
Subject: Re: Linux Question

Posted by [Michael Wallace](#) on Wed, 16 Feb 2005 18:27:48 GMT

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- > I have to break down and install Linux so I can sort out some
- > X Windows problems with my IDL widgets. Which flavor is the easiest
- > to install for the, uh, less technically astute members of
- > our esteemed organization? :-)

Actually, most of the major distributions are pretty painless. I know, I know -- I'm biased since I've been using Linux for ~8 years, so it should seem pretty easy for me. For the newbies, I recommend SuSE. SuSE is just a good overall distribution for the newbs and us veterans.

-Mike

Subject: Re: Linux Question

Posted by [James Kuyper](#) on Wed, 16 Feb 2005 18:31:10 GMT

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David Fanning wrote:

- > Ok, you Linux guys,
- >
- > I have to break down and install Linux so I can sort out some
- > X Windows problems with my IDL widgets. Which flavor is the easiest
- > to install for the, uh, less technically astute members of
- > our esteemed organization? :-)
- >
- > Cheers,
- >
- > David
- >
- > P.S. I'll probably put it on an old DELL laptop I have
- > around here and have been using as a doorstep.

I can't provide you with any comparisons; all of my installation experience has been with RedHat Linux. However, I thought I should give you a warning. I'm a very technically astute person, and very much a Linux supporter, and the software is pretty easy to install, but I still have lots of problems with hardware configuration. Linux is going to remain a minority operating system until they make hardware configuration a lot easier.

Subject: Re: Linux Question

Posted by [David Fanning](#) on Wed, 16 Feb 2005 18:44:09 GMT

James Kuyper writes:

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> you a warning. I'm a very technically astute person, and very much a
> Linux supporter, and the software is pretty easy to install, but I still
> have lots of problems with hardware configuration. Linux is going to
> remain a minority operating system until they make hardware
> configuration a lot easier.

No, I don't need any warnings. I **know** this. :-)

I also know that 75% of the IDL users who run Linux have their machines configured so that there is no hope they will ever understand the first thing about color in IDL, but that's another story, and one I hope to address if I ever get the damn OS installed. :-(

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: Linux Question

Posted by [KM](#) on Wed, 16 Feb 2005 19:07:37 GMT

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On Wed, 16 Feb 2005, David Fanning wrote:

> Which flavor is the easiest to install for the, uh, less
> technically astute members of our esteemed organization? :-)
I've used RedHat, Gentoo, Debian, and Knoppix.

Knoppix is the easiest and best at hardware detection in my experience. It is simply amazing what a Live CD can do. But I never did a full install, I just booted off the Live CD. I think there is a simple point-and-click option to move from a CD boot to a hard-disk boot.

A fun trick is to take your Knoppix CD to a friends house and reboot their computer to Linux when they are not looking. Then, say "Oops... Did you need that othe OS?".

Of the other 3 I have done numerous full installs, and I vote for Debian.

> P.S. I'll probably put it on an old DELL laptop I have around here
> and have been using as a doorstop.

Thats what I use. No, not a Dell, a doorstop. It has been so beat up that it doesn't even have a screen anymore:

<http://spacebit.dyndns.org/twiki/bin/view/Main/AboutThisSite>

-k.

Subject: Re: Linux Question

Posted by [Benjamin Hornberger](#) on Wed, 16 Feb 2005 19:37:42 GMT

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James Kuyper wrote:

>

> I can't provide you with any comparisons; all of my installation
> experience has been with RedHat Linux. However, I thought I should give
> you a warning. I'm a very technically astute person, and very much a
> Linux supporter, and the software is pretty easy to install, but I still
> have lots of problems with hardware configuration. Linux is going to
> remain a minority operating system until they make hardware
> configuration a lot easier.

I think in hardware configuration SUSE is better than Red Hat. By the way, by "they" you hopefully mean the hardware manufacturers. If they provided Linux drivers as they do provide Windows drivers, there would hardly be any problem...

I can absolutely recommend SUSE for the newbie, even though there's no guarantee for a flawless install.

Benjamin

Subject: Re: Linux Question

Posted by [Chad Bender](#) on Wed, 16 Feb 2005 19:43:41 GMT

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Subject: Re: Linux Question

Posted by [James Kuyper](#) on Wed, 16 Feb 2005 20:00:45 GMT

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Benjamin Hornberger wrote:

> James Kuyper wrote:

>

>>

>> I can't provide you with any comparisons; all of my installation
>> experience has been with RedHat Linux. However, I thought I should
>> give you a warning. I'm a very technically astute person, and very
>> much a Linux supporter, and the software is pretty easy to install,
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>

>

> I think in hardware configuration SUSE is better than Red Hat. By the
> way, by "they" you hopefully mean the hardware manufacturers. If they
> provided Linux drivers as they do provide Windows drivers, there would
> hardly be any problem...

For me it isn't the drivers that are a problem, it's the HOW-TOs. If every piece of hardware came with (correct) Linux installation instructions, it would be fine. However, in the absence of those instructions, I've had to navigate an extremely confusing thicket of HOW-TOs, most of which seem to be at least two releases out of date. Even simply identifying the relevant HOW-TO file can be daunting.

There's also chat rooms and newsgroups where you can go for live advice, but I've been turned off of those locations by the sheer volume of messages I have to wade through, the literally overwhelming majority of which have nothing to do with my particular question.

Subject: Re: Linux Question

Posted by [Michael Wallace](#) on Wed, 16 Feb 2005 20:19:56 GMT

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>> you a warning. I'm a very technically astute person, and very much a
>> Linux supporter, and the software is pretty easy to install, but I still
>> have lots of problems with hardware configuration. Linux is going to
>> remain a minority operating system until they make hardware
>> configuration a lot easier.

>

> No, I don't need any warnings. I *know* this. :-)

How do you *know* this when you've never done an install before? Hmmm.

Do you just inherently believe the FUD that Micro\$oft sends your way? ;-)

Honestly, I'd be surprised if you had any major hardware problems. Having done a lot of Linux installs over years, unless a machine has something really quirky about it, the install will more likely than not just sail through and things will Just Work(TM). I have been really amazed at how easy the installs have gotten and how automagic the autodetection has become. If there's going to be hardware that doesn't get configured just right, it will most likely be something along the lines of a modem (specifically WinModems), sound card (specifically sound cards built-in rather than being an actual card), or some brand-spanking new device that doesn't yet have a driver. For the machine you mentioned and what you're going to be doing with it, I'd be really surprised if there is a problem in the install or autodetection.

- > I also know that 75% of the IDL users who run
- > Linux have their machines configured so that there
- > is no hope they will ever understand the first thing
- > about color in IDL, but that's another story, and one
- > I hope to address if I ever get the damn OS installed. :-(

Huh? What's that all about? Color works fine. Back in the IDL 5.x days, color wasn't so good. I needed to put the magic color commands in my ~/.Xdefaults to resolve some color problems, but I haven't needed that for a long time. I'm not sure when the problem was fixed, but I know that I didn't need the work-around for IDL 6.0. Color works exactly the same in Linux as it does in other operating systems.

-Mike

Subject: Re: Linux Question

Posted by [David Fanning](#) on Wed, 16 Feb 2005 20:55:07 GMT

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Michael Wallace writes:

- > Huh? What's that all about? Color works fine. Back in the IDL 5.x
- > days, color wasn't so good. I needed to put the magic color commands in
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- > that for a long time. I'm not sure when the problem was fixed, but I
- > know that I didn't need the work-around for IDL 6.0. Color works
- > exactly the same in Linux as it does in other operating systems.

You probably wouldn't believe the number of e-mails I get from LINUX users who can't get color to make sense to them. (And this was confirmed by my visit to Munich, where at least 75% of the LINUX users were confused about *something*.)

Almost always they are running DirectColor visuals. No one has ever told them anything different and they think IDL is *suppose* to behave this way, I guess. At least an awful lot of them were surprised when I told them red plots on black backgrounds are not really normal in IDL. :-)

There were perhaps 75-100 LINUX users where I was, and only one person who clearly knew what he was doing. Everyone would call him. He would storm into your office, kick you out of your chair, and sit pounding on the keys for 10 minutes. Then he would say, "There, that should do it, " and leave. Everyone of us was left wondering what the hell had just happened! After an experience like this, no one bothered to call him again. (He had learned this technique from doctors, no doubt.)

At least half the LINUX users I knew didn't know that windows were suppose to be repaired properly when they were exposed. They just re-ran their plot command if a plot window got behind something else.

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. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: Linux Question

Posted by [Jonathan Greenberg](#) on Wed, 16 Feb 2005 21:30:10 GMT

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Not to get a barrage of hate mails, but the easiest *nix which supports IDL by far is MacOS X. Spend \$500 and get the mac mini!

--j

On 2/16/05 12:55 PM, in article MPG.1c7d61192b9304db98991d@news.frii.com, "David Fanning" <davidf@dfanning.com> wrote:

> Michael Wallace writes:

>

>> Huh? What's that all about? Color works fine. Back in the IDL 5.x
>> days, color wasn't so good. I needed to put the magic color commands in
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> living go spend a couple of months with the end-users.
> You will never be the same. :-)

>

> Cheers,

>

> David
>
>

Subject: Re: Linux Question

Posted by [Michael Wallace](#) on Wed, 16 Feb 2005 21:30:51 GMT

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> You probably wouldn't believe the number of e-mails I get
> from LINUX users who can't get color to make sense to them.

I can relate. I have to explain color to all my co-workers.

> (And this was confirmed by my visit to Munich, where at least
> 75% of the LINUX users were confused about *something*.)
> Almost always they are running DirectColor visuals. No one
> has ever told them anything different and they think IDL
> is *suppose* to behave this way, I guess. At least an
> awful lot of them were surprised when I told them
> red plots on black backgrounds are not really normal
> in IDL. :-)

This really isn't a Linux problem. It's an end user problem. You can get red/black plots just as easy in Windows. And I did that a number of times before I sat down and took the time to figure out colors one day.

> At least half the LINUX users I knew didn't know
> that windows were suppose to be repaired properly
> when they were exposed. They just re-ran their plot
> command if a plot window got behind something else.

Again, it sounds like an issue with general ignorance of IDL rather than being a Linux problem. If you're not told that this is not normal, the majority of folks won't question it.

> 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. :-)

My end users are in the offices down the hall from me. Pity me. ;-)

-Mike

Subject: Re: Linux Question

Posted by [Jonathan Greenberg](#) on Wed, 16 Feb 2005 21:31:00 GMT

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Another possibility I thought of is to get a copy of Virtual PC, which gets around a lot of the hardware problems...

--j

On 2/16/05 9:54 AM, in article MPG.1c7d36d72026efed98991b@news.frii.com, "David Fanning" <davidf@dfanning.com> wrote:

> Ok, you Linux guys,
>
> I have to break down and install Linux so I can sort out some
> X Windows problems with my IDL widgets. Which flavor is the easiest
> to install for the, uh, less technically astute members of
> our esteemed organization? :-)
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> Cheers,
>
> David
>
> P.S. I'll probably put it on an old DELL laptop I have
> around here and have been using as a doorstep.

Subject: Re: Linux Question

Posted by [Paul Van Delst\[1\]](#) on Wed, 16 Feb 2005 21:52:17 GMT

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Michael Wallace wrote:

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>> from LINUX users who can't get color to make sense to them.
>
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>> in IDL. :-(
>

>
> This really isn't a Linux problem. It's an end user problem. You can
> get red/black plots just as easy in Windows. And I did that a number of
> times before I sat down and took the time to figure out colors one day.

I was gonna say....

This problem reflects more on the lack of intuition/general intelligence of the end users than linux. If I recall, DF's Munich Adventure was at some sort of observatory? ESO, right? Now, astronomer types can be a strange lot, but I reckon he (DF) has embellished a bit here for the sake of a good anecdote. If not, it sounds like the hiring practices at ESO need, uh, some review. (And the IT Customer Service Dept needs some training too, it would appear, along with all the IDL users there.)

:o)

paulv

--

Paul van Delst
CIMSS @ NOAA/NCEP/EMC

Subject: Re: Linux Question
Posted by [David Fanning](#) on Wed, 16 Feb 2005 22:21:26 GMT
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Jonathan Greenberg writes:

> Not to get a barrage of hate mails, but the easiest *nix which supports IDL
> by far is MacOS X. Spend \$500 and get the mac mini!

There you go! Throw in the IDL license and you have
a nice \$3000 package! :-)

Cheers,

David

--

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Subject: Re: Linux Question
Posted by [Michael Wallace](#) on Wed, 16 Feb 2005 22:37:54 GMT

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>> by far is MacOS X. Spend \$500 and get the mac mini!
>
>
> There you go! Throw in the IDL license and you have
> a nice \$3000 package! :-)

I'm a Linux guy, but OS X is really cool and can be a good choice for the guys who don't want to get into the tinkering side of things.

Subject: Re: Linux Question

Posted by [David Fanning](#) on Wed, 16 Feb 2005 22:55:36 GMT

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Paul Van Delst writes:

> This problem reflects more on the lack of intuition/general intelligence of the end users
> than linux.

Oh, don't even get me started on this depressing topic.

When I first started teaching IDL classes I estimated about a third of the people taking a class would probably not be successful using it. That number these days is considerably higher. Well over 50% it seems to me, and some days it seems much higher than that.

It's not really a matter of intelligence. Most of the people in an IDL class have advanced degrees in physical sciences. It is something else, and I can't really put my finger on it. (I used to think it was because they were forced to use LINUX computers, but now I know better.) They don't understand programming at all. They don't really know what a variable is, they don't know how to type a program, they don't understand how windows work on their computers. Really basic stuff I would have thought you learned as a physical science undergraduate. But if so, they have forgotten a lot of it.

My wife bears the brunt of this usually, but I don't know how these people do their jobs! But it is clear to me that IDL is not going to be of much help. I feel sad about it most of the time. I really don't know what to do about it.

- > If I recall, DF's Munich Adventure was at some sort of observatory? ESO,
- > right? Now, astronomer types can be a strange lot, but I reckon he (DF) has embellished a
- > bit here for the sake of a good anecdote.

Have you *EVER* known me to embellish an anecdote. I think not!! :-)

- > If not, it sounds like the hiring practices at
- > ESO need, uh, some review.

It's not just ESO. It's every place I have been lately.
It's what happens, frankly, when you start teaching
intelligent design in science classes. Or maybe
what happens when you let Computer Scientists
teach computer programming classes, I'm not sure.
But someone, somewhere is not getting the message
across. And scientific programming is suffering
because of it.

Cheers,

David

P.S. Let's just say I would be thinking about putting a lot of money
(if I had any) in Chinese software companies. :-)

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: Linux Question
Posted by [Chris Lee](#) on Wed, 16 Feb 2005 23:05:03 GMT
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In article <MPG.1c7d36d72026efed98991b@news.frii.com>, "David Fanning"
<davidf@dfanning.com> wrote:

- > Ok, you Linux guys,
- > I have to break down and install Linux so I can sort out some X Windows
- > problems with my IDL widgets. Which flavor is the easiest to install for
- > the, uh, less technically astute members of our esteemed organization?
- > :-)
- > Cheers,
- > David
- > P.S. I'll probably put it on an old DELL laptop I have around here and
- > have been using as a doorstop.

I would vote for Knoppix, since that's what I'm using right now. It's a Debian distribution with a good hardware detection at bootup. If you download the LiveCD you can try it in the laptop without any installing. That will at least tell you whether the laptop will have any chance of running other distributions.

At work, there are various IDL versions running on both Redhat 7.3, 8.something and Debian sarge/unstable. Even though IDL says in quite a few places that it's designed for Redhat Enterprise edition (or I guess Fedora core 2)....You didn't really think the Linux users in this group would all give you the same answer did you? Don't forget to lean to use IDLWAVE, the IDLDE under linux is.... not good.

As for the color, that's the way it's meant to be dammit ! I don't need no stinking true color :, 256 colors - a few special ones (CMYK,RGB,W) are plenty.

Anyway, my GUI frontend to the PSEUDO function is so much fun to play with, I hardly get any work done anymore.

Chris.

Subject: Re: Linux Question
Posted by [David Fanning](#) on Wed, 16 Feb 2005 23:14:26 GMT
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Christopher Lee writes:

> Anyway, my GUI frontend to the PSEUDO function is so much fun to play
> with, I hardly get any work done anymore.

I hear you, man. But I thought it was the PSYCHO function. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: Linux Question
Posted by [Paul Van Delst\[1\]](#) on Wed, 16 Feb 2005 23:28:23 GMT

David Fanning wrote:

> Paul Van Delst writes:

>

>

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> and some days it seems much higher than that.

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> It's not really a matter of intelligence. Most of the
> people in an IDL class have advanced degrees in physical
> sciences. It is something else, and I can't really put my
> finger on it. (I used to think it was because they were forced
> to use LINUX computers, but now I know better.) They
> don't understand programming at all. They don't really
> know what a variable is, they don't know how to type
> a program, they don't understand how windows work on
> their computers. Really basic stuff I would have thought
> you learned as a physical science undergraduate. But
> if so, they have forgotten a lot of it.

Ah, I know what you mean. When I first came to the US ('93) I was amazed at the number of graduate students (in science fields) that didn't know how computers worked and had never programmed at all. How can that be?!? Bizarre. Didn't everybody learn about registers, CPUs, ALUs, Math Coprocessors, etc. in their Experimental Methods classes?

Even now, I know people that can do fully polarimetric scattering and radiative transfer calculations in their head but bummer me if they can understand floating point numbers (so 0.1 isn't really 0.1? Huh?) I thought everybody learned that stuff.

> It's not just ESO. It's every place I have been lately.

yeah, I know -- my comment was mostly mucking about (apologies to all the ESO folks that read this newsgroup :o)

> It's what happens, frankly, when you start teaching
> intelligent design in science classes.

uh oh... watch it. If there's one Enlightenment idea that never made it across the pond, that's it. All followups to talk.origins.....

- > Or maybe
- > what happens when you let Computer Scientists
- > teach computer programming classes, I'm not sure.
- > But someone, somewhere is not getting the message
- > across. And scientific programming is suffering
- > because of it.

Maybe it's because writing code/getting results is **too** easy nowadays? (Thanks, IDL. Sheesh. :o) And maybe the ease of writing code that produces copious amounts of data contributes to the generation of errors too subtle to stand out?

Anyway.....

paulv

--

Paul van Delst
CIMSS @ NOAA/NCEP/EMC

Subject: Re: Linux Question

Posted by [Jonathan Greenberg](#) on Wed, 16 Feb 2005 23:35:24 GMT

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Yay! Those are the wonders of a license server tho -- how much is the upgrade from standalone to license server? A lot less than a new license I'm guessing...

--j

On 2/16/05 2:21 PM, in article MPG.1c7d75553b2ffa0a98991e@news.frii.com, "David Fanning" <davidf@dfanning.com> wrote:

- > Jonathan Greenberg writes:
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- >> Not to get a barrage of hate mails, but the easiest *nix which supports IDL
- >> by far is MacOS X. Spend \$500 and get the mac mini!
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- > There you go! Throw in the IDL license and you have
- > a nice \$3000 package! :-)
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- > Cheers,
- >
- > David

Subject: Re: Linux Question

Posted by [mperrin+news](#) on Thu, 17 Feb 2005 03:50:27 GMT

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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. :-)

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"?

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
