

JAVA EXAMPLES - MONITORING A THREAD

http://www.tutorialspoint.com/javaexamples/thread_monitor.htm

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Problem Description:

How to monitor a thread's status?

Solution:

Following example demonstrates how to monitor a thread's status by extending Thread class and using `currentThread.getName` method.

```
class MyThread extends Thread{
    boolean waiting= true;
    boolean ready= false;
    MyThread() {
    }
    public void run() {
        String thrdName = Thread.currentThread().getName();
        System.out.println(thrdName + " starting.");
        while(waiting)
            System.out.println("waiting:"+waiting);
        System.out.println("waiting...");
        startWait();
        try {
            Thread.sleep(1000);
        }
        catch(Exception exc) {
            System.out.println(thrdName + " interrupted.");
        }
        System.out.println(thrdName + " terminating.");
    }
    synchronized void startWait() {
        try {
            while(!ready) wait();
        }
        catch(InterruptedException exc) {
            System.out.println("wait() interrupted");
        }
    }
    synchronized void notice() {
        ready = true;
        notify();
    }
}

public class Main {
    public static void main(String args[])
        throws Exception{
        MyThread thrd = new MyThread();
        thrd.setName("MyThread #1");
        showThreadStatus(thrd);
        thrd.start();
        Thread.sleep(50);
        showThreadStatus(thrd);
        thrd.waiting = false;
        Thread.sleep(50);
        showThreadStatus(thrd);
        thrd.notice();
        Thread.sleep(50);
        showThreadStatus(thrd);
        while(thrd.isAlive())
            System.out.println("alive");
        showThreadStatus(thrd);
    }
    static void showThreadStatus(Thread thrd) {
        System.out.println(thrd.getName()+"
```

```
    Alive:="+thrd.isAlive()+"  
    State:=" + thrd.getState() );  
  }  
}
```

Result:

The above code sample will produce the following result.

```
main Alive=true State:=running  
Loading [MathJax]/jax/output/HTML-CSS/jax.js
```