obvious, but how was I to change the courtesy tone?

SYNOPSYS: Asterisk can call other files should the exist for additional information. Inside the rpt.conf file, we will remove the tone definitions and place it in another external file. In it is place we will include a reference to that file. Now using some bash scripting, we will copy over tone definitions from another file into this one. Due to the way Allstar loads conf files, we will then have to reload asterisk.

STEP #1: MAKE A BACKUP OF RPT.CONF! In side the asterisk Folder, enter the following command:

<div align="center">

cp   rpt.conf   rpt.conf_BACKUP_PreCourtesy

</div>

The command will then ask: Are you sure? Type **yes** and hit enter. Should you ever need to deploy this back up, simply reverse the order of rpt.conf and rpt.conf_BACKUP_PreCourtesy.

STEP #2: Removal of the Tone stanza. This is done by hitting nano rpt.conf and going down to pretty much the end of the file. Delete (backspace or otherwise) the entire stanza. Pretty much everything you see here:

[telemetryXXXX]

ct1=|t(350,0,100,2048)(500,0,100,2048)(660,0,100,2048)

ct2=|t(660,880,150,2048)

ct3=|t(440,0,150,4096)

ct4=|t(550,0,150,2048)

ct5=|t(660,0,150,2048)

ct6=|t(880,0,150,2048)

ct7=|t(660,440,150,2048)

ct8=|t(700,1100,150,2048) ; 2048 amplitude

remotetx=|t(1633,0,50,3000)(0,0,80,0)(1209,0,50,3000);

remotemon=|t(1209,0,50,2048)

cmdmode=|t(900,903,200,2048)

functcomplete=|t(1000,0,100,2048)(0,0,100,0)(1000,0,100,2048)

patchup=rpt/callproceeding

patchdown=rpt/callterminated

…And replace it with the following line :

#includeifexists   tones.conf

And so, that portion of the file should now look like the following:

```
[macro45734]
;Macro number = command string (each command separated by space) -end with
1=*81 *80#    ; play time and voice ID

;TONES STANZA MOVED TO TONES.CONF
#includeifexists tones.conf

; WAIT TIMES

;
; This section allows wait times for telemetry events to be adjusted
```

STEP #3: Creating Tone Files. In this section, create 3 tone files. We have to create one called "*tones.conf*" as it's the one we are referencing in the previous section… Other than that, I name the two other tone files "*tones_Skywarn.conf*" and "*tones_normal.conf*" but either way, to start, **put the default tone stanza (above) in each file**. I would recommend that if you do this, have a tones_normal.conf file to reference as your normal day to day operating tones. You can call the other file whatever you want that makes sense to you (Preferably fitting the same format). Modify "*tones_skywarn.conf"* for the tones you wish.

STEP #4: Scripting. Create a new file named something that makes sense to you, I called mine "*tone_select_normal.sh*" In this file, enter the following lines of code:

```
#!/bin/bash

cp  tones_normal.conf  tones.conf  -f

service  asterisk  restart
```

What this does is changes the tone file, then restarts asterisk. You can also include other commands such as "*asterisk -rvv "rpt fun (node #) *74'"*" to disconnect all nodes and links. Make sure to place this before the restart line.

You will need to create one of these files for each different tone file you have. In my case I created "*tone_select_Skywarn.sh*" with the same script as above but the tones_normal.conf was changed to tones_Skywarn.conf.

STEP #5: Finishing up. When you get to this point, type the following into the command line:

<div align="center">

chmod +x tone_select_Skywarn.sh

</div>

This will make the file executable. Do the same for the files you create by simply replacing "*tone_select_Skywarn.sh"* with the file name. Now if you type "./tone_select_Skywarn.sh" it should replace the tones.conf file and automatically restart asterisk, thus changing your courtesy tone(s). You can then call this shell script via a DTMF or cronjob.

Found this useful? Need some advice/help? Don't hesitate to reach out to the author:

k5dvt_@_arrl.net (Remove underscores). I'm also good on QRZ.