The First Stable Libcamera Release

A Call For Public API Review

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the libcamera team
ELC-E 2019
Lyon, FR
/* - Project Highlights */
-- Started in late 2018, we're very young
-- 5 part time core developers
- Project Highlights

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  - Rockchip RK3399
  - In progress:
    - RaspberryPi 3 and 4
    - UVC cameras
    - VIMC test driver
    - next ?
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* -- Contacts
  * - libcamera.org
  * - #libcamera @freenode
  * - git://linuxtv.org/libcamera.git
  * - https://lists.libcamera.org/listinfo/libcamera-devel
* 
*********************************************************************/
- Technical motivations and resources
  - Laurent @ELC-E 2018: Kickstart
    - https://www.youtube.com/watch?v=GlhV7tiUji0
  - Jacopo @FOSDEM 2019: First supported platform
  - Kieran @Linaro Connect 2019: Second supported platform
    - https://connect.linaro.org/resources/bkk19/bkk19-506/
  - Laurent @OSS-J 2019: Android Camera HAL
    - No video available :( 

******************************************************************************/
/******************************************************************************
Where we come from
+-------------+ +-------------+
| Native     | | LibV4L2   |
| Application | | Application |
+-------------+ +-------------+

+------------------------+
| /dev/video0 |
+------------------------+

Software
----------------------------------|------------------------------------------

Hardware
+-------------------------+
| ! SoC | DMA | <-> | Sensor |
| ! | Engine | ! | ! | |
| ! +-----------------+ | +-----------------+
+----------------------------------------------------------/
Where are we today

+-------------------+
|                  |
| /dev/media0      |
|                  |
+-------------------+

+-------------------+
|                  |
| /dev/v4l-subdev  |
|                  |
+-------------------+

+-------------------+
|                  |
| /dev/video0      |
|                  |
+-------------------+

+-------------------+ +-------------------+ +-------------------+
|                  | ! |                  | ! |                  | V
| /dev/v4l-subdev  | ! | /dev/video1      | ! | /dev/video2      | <'........'
+-------------------+ +-------------------+ +-------------------+

+-------------------+
|                  |
| /dev/video0      |
|                  |
+-------------------+

+-------------------+ +-------------------+ +-------------------+ +-------------------+
|                  | ! |                  | ! |                  | ! |                  | !
| /dev/v4l-subdev  | ! | Software         | ! | Hardware         | ! | Sensor           |
+-------------------+ +-------------------+ +-------------------+ +-------------------+

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<thead>
<tr>
<th>Native</th>
<th>Framework</th>
<th>Native</th>
<th>Android</th>
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<tbody>
<tr>
<td>V4L2</td>
<td>Application</td>
<td>libcamera</td>
<td>Camera</td>
</tr>
<tr>
<td>Application</td>
<td>(gstreamer)</td>
<td>Application</td>
<td>Framework</td>
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| Language : ! |
| Bindings : ! |
| (optional) : ! |

| libcamera |
| +-----------+ |

******************************************************************************/
看了一眼
Slide deck available at
- https://jmondi.org/cgit/elce2019
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- https://jmondi.org/cgit/elce2019

Over-commented libcamera example application
- https://jmondi.org/cgit/elce-cam

And now..

live coding (wish me luck)