**MRAPI API Specification V0.9.3**

**4.8.6 MRAPI\_ATOMIC\_ADD (ABB Extension)**

**NAME**

mrapi\_atomic\_add

**SYNOPSIS**

void mrapi\_atomic\_add(

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

);

**DESCRIPTION**

mrapi\_atomic\_add()performs atomic integer addition. With a negative addend value, subtraction is also possible. 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 incremented by the specified integer value and the previous integer

value returned if that argument is non-NULL. Different integer widths are supported based on the platform. The desired 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, uint64\_t

Unix - uint8\_t, uint16\_t, uint32\_t, uint64\_t

**SEE ALSO**