

linuxcnc 2.8.2 - Debian 10 Buster PREEMPT-RT ISO
Problems with Mesa Configuration Wizard

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The linuxcnc environment was copied to the configs directory in 2.8.2. Linuxcnc was started using the desktop icon (referred to as "icon"). Linuxcnc noted an old 4.7.14 version and ask about upgrading. This was done and linuxcnc worked well and was able to control machine motion.

The Wizard *.pncconf file was transferred from the 4.7.14 version. This was fed into the 2.8.2 Wizard program. It generated a configuration without complaint (referred to a "pncconf"). Linuxcnc starts with this configuration without complaint. However, there is no axis motion. Similarly data was re-entered into the 2.8.2 Wizard with the same results.

The main *.ini and *.hal files (icon.ini/icon.hal | pncconf.ini/pncconf.hal) were compared with the following results (as well as I can view them). Note "icon" works while "pncconf" does not.

KOMPARE (diff)

```
custom_gvcp.hal identical
custom_postgui.hal    identical
custom.hal            identical
linuxcnc.var          numbers for G54 X/Y/Z are set in "icon"
postgui_call_list.hal identical
shutdown.hal         identical
tool.tbl             "icon" has some tools set, "pncconf" has none
```

*.ini files

```
"icon" has BACKLASH and increased STEPGEN_MAXACCEL
"icon" & "pncconf" have different max velocity (should be OK)
Spindle section wasn't set up for either
```

*.hal files

In X AXIS:

"icon" (working version) contains:

```
net x-vel-cmd      => pid.x.command-deriv
net x-output      => pid.x.output
```

"pncconf" instead contains:

```
net x-output      <= pid.x.output
```

"icon" contains:

```
setp hm2_5i25.0.gpio.004.invert_output true
```

"pncconf" instead contains:

```
setp hm2_5i25.0.stepgen.00.direction.invert_output true
```

"icon" contains:

```
net x-output      => hm2_5i25.0.stepgen.00.velocity-cmd
```

"pncconf" alternately contains:

```
net x-output      <= hm2_5i25.0.stepgen.00.velocity-cmd
```

The above differences repeat for Y/Z with what look like appropriate numbers changed.

In "HALUI signals" section:

"icon" uses

```
net joint-select-a halui.axis.x.select
```

"pncconf" insread uses

```
net axis-select-x halui.axis.x.select
```

and this repeats for all Y/Z