**MRAPI API Specification V0.9.3**

**4.8.21 MRAPI\_ATOMIC\_CHANGE (ABB Extension)**

**NAME**

mrapi\_atomic\_change

**SYNOPSIS**

void mrapi\_atomic\_change(

MRAPI\_OUT void\* sync, MRAPI\_IN void\* dest, MRAPI\_IN int bit, MRAPI\_OUT int\* previous, MRAPI\_IN size\_t size, MRAPI\_OUT mrapi\_status\_t\* status

);

**DESCRIPTION**

mrapi\_atomic\_change()performs atomic bit change within an integer. Atomic bit set is provided by mrapi\_atomic\_set(), and atomic bit clear is provided by mrapi\_atomic\_clear(). The operation is only valid for memory locations within shared memory, where the synchronization can be across real-time processes. The integer value at destination address is modified to flip the specified bit, indexed from 0, to be it complement and the previous bit value returned if that argument is non-NULL. Different integer widths are supported based on the platform. The desired integer size is passed as input and returned status indicates if the operation succeeded.

**RETURN VALUE**

None.

**ERRORS**

|  |  |
| --- | --- |
| MRAPI\_ERR\_NODE\_NOTINIT | The calling node is not initialized |
| MRAPI\_ERR\_ATOM\_OP\_FAILED | The local atomic operation failed |
|  |  |

**NOTE**

Supported integer types:

Windows – uint32\_t

Unix - uint32\_t

**SEE ALSO**