Decoding an IOCTL Magic Number

To decode a hex IOCTL code:

Most architectures use this generic format, but check include/ARCH/ioctl.h for specifics, e.g. powerpc uses 3 bits to encode read/write and 13 bits for size.

bits	**meaning**
31-30	00 - no parameters: uses _IO macro 10 - read: _IOR 01 - write: _IOW 11 - read/write: _IOWR
29-16	size of arguments
15-8	ascii character supposedly unique to each driver
7-0	function #

So for example 0x82187201 is a read with arg length of 0x218, character 'r' function 1. Grepping the source reveals this is:

```
#define VFAT_IOCTL_READDIR_BOTH         _IOR('r', 1, struct dirent [2])
```