NAME

device.cfinfo – devconfig configuration files

SYNOPSIS

device.cfinfo

AVAILABILITY

x86

DESCRIPTION

device.cfinfo files pass information about device configuration to the **devconfig**(1M) program. They allow **devconfig**(1M) to provide the user with valid ranges for device attributes.

devconfig(1M) associates a device with its **cfinfo** file by name. For example, the device **logi** for the Logitec Bus Mouse has the **devconfig**(1M) configuration file **logi.cfinfo** associated with it in the **DEVCONFIGHOME** directory. **DEVCONFIGHOME is /usr/lib/devconfig** by default and may be set in the user's environment.

Below is a yaccish grammar of a **cfinfo** file:

```
cfinfo_file:       cfinfo_devspec EOF
                   ;

cfinfo_devspec:    cfinfo_spec_list SEMICOLON
                   ;

cfinfo_spec_list:  cfinfo_spec |
                   cfinfo_spec_list cfinfo_spec
                   ;

cfinfo_spec:       comment |
                   attr_value_pair NEWLINE
                   ;

comment:           POUNDSIGN |
                   POUNDSIGN STRING
                   ;

attr_value_pair:   ATTR_NAME EQUALS STRING |
                   ATTR_OWNAME EQUALS STRING
                   ATTR_TITLE EQUALS STRING |
                   ATTR_CATEGORY EQUALS STRING |
                   ATTR_INSTANCE EQUALS STRING |
                   ATTR_CLASS EQUALS STRING |
                   ATTR_TYPE EQUALS STRING |
                   ATTR_REAL EQUALS STRING |
                   ATTR_AUTO EQUALS STRING |
                   NAME EQUALS value_spec_string
                   ;
```

```
value_spec_string:   QUOTE value_spec QUOTE
                     ;

value_spec:          value_type COMMA value_list
                     ;

value_type:          | /* EMPTY */
                     TYPE_NUMERIC |
                     TYPE_STRING |
                     TYPE_VAR
                     ;

value_list:          integer_value_list |
                     string_value_list
                     ;

integer_value_list:  INTEGER |
                     INTEGER COLON INTEGER |
                     INTEGER COMMA integer_value_list
                     ;

string_value_list:   STRING |
                     STRING COMMA string_value_list
                     ;
ATTR_NAME            name           # device name specified in driver.conf
ATTR_CLASS           class          # device class specified in driver.conf
ATTR_TYPE            type           # device type specified in OWconfig
ATTR_OWNAME          __owname__     # device name specified in OWconfig
ATTR_TITLE           __title__      # device title displayed by devconfig
ATTR_CATEGORY        __category__   # device category
ATTR_INSTANCE        __instance__   # device unit
ATTR_REAL            __real__       # attributes to write to driver.conf
ATTR_AUTO            __auto__       # self-identifying device attribute
TYPE_NUMERIC         numeric        # precedes an integer value list
TYPE_STRING          string         # precedes a string values list
TYPE_VAR             var            # precedes a variable specification
```

The first value in a **value_list** is the default value picked by **devconfig**(1M) for the attribute. An attribute name of the form __*name*__ is used internally by **devconfig**(1M). Number ranges are specified as *n1:n2*. An internal attribute of the type *var* specifies a configurable portion of a real attribute. (See examples below.) Certain internal attributes have an expanded form when displayed. These attributes are listed in the file **abbreviations** in **DEVCONFIGHOME**. The file abbreviations also includes a list of name mappings for certain category names. If the __*real*__ attribute is present, only the attribute names it specifies are written to a driver.conf file. Otherwise all non-internal attributes are written.

EXAMPLES

Here is the device configuration file **logi.cfinfo** for the LOGITECH bus mouse. The driver configuration file for this device is called **logi.conf**.

```
name="logi"
        __owname__="pointer:0"
        __title__="Logitec bus mouse"

        __category__="pointer"

        class="sysbus"
        type="LOGI-B"
        buttons="var,__nbuttons__"
        __nbuttons__="numeric,2:3"
        dev="/dev/logi"

        intr="numeric,1","var,__irq__"
        __irq__="numeric,2:5"

        __real__="name","class","intr"
        ;
```

The driver name for the LOGITECH Bus Mouse is **logi**. The device name in **OWconfig** (see the *OpenWindows Desktop Reference Manual*) is **pointer:0**. The device category is **pointer**; the device category is displayed as **pointing devices** however since there is a category mapping for **pointer** in the abbreviations file. The device class is **sysbus** as specified in the file /kernel/drv/classes. A device of class **owin** does not have a device driver associated with it. The device IPL is 1. The device IRQ is substituted by the variable **__irq__** and has a range of 2 to 5. A name mapping for **__irq__** exists in abbreviations and so **__irq__** is displayed as **Interrupt (IRQ):**. The device attributes written to logi.conf are **name**, **class** and **intr** as specified by the **__real__**" entry.

The resulting entry in **logi.conf** is:

```
name="logi" class="sysbus" intr=1,2;
```

The resulting entry in OWconfig is:

```
type="LOGI-B" buttons=3 dev="/dev/logi" class="owin" name="pointer:0";
```

Here is an example of a self-identifying device.

```
name="lp"
        __title__="Parallel printer port"
        __category__="lp"

        class="sysbus"

        __auto__="string,true"
        ;
```

The driver for the parallel port automatically identifies it, and **devconfig**(1M) treats this device as self-identifying.

FILES

abbreviations

SEE ALSO

devconfig(1M), **driver.conf**(4),
OpenWindows Desktop Reference Manual