NAME

ddi_rep_getb, ddi_rep_getw, ddi_rep_getl, ddi_rep_getll – read data from the mapped memory address, device register or allocated DMA memory address

SYNOPSIS

```
#include <sys/ddi.h>
#include <sys/sunddi.h>

void ddi_rep_getb(ddi_acc_handle_t handle, uchar_t *host_addr, uchar_t *dev_addr,
        uint_t repcount, ulong_t flags);

void ddi_rep_getw(ddi_acc_handle_t handle, ushort_t *host_addr, ushort_t *dev_addr,
        uint_t repcount, ulong_t flags);

void ddi_rep_getl(ddi_acc_handle_t handle, ulong_t *host_addr, ulong_t *dev_addr,
        uint_t repcount, ulong_t flags);

void ddi_rep_getll(ddi_acc_handle_t handle, unsigned long long *host_addr,
        unsigned long long *dev_addr, uint_t repcount, ulong_t flags);
```

INTERFACE LEVEL

Solaris DDI specific (Solaris DDI).

ARGUMENTS

handle The data access handle returned from setup calls, such as **ddi_regs_map_setup**(9F).

host_addr Base host address.

dev_addr Base device address.

repcount Number of data accesses to perform.

flags Device address flags:

DDI_DEV_AUTOINCR
Automatically increment the device address, *dev_addr*, during data accesses.

DDI_DEV_NO_AUTOINCR
Do not advance the device address, *dev_addr*, during data accesses.

DESCRIPTION

These routines generate multiple reads from the mapped memory or device register. *repcount* data is copied from the device address, *dev_addr*, to the host address, *host_addr*. For each input datum, the **ddi_rep_getb()**, **ddi_rep_getw()**, **ddi_rep_getl()**, and **ddi_rep_getll()** functions read 8 bits, 16 bits, 32 bits and 64 bits of data, respectively, from the device address, *dev_addr*. *dev_addr* and *host_addr* must be aligned to the datum boundary described by the function.

Each individual datum will automatically be translated to maintain a consistent view between the host and the device based on the encoded information in the data access handle. The translation may involve byte-swapping if the host and the device have incompatible endian characteristics.

When the *flags* argument is set to **DDI_DEV_AUTOINCR**, these functions treat the device address, *dev_addr*, as a memory buffer location on the device and increment its address on the next input datum. However, when the *flags* argument is to **DDI_DEV_NO_AUTOINCR**, the same device address will be used for every datum access. For example, this flag may be useful when reading from a data register.

RETURN VALUES

These functions return the value read from the mapped address.

CONTEXT

These functions can be called from user, kernel, or interrupt context.

SEE ALSO

ddi_getb(9F), **ddi_putb**(9F), **ddi_rep_putb**(9F), **ddi_regs_map_setup**(9F), **ddi_regs_map_free**(9F)