

Sunxi KMS driver

A new display driver for allwinner SoCs.

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Sunxi?

- <http://linux-sunxi.org/>
- Cheap and omnipresent.
 - Loads of development boards.
 - Even more cheap android tablets.
- Probably most free competitive ARM SoC today.
- Big and active development community.
- The target of choice for the Lima driver.

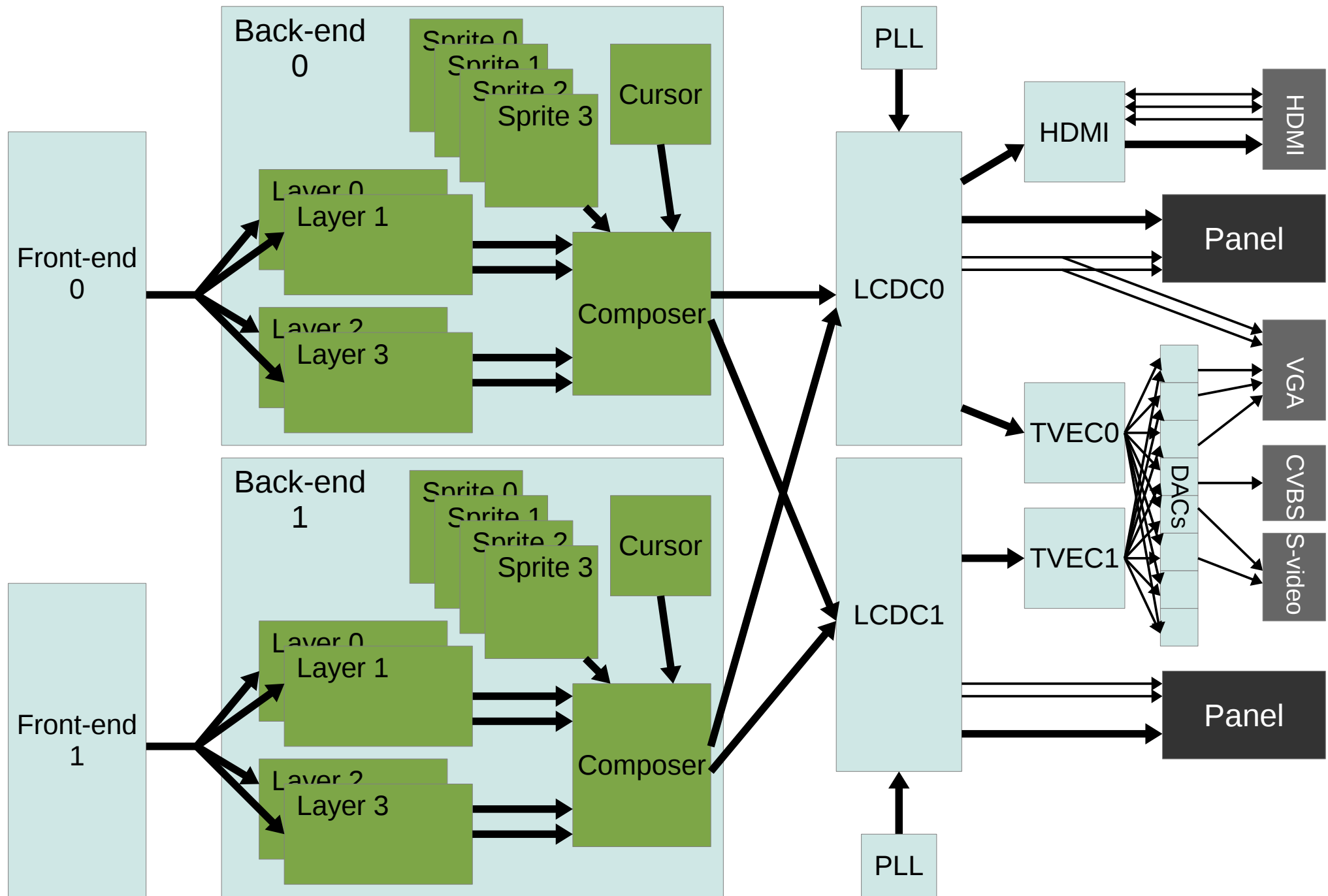
Sunxi disp driver

- Holds back the sunxi project.
- Horrible and messy.
- A new copy for each SoC generation.
- Holds back the sunxi project, and lima!
- Cleanup work:
 - Sun4i/5i unification done in okt 2012.
 - Sun7i merged by Hans de Goede in June 2013.
 - Local cleanup/restructuring throughout 2013.

The plan...

- Structure!
- dma-buf/fence for mali integration.
- First sunxi-3.4, then mainline.
- Fully support even tablets.
- Gloss over, initially:
 - HDMI infoframe (and audio).
 - colour space conversion.
 - CVBS/S-Video.

Sunxi display engine.



Working

- Clock gating.
- Basic memory handling.
- Dotclock and basic modesetting.
- Supported Encoders/Connectors:
 - VGA with load detection.
 - HDMI (basic).
- Cursor (of sorts).
- KMS Planes.

Todo

- Sunxi-3.4:
 - DDC (started),
 - LCD/LVDS (started).
 - Sun5i
 - dma-buf.
 - Interrupts.
 - Palette.

-> Cleanup and release in February still.
- Mainline:
 - Device tree.
 - dma-fence.

Questions?