# Linux驱动\_pinctrl子系统

## 1.pinctrl子系统初始化

### 1.1 dts树中关于pinctrl的定义

pinctrl@56000000 {

compatible = "samsung,s3c2440-pinctrl";

};

pinctrl\_0: pinctrl@56000000 {

reg = <0x56000000 0x1000>;

wakeup-interrupt-controller {

compatible = "samsung,s3c2410-wakeup-eint";

interrupts = <0 0 0 3>,

<0 0 1 3>,

<0 0 2 3>,

<0 0 3 3>,

<0 0 4 4>,

<0 0 5 4>;

};

};

&pinctrl\_0 {

/\*

\* Pin banks

\*/

gpa: gpa {

gpio-controller;

#gpio-cells = <2>;

};

gpb: gpb {

gpio-controller;

#gpio-cells = <2>;

};

gpc: gpc {

gpio-controller;

#gpio-cells = <2>;

};

gpd: gpd {

gpio-controller;

#gpio-cells = <2>;

};

gpe: gpe {

gpio-controller;

#gpio-cells = <2>;

};

gpf: gpf {

gpio-controller;

#gpio-cells = <2>;

interrupt-controller;

#interrupt-cells = <2>;

};

gpg: gpg {

gpio-controller;

#gpio-cells = <2>;

interrupt-controller;

#interrupt-cells = <2>;

};

gph: gph {

gpio-controller;

#gpio-cells = <2>;

};

gpj: gpj {

gpio-controller;

#gpio-cells = <2>;

};

/\*

\* Pin groups

\*/

uart0\_data: uart0-data {

samsung,pins = "gph-0", "gph-1";

samsung,pin-function = <2>;

};

i2c0\_bus: i2c0-bus {

samsung,pins = "gpe-14", "gpe-15";

samsung,pin-function = <EXYNOS\_PIN\_FUNC\_2>;

};

nand\_pinctrl: nand\_pinctrl {

samsung,pins = "gpa-17", "gpa-18", "gpa-19",

"gpa-20", "gpa-22";

samsung,pin-function = <1>;

};

};

### 1.2 2440 pinctrl子系统初始化

samsung,s3c2440-pinctrl的注册代码如下：

static const struct of\_device\_id samsung\_pinctrl\_dt\_match**[]** **=** **{**

**{** **.**compatible **=** "samsung,s3c2440-pinctrl"**,**

**.**data **=** s3c2440\_pin\_ctrl **},**

**};**

static struct platform\_driver samsung\_pinctrl\_driver **=** **{**

**.**probe **=** samsung\_pinctrl\_probe**,**

**.**driver **=** **{**

**.**name **=** "samsung-pinctrl"**,**

**.**of\_match\_table **=** samsung\_pinctrl\_dt\_match**,**

**.**suppress\_bind\_attrs **=** **true,**

**},**

**};**

static int \_\_init samsung\_pinctrl\_drv\_register**(**void**)**

**{**

register\_syscore\_ops**(&**samsung\_pinctrl\_syscore\_ops**);**

**return** platform\_driver\_register**(&**samsung\_pinctrl\_driver**);**

**}**

匹配后samsung\_pinctrl\_probe函数调用。