

# Testing!

Comprehensively testing error conditions is important!

```
if( PQ_ERROR_INVALID_QUEUE != pqueueEnqueue(NULL, NULL, 0) )
```

Testing correct functionality is also important!

```
Q_DATATYPE data;

for(i=0; i < MAX; i++)
{
    data.intValue = i;
    pqueueEnqueue(&sTheQueue, &data, i); // check error code
}

for(i=0; i < MAX; i++)
{
    pqueueDequeue(&sTheQueue, &data, &priority); // check error code
    if ( data.intValue != i )
    {
        // error data is incorrect!
    }
    if ( priority != i )
    {
        // error priority is incorrect!
    }
}

// do the above again and call pqueueChangePriority()
// between the loops!

// do the above again and insert priorities in reverse order
// pqueueEnqueue(&sTheQueue, &data, MAX - i);
```