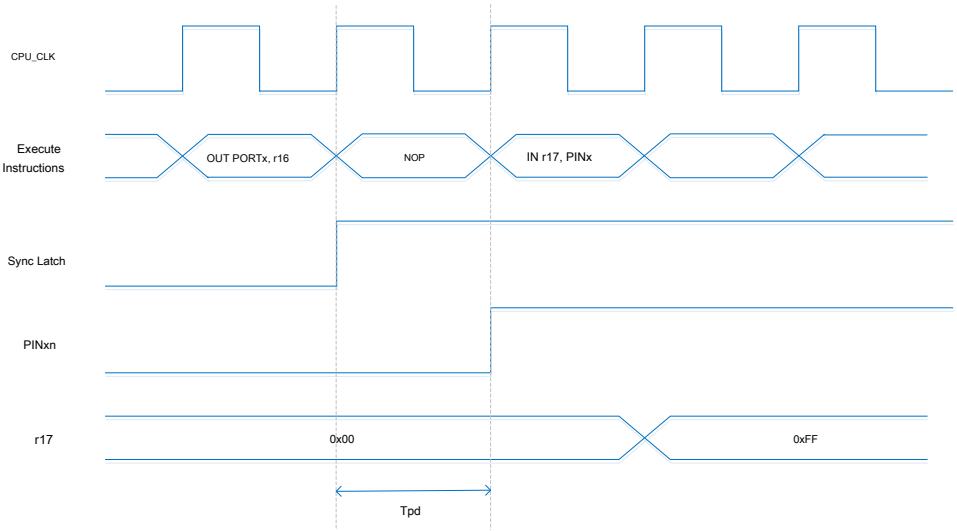
Memory, and the next rising edge of the clock to register PINxn register. The image above Tpd, max as well as Tpd, min

The maximum and minimum delay data ports, is divided into 1.5 Cycle and 0.5 cycle.

If you want to read the port value software settings, it is necessary I / O Write and read byte support a dummy operation instruction (NOP) . The timing is shown below:



The following code shows how to set port B Pin 0/1 High, 2/3 Low, defined Pin 4-7 And enable input pin 6 , 7 The pull-up resistor. Value is then read back pin general purpose working register, as previously described, the output and input pins directly inserted a NOP instruction.

Assembly code

```
; Define Pull-ups and set outputs high; Define
directions for port pins
LDI r16, (1 << PB7) | (1 << PB6) | (1 << PB1) | 1 << PB0)
LDI r17, (1 << DDB3) | (1 << DDB2) | (1 << DDB1) | (1 << DDB0)
OUT PORTB, r16
OUT DDRB, r17
; Insert nop for synchronization
NOP
; Read port pins
IN r16, PINB
```

C Language code

```
unsigned char I;
/ * Define pull-ups and set outputs high * / / * Define
directions for port pins * /
PORTB = (1 << PB7) | (1 << PB6) | (1 << PB1) | (1 << PB0); DDRB = (1 << DDB3) |
(1 << DDB2) | (1 << DDB1) | (1 << DDB0);
/ * Insert nop for synchronization * /
__no_operation ();
/ * Read port pins * /
I = PINB;
```