

Capítulo 1

Task 02: Test Paging Activation

1.1 Objective

The goal of this task is to verify that paging is active by attempting to access unmapped memory. This will help confirm that the paging mechanism is functioning as expected.

1.2 Implementation Plan

1. Declare a global variable to serve as a reference for mapped memory.
2. Create a pointer that points to an address 4MB beyond the global variable. This address should not be mapped since only the first 4MB are initialized.
3. Attempt to read from the unmapped pointer and observe the behavior.
4. Temporarily disable paging by modifying the control register (`cr0`).
5. Repeat the read operation with paging disabled.
6. Document the results for both cases (paging enabled and disabled).

1.3 Expected Outcome

- With paging enabled:
 - Accessing the unmapped pointer should trigger a page fault.
- With paging disabled:
 - The read operation should succeed, as the memory address will be treated as a physical address.

1.4 Results

(To be filled after implementation)

1.5 Challenges

(To be filled after implementation)

1.6 Conclusion

(To be filled after implementation)