
Toggle

X15508_en

A toggle is a 1-output circuit that changes state at every cycle. Design a toggle circuit that starts with the output being 0 and generates an alternating sequence of 1's and 0's, i.e., 010101010101...

Specification

```
module toggle (t, clk, rst);
  input clk, rst;
  output t;
```

Input

- *clk* is the clock signal.
- *rst* is the synchronous reset signal.

Output

- *t* is the output that toggles at every cycle.

Problem information

Author: Jordi Cortadella

Generation: 2026-02-03T12:23:46.749Z

© Jutge.org, 2006–2026.
<https://jutge.org>