

4.8.12 MRAPI_ATOMIC_CAS (ABB Extension)

NAME

`mrapi_atomic_cas`

SYNOPSIS

```
void mrapi_atomic_cas(
    MRAPI_OUT void* sync, MRAPI_IN void* dest,
    MRAPI_IN void* exchange, MRAPI_IN void*
    compare, MRAPI_OUT void* previous, MRAPI_IN
    size_t size, MRAPI_OUT mrapi_status_t* status
);
```

DESCRIPTION

`mrapi_atomic_cas()` performs atomic integer compare and swap. Atomic pointer compare and swap is provided by `mrapi_atomic_cas_ptr()`. 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 compared with `compare`, and if they match then replaced with `exchange`. The `previous` value is 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

<code>MRAPI_ERR_NODE_NOTINIT</code>	The calling node is not initialized
<code>MRAPI_ERR_ATOM_OP_FAILED</code>	The local atomic operation failed

NOTE

Supported integer types:

Windows – `uint8_t`, `uint16_t`, `uint32_t`, `uint64_t`
Unix - `uint8_t`, `uint16_t`, `uint32_t`, `uint64_t`

SEE ALSO