

Specifying GPIO information for devices

1) gpios property

Nodes that makes use of GPIOs should define them using `gpios` property, format of which is: `<&gpio-controller1-phandle gpio1-specifier
&gpio-controller2-phandle gpio2-specifier
0 /* holes are permitted, means no GPIO 3 */
&gpio-controller4-phandle gpio4-specifier
...>;`

Note that gpio-specifier length is controller dependent.

gpio-specifier may encode: bank, pin position inside the bank, whether pin is open-drain and whether pin is logically inverted.

Example of the node using GPIOs:

```
node {
    gpios = <&qe_pio_e 18 0>;
};
```

In this example gpio-specifier is "18 0" and encodes GPIO pin number, and empty GPIO flags as accepted by the "qe_pio_e" gpio-controller.

2) gpio-controller nodes

Every GPIO controller node must have #gpio-cells property defined, this information will be used to translate gpio-specifiers.

Example of two SOC GPIO banks defined as gpio-controller nodes:

```
qe_pio_a: gpio-controller@1400 {
    #gpio-cells = <2>;
    compatible = "fsl,qe-pario-bank-a", "fsl,qe-pario-bank";
    reg = <0x1400 0x18>;
    gpio-controller;
};

qe_pio_e: gpio-controller@1460 {
    #gpio-cells = <2>;
    compatible = "fsl,qe-pario-bank-e", "fsl,qe-pario-bank";
    reg = <0x1460 0x18>;
    gpio-controller;
};
```