4.3.2.1 MRAPI_SEM_CREATE

NAME

mrapi_sem_create

SYNOPSIS

```
mrapi_sem_hndl_t mrapi_sem_create(
  MRAPI_IN mrapi_sem_id_t sem_id,
  MRAPI_IN mrapi_sem_attributes_t* attributes,
  MRAPI_IN mrapi_uint_t shared_lock_limit,
  MRAPI_OUT mrapi_status_t* status
);
```

DESCRIPTION

This function creates a semaphore. Unless you want the defaults, attributes must be set before the call to `mrapi_sem_create()`. Once a semaphore has been created, its attributes may not be changed. If the attributes are NULL, then implementation defined default attributes will be used. If `sem_id` is set to `MRAPI_SEM_ID_ANY`, then MRAPI will choose an internal id for you. The `shared_lock_limit` parameter indicates the maximum number of available locks and it must be between 0 and MRAPI_MAX_SEM_SHAREDLOCKS.

RETURN VALUE

On success a semaphore handle is returned and `*status` is set to `MRAPI_SUCCESS`. On error, `*status` is set to the appropriate error defined below. In the case where the semaphore already exists, status will be set to `MRAPI_EXISTS` and the handle returned will not be a valid handle.

ERRORS

`MRAPI_ERR_SEM_ID_INVALID`	The `semaphore_id` is not a valid semaphore id.
`MRAPI_ERR_SEM_EXISTS`	This semaphore is already created.
`MRAPI_ERR_SEM_LIMIT`	Exceeded maximum number of semaphores allowed.
`MRAPI_ERR_SEM_LOCKLIMIT`	The shared lock limit is out of bounds.
`MRAPI_ERR_NODE_NOTINIT`	The calling node is not initialized.
`MRAPI_ERR_PARAMETER`	Invalid attributes parameter.

NOTE

SEE ALSO

See `mrapi_sem_init_attributes()` and `mrapi_sem_set_attribute()`.

See also datatypes identifiers discussion: 3.12.13