On positive edge of the clock:

|  |  |  |
| --- | --- | --- |
| Load | Input (D) | Output (Q) |
| 0 | D(0) | U |
| 1 | D(0) | D(0) |
| 0 | D(1) | D(0) |
| 1 | D(1) | D(1) |

In the 32 bit register, the input D is a 32 bit value which is only written into the register when the load signal is positive.