Polling example using z64 processor

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1 Project

1.1 Requirements

Four devices P1, P2, P3, P4 produce word-sized data as input to the z64 processor. Write the code for a subroutine laws that we accept as parameters (according to the *System V ABI*) the number of data (bytes) to read from the peripherals and the address of memory from which the z64 processor will have to start writing data thus acquired. Also write the program that calls the function read asking to acquire 100 words from the equipment and to store them in a vector starting from address 0x1200.

ATTENTION: 100 data can not necessarily be read respecting the order of the peripherals (for example 10 from P1, 23 from P2, etc.)

1.2 Implementation

1.2.1 Hardware

The P1, P2, P3, P4 peripherals are represented as a classic input devices:
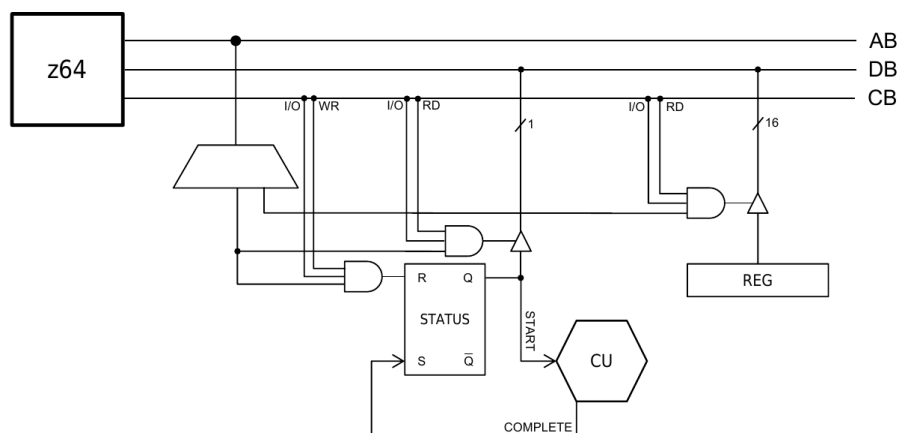
Figure 1. The P1, P2, P3, P4 peripherals

1.2.2 Firmware

So, a possible *firmware implementation* can be found here.