Subject: Re: Linux Question
Posted by Paolo Grigis on Thu, 17 Feb 2005 09:56:47 GMT
View Forum Message <> Reply to Message

Paolo Grigis wrote:
>
> Marshall Perrin wrote:
>
>> David Fanning <davidf@dfanning.com> wrote:
>>
>>> I am always amazed with what people put up with,
>>> but this was really an eye-opening experience.
>>> I recommend *anyone* who writes software for a living go spend a
>>> couple of months with the end-users.
>>> You will never be the same. :-)
>>
>>
>>
>> I feel that someone needs to stand up here and offer a valiant defense
>> of the astrophysics community, but I fear it's too late and we've
>> all already been irrevocably branded as hopeless luddites. :-)
>
>
> Thanks Marshall!
>
>>
>> I think part of the problem is that IDL ships with poor default settings
>> in many cases. It can be configured to do the right thing, if you know
>> how to tweak your .idlstartup file to add some DECOMPOSED and RETAIN
>> keywords, etc, but you shouldn't have to do that to get reasonable
>> functionality! I think many astronomers come to IDL with previous
>> experience
>> with things like Matlab or Mathematica, where you *don't* need to do
>> that sort of tweaking. Window repaints work correctly in Mathematica
>> right away! So when faced with IDL windows that get permanently
>> damaged as soon as something passes in front of them, why isn't it
>> reasonable to assume that's "just how IDL is"?
>
>
> Just to *reiterate* it: let's say you've just started you're PhD thesis,
> you sit in front of you're shiny new linux box, and just spend a couple
> of days and nights learning IDL. You don't feel like a newbye anymore,
> and you think you're ready for your first big project:
> a nice colored movie of your favorite supernova exploding.
> You have made a nice plan in your head on how the animation will
> look like and you think you might be optioned for the next academy
> award.
>

> Proud, you start coding and displaying your frames... just to find out
> your animation looks like it was done in the thirties: desperately black
> and white. You think: IDL cannot be so backwards, can't it? Suddenly you
> also find out that when you put your mouse cursor over the plot windows,
> colors magically show up, making your plot so nice and screwing
> everything else up, but who cares if you're nice background image of M81
> by Hubble now looks like an old X-ray false color image...
> So you gear your hope up, but still find the limitation of having to
> keep your mouse on the windows a little harsh. Brilliant idea: check
> up the documentation. You type "? colour" at the command line and
> a fine message windows tells you: the topic "COLOUR" does not exist.
> Fine, you remember RSI HQ being based in colorado and not in colourado,
> so you try again "? colour", but that doesn't work either. So what?
Of course, the second time that was meant to read: "? color"

>
> Slowly finding you're way through the 10000+ pages of documentation,
> you discover on page 3856 of the appendices the section that you should
> have read first: "The X Windows Device". You read the chapter carefully
> twice, and you summ up your findings: out there exist direct color, true
> color, pseudo color, static color, gray scale, static gray. The last 2
> don't interest you, since you have already managed B&W, sort of.
> So which one should you pick? You learn they come in different flavours,
> 8 bit, 16 bit, 24 bit. Also there is a mention of colormaps: they come
> as shared, private, static (but you find no mention of dynamics ones,
> pity, as an astrophysicists you have been trained to think that
> hydrodynamics is superior to hydrostatics). So, now, which one will
> work for you? Of course the guide does not help you in *that* matter,
> so you choose to apply the "scientific method": try out all the
> possible combination until you find the one that suits you
> (but still you're not really sure why that particular
> combination works and the others failed...).
>
> I am sure that the above picture is not too far from the actual
> experience of at least some people, and maybe even a few
> "computer-wise" ones.
>
> Ciao,
> Paolo
>
>>
>> That's not to say I disagree completely with the tone of this thread.
>> There *are* a lot of people who don't understand computing nearly as
>> well as perhaps they should; I'd love to see more computer emphasis
>> added to the undergraduate physics curriculum, but the invariable
>> faculty response is "but there's already too much material; what
>> courses should we drop if we add a computer requirement or two?"
>> Still, I think it needs to happen sooner or later. But I see a

>> distinction between fundamental issues of numerical data analysis
>> (e.g. representation of floating-point numbers, error propagation,
>> algorithms, and so on) versus details specific to some individual
>> piece of software (setting RETAIN=2 or knowing how to convert between
>> DATA and NORMALIZED coordinates, or whatever). One should strive to
>> minimize how much of the latter one needs to know, so that you can
>> concentrate on the former! In my opinion, something like imdisp or
>> tvimage should become *standard* with IDL: too many people out there
>> end up learning "tv" first and then getting stuck rolling their own
>> more useful display codes from scratch, and that's a waste...
>>
>> On a regular basis, I program in IDL, C/C++, Perl, Tcl/Tk, various
>> shells, and Motorola DSP assembler (and occasionally I end up in
>> Python or Fortran too). That menagerie of languages is my problem, not
>> yours, but I hope you don't fault me for wanting to get the most
>> science done in IDL as possible with the minimum amount of screwing
>> around with configuration parameters or learning language esoterica!
>> (Same reason why I, and nearly every other astronomer I know, have
>> switched to Macs as much as possible: minimal need to screw around for
>> hours just to get things working!)
>>
>> I'll go crawl back in my hole with the other end-users for a while
>> now and be quiet again. :-)
>>
>>
>> - Marshall
>>
