Audio

- What do those state files mean
- Why are they so large
- How do they control audio paths
- How does this control codec power use
Analogue Diagram

WM8753 Control Diagram

Legend:
- Function Control bits in black
- Powerdown Control bits in blue

Note: This diagram includes a control bit required to configure signal path. It does not include control bits for all additional features or digital control bits, and interface control, PLL, and GPIO setup are not shown in this diagram.
What do those state files mean

control.1 {
    comment.access 'read write'
    comment.type INTEGER
    comment.count 2
    comment.range '0 - 255'
    iface MIXER
    name 'PCM Volume'
    value.0 235
    value.1 235
}
Why are they so large

• Codec driver is generic so there are controls which are not used in Neo1973
• One control for each device on the diagram
• Some extra controls for Amp and Mode on the Neo1973
• 94 Controls in total on GTA02
How do they control audio paths

c control.91 {
    comment.access 'read write'
    comment.type BOOLEAN
    comment.count 1
    iface MIXER
    name 'DAPM Handset Mic Switch'
    value false
}

control.92 {
    comment.access 'read write'
    comment.type BOOLEAN
    comment.count 1
    iface MIXER
    name 'DAPM Handset Spk Switch'
    value false
}
How do they control audio paths

- DAPM system in driver automatically finds route between “ON” components.
- MUX/SWITCH components controls select paths.
How does this control codec power use

- All not used components in Codec are powered down by DAPM when not in an active path.
- This is good for mobile devices like Neo1973
- We are ahead of Windows here as it DOES NOT have this fine controlled power system.