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Subject: Wave plotting app misbehaves when "standard input" is not a terminal  
Posted by [cchiesa1](#) on Wed, 19 May 2004 19:05:40 GMT

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I have an extremely trivial Wave procedure named "scrollGraph" (attached below).

When I invoke Wave interactively at a command prompt (this is on Solaris 8) and type the commands to load-and-run "scrollGraph," it accepts numeric values from the keyboard, one at a time, and for each, draws a nice complete graph with horizontal and vertical axes, tick marks, and of course a 2D trace of the last 'xnumPts' values entered.

When I invoke Wave as a child process from a parent program (in this case a Perl/Tk script) and feed it the same commands-and-data through a pipe, scrollGraph seems to start up okay, but Wave in general seems to go slightly insane. The Wave output window appears, but it flickers-and-flutters as various PARTS of the graph -- axes, tickmarks -- VER-R-R-R-RRRRRY SLO-W-W-W-WW-LY accumulate in the window. (Just when you think it has finally gotten around to where it's about to graph the actual data, the window clears and the whole show starts over.)

A similar program that omits READ and just graphs a static dataset, once, has no such problems, so I conclude that READ is the culprit here. Specifically, it looks like Wave is going crazy trying to draw-and-redraw the graph over and over again at a very high repeat rate, "just" because READ is connected to a pipe, rather than a terminal, as "standard input."

I have not been able to find any mention of such behavior in any of the Wave documentation, anywhere on VNI's website, or in this newsgroup; has anybody else ever seen this, know what causes it, know how to fix/avoid it? "scrollGraph" is just a simple prototype; in the end I need to be able to feed "simple" commands to a Wave script that generates complex graphs on behalf of another program. I'm uncomfortable with this bad sign so early on... Much appreciation awaits anyone who can shed some light on this matter! :-)

Thanks in advance,

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;----- example Wave procedure -----

pro scrollGraph,xnumPts,yscale

```
x=intarr(xnumPts)

plot,x,yrange=[0,yscale]

ans=0
while ans ne -1 do begin
    read,ans
    if ans ne -1 then begin
        y=x
        x(1:xnumPts-1) = y(0:xnumPts-2)
        x(0) = ans
        plot,x,yrange=[0,yscale]
    endif
endwhile

end
```

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