NAME

OF_node_from_xref, **OF_xref_from_node** - convert between kernel phandle and effective phandle

SYNOPSIS

#include <dev/ofw/ofw_bus.h>
#include <dev/ofw/ofw_bus_subr.h>

phandle_t
OF_node_from_xref(*phandle_t xref*);

phandle_t
OF_xref_from_node(*phandle_t node*);

DESCRIPTION

Some OpenFirmware implementations (FDT, IBM) have a concept of effective phandle or xrefs. They are used to cross-reference device tree nodes. For instance, a framebuffer controller may refer to a GPIO controller and pin that controls the backlight. In this example, the GPIO node would have a cell (32-bit integer) property with a reserved name like "phandle" or "linux,phandle" whose value uniquely identifies the node. The actual name depends on the implementation. The framebuffer node would have a property with the name described by device bindings (device-specific set of properties). It can be a cell property or a combined property with one part of it being a cell. The value of the framebuffer node's property would be the same as the value of the GPIO "phandle" property so it can be said that the framebuffer node refers to the GPIO node. The kernel uses internal logic to assign unique identifiers to the device tree nodes, and these values do not match the values of "phandle" properties.
OF_node_from_xref() and **OF_xref_from_node**() are used to perform conversion between these two kinds of node identifiers.

OF_node_from_xref() returns the kernel phandle for the effective phandle *xref*. If one cannot be found or the OpenFirmware implementation does not support effective phandles, the function returns the input value.

OF_xref_from_xref() returns the effective phandle for the kernel phandle *xref*. If one cannot be found or the OpenFirmware implementation does not support effective phandles, the function returns the input value.

EXAMPLES

```
phandle_t panelnode, panelxref;
char *model;

if (OF_getencprop(node, "lcd-panel", &panelxref) <= 0)
```

```
        return;

    panelnode = OF_node_from_xref(panelxref);
    if (OF_getprop_alloc(hdminode, "model", (void **)&model) <= 0)
        return;
```

SEE ALSO

OF_device_from_xref(9), OF_device_register_xref(9)

AUTHORS

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