

How can I determine how responsive my application is to input?

 devblogs.microsoft.com/oldnewthing/20130927-00

September 27, 2013



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A customer was adding diagnostics to their application and wanted to know if there was a way to detect that the application was being slow in processing its input. These sorts of delays manifest themselves to the end user as a sluggish application which is slow to respond to input events. They already had a watchdog timer that was reset every time their `Get-Message` call returned a message, so they could capture stack traces if their application stopped processing messages for more than X milliseconds. They wanted to extend this diagnostic information to input delays. Fortunately, there's an easy way to tell. The `Get-MessageTime` will tell you the time the message was added to the queue, so by subtracting that time from the current `GetTickCount`, you can determine how long the input message sat in the queue. (Sent messages are not queued messages, so calling `GetMessageTime` for a sent message doesn't work.) There's a catch, here, though.

Since mouse messages are generated on demand, the `GetMessageTime` for a `WM_MOUSEMOVE` message is usually "Just now." (It could be older if you forced a mouse move message to be generated but left it in the queue.) To get the actual time the mouse moved, you need to use `GetMouseMovePointsEx`.

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