

Desktop Adapted for Dad.



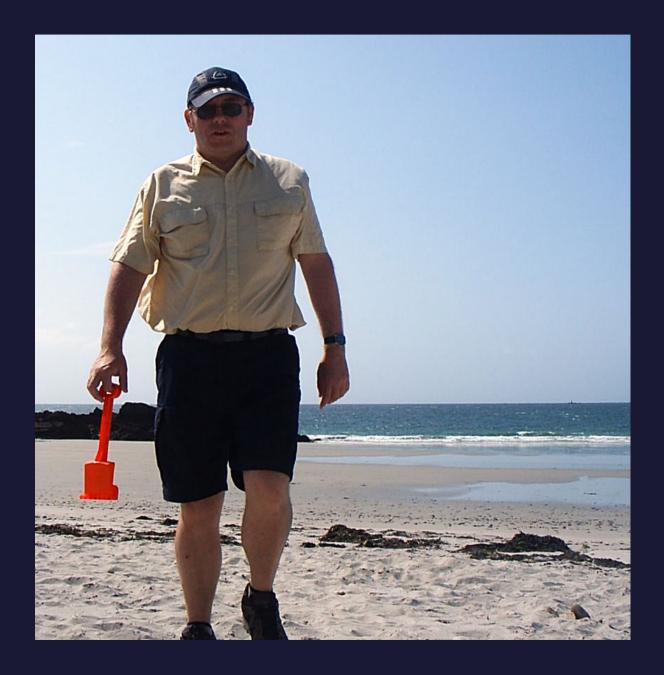
Adam John Trickett

www.iredale.net
adam.trickett@iredale.net
GPG Key: 0xAF0DB8C8

Once upon

atime

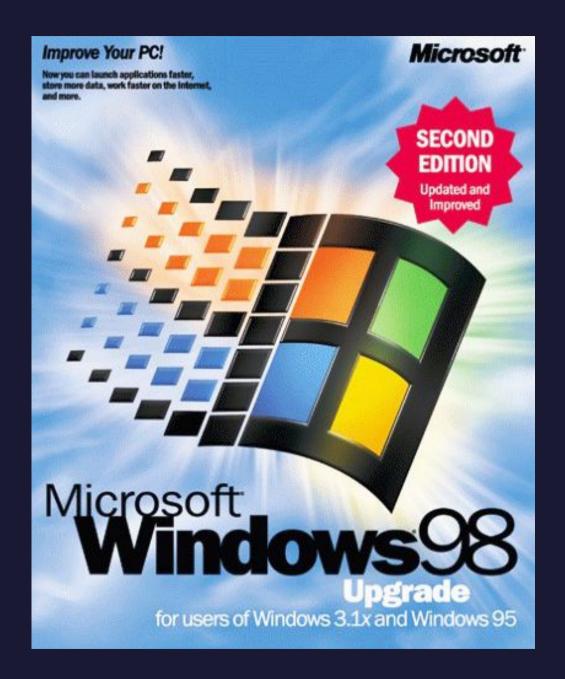
A
"dot com"
son







Microsoft Windows 98





Not Quite As Old





Press F1 for help, or ENTER to boot: linux26_

Lived happily

ever after...

Mum v Dad

- Windows 98
- · Dial-up
- Vanilla installation and configuration
- No remote administration
- Some computer & office experience
- Not used much

- Debian 3.1 "Sarge"
- Dial-up, later ADSL
- Bespoke installation and configuration
- Remote administration
- Little or no computer experience
- Used quite often

Adapting the Desktop for Dad

- Research:
 - Google
 - Local LUG mailing list
 - RNIB/GNOME/KDE etc.
- Bespoke installation and configuration
- Installation and training
- Continuing Support

Distributed under a creative commons Attribution-NonCommercial-ShareAlike licence.

GNU/Linux?

Remote Administration

- Dad lives in Lancashire
- I live in Hampshire
- SSH & VNC are built-in and "just work"
- With ADSL the phone line is available when online

Security and Reliability

- · Linux has virtually no malware
 - No third party AV software required
- Linux has a built-in reliable firewall
- Automated whole system updates
- I know Linux better than Windows
 - My dad doesn't care about security because I do!

Distributed under a creative commons Attribution-NonCommercial-ShareAlike licence.

Version 2.3.0 © Adam Trickett, November-2012

It's an old "naked" PC

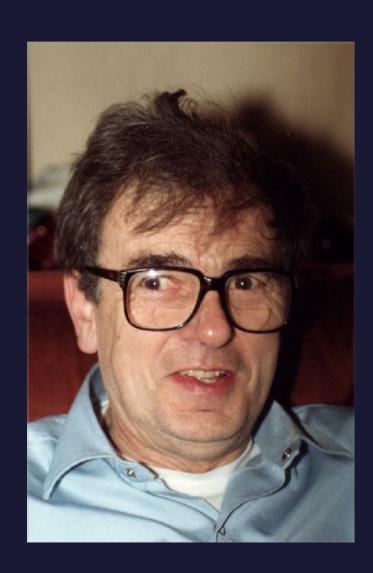
- Linux is lighter than Windows XP
 - Intel P2 233 MHz, 256 MiB RAM & 5 GB HD
- Linux didn't cost me anything
 - £0 for Debian vs £50 for Windows XP Home
- With Linux no 3rd party applications required
 - No AV, no firewall, no remote admin

Dag Versus

the PCGUI

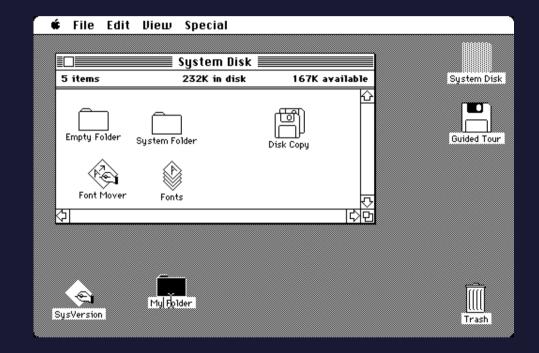
Dad

- 76 years old
- Never used a computer in his life
- Did not work in an office
- Has never used a keyboard or typewriter
- Wears bi-focal glasses
- Has glaucoma



Graphic User Interface

- Invented late 1970s
- Lots of 70s/80s office metaphors
- Requires good eyehand coordination



The Plan

Less is More

- Remove any application that wasn't required
 - All "server" functionality
 - Compilers and language outside the core
- Stripped the GUI menu down to only the essential items
- Removed all desktop icons
- · Clean and simple menu bar

Colour and Contrast

- Many "cool" desktop themes don't have enough contrast
- Select a higher contrast colour theme
- Make the mouse pointer a contrasting colour from the main theme colours
 - White or pale backgrounds
 - Black text
 - Large red pointer

Screen Fonts

- Sans-serif typeface
- · Large x-height

Version 2.3.0 © Adam Trickett, November-2012

- Screen optimised font e.g. Verdana
- · Large size: do not reduce the resolution

It x-height

Distributed under a creative commons Attribution-NonCommercial-ShareAlike licence.

Desktop Icons & Images

- Select a clear icon set rather than a cool one
- Select the larger size for Icons
- Tool-tips are useful to new users
- Don't skimp on the monitor, 19" units are dirt
 cheap

Application Buttons and Icons

- Large icons and buttons
- "Text and Icon" mode if supported
 - Most people have no idea what most icons are and what they represent...!
- Menus are hard to navigate for new users, buttons if clear, are easier



Avoid Double Click

 If the user has never used a computer with a mouse before, then avoid it where possible

 It's very hard to learn and requires a lot of physical dexterity

 It actually takes a lot of effort to learn how to drive a mouse



Written Instructions

- Write things down on paper
 - Help files aren't that helpful
 - I find some man pages unhelpful
- Try out and follow your own instructions: it's too easy to miss a step

Make Things Easy

- Auto-login is okay on a single user system
- Set the right defaults
- Do use a user account a user can't wreck the system
- A mouse and GUI isn't that easy...!

After the Deployment

- Dial-up was too slow, upgraded to the ADSL
- * Fonts set larger and larger
- Icons set to largest size possible
- Replaced CRT with TFT, then large TV
- Constant upgrades from Sarge to Squeeze...

ADSL Upgrade

- Dial-up is too slow
- Dial-up ties up the phone line
- · Upgrading is painful over dial-up
- Scheduling email is not obvious or easy
- Upgrading to ADSL:
 - Faster browsing, email and upgrade
 - VNC and simultaneous phone support works much better than silent dial-up support

Observations

- My idea of a large font was very not the same as my father's
- Menus and icons are not as obvious as you first think
- Menus are hard to use for a new users
- Bifocals make reading things a lot harder than you would otherwise think
- Not being the root user was a relief for my father

More Observations

- Upper/Lower case hard
 - Makes passwords a pain
- Non-printing passwords
 - · Makes it ······!
- Many interface elements are not that obvious

Distributed under a creative commons Attribution-NonCommercial-ShareAlike licence.

User vs Superuser

- Anyone can use a computer:
 - Little or no skill required
 - No responsibility required
- Not everyone wants to be a superuser:
 - · Requires skill
 - Involves responsibilities
 - Takes time and effort

Screen Shot

Examples



















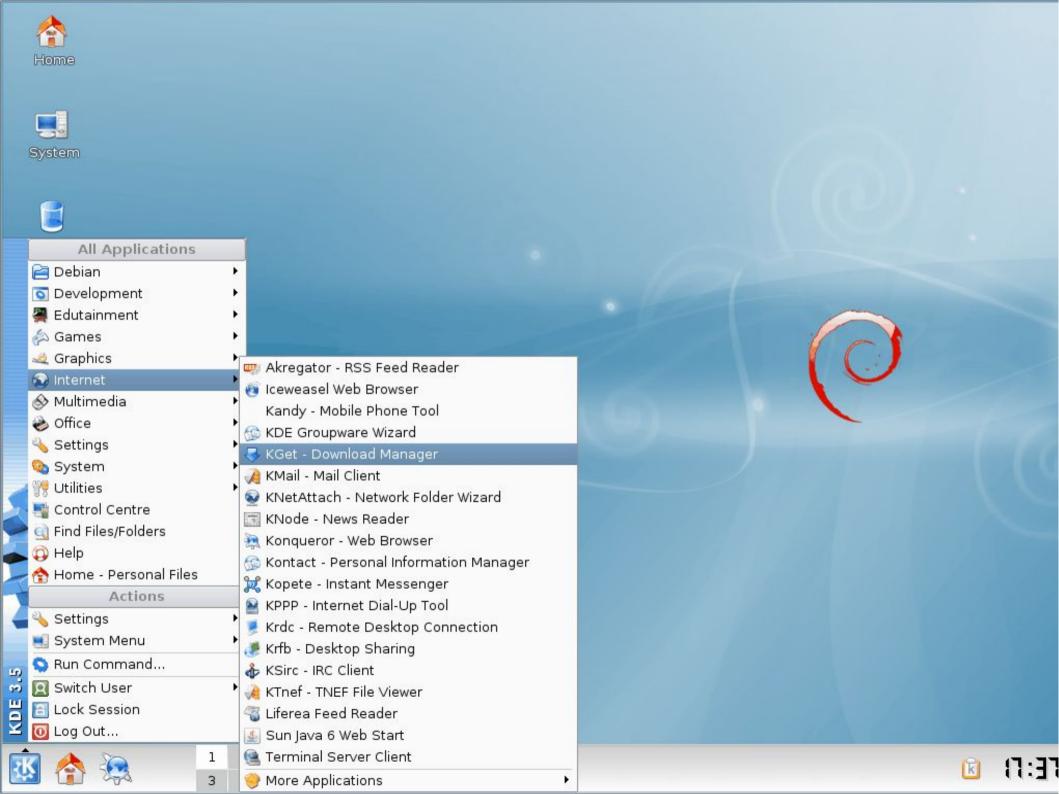


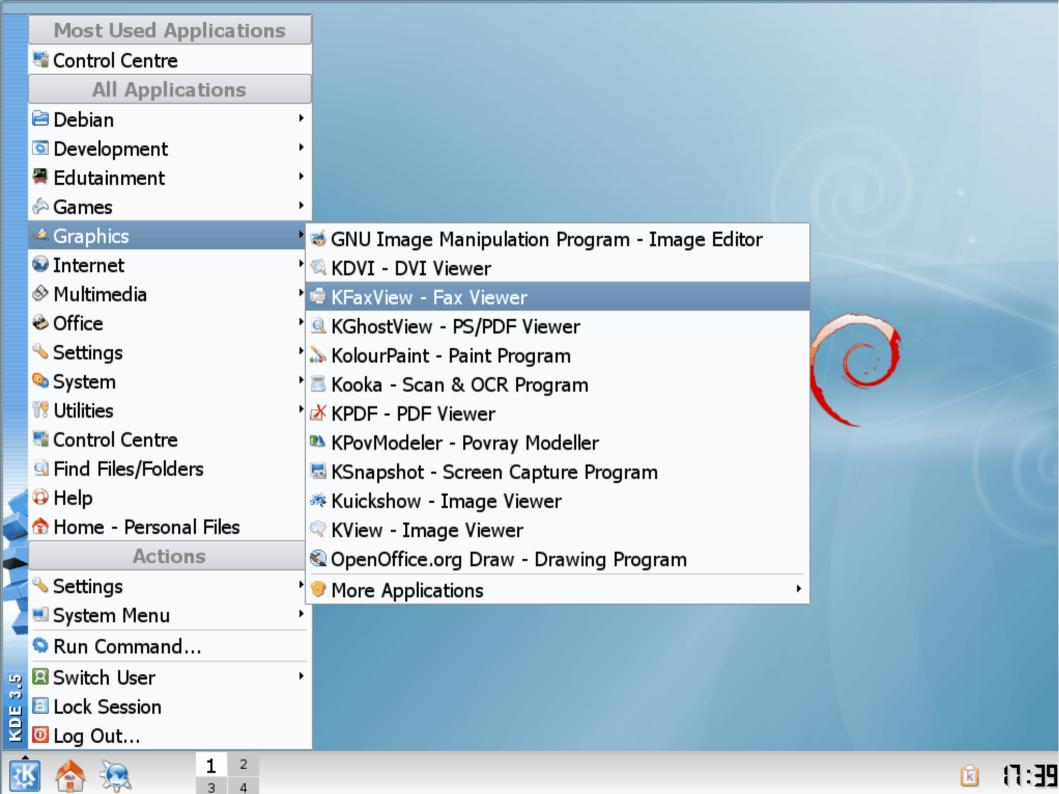


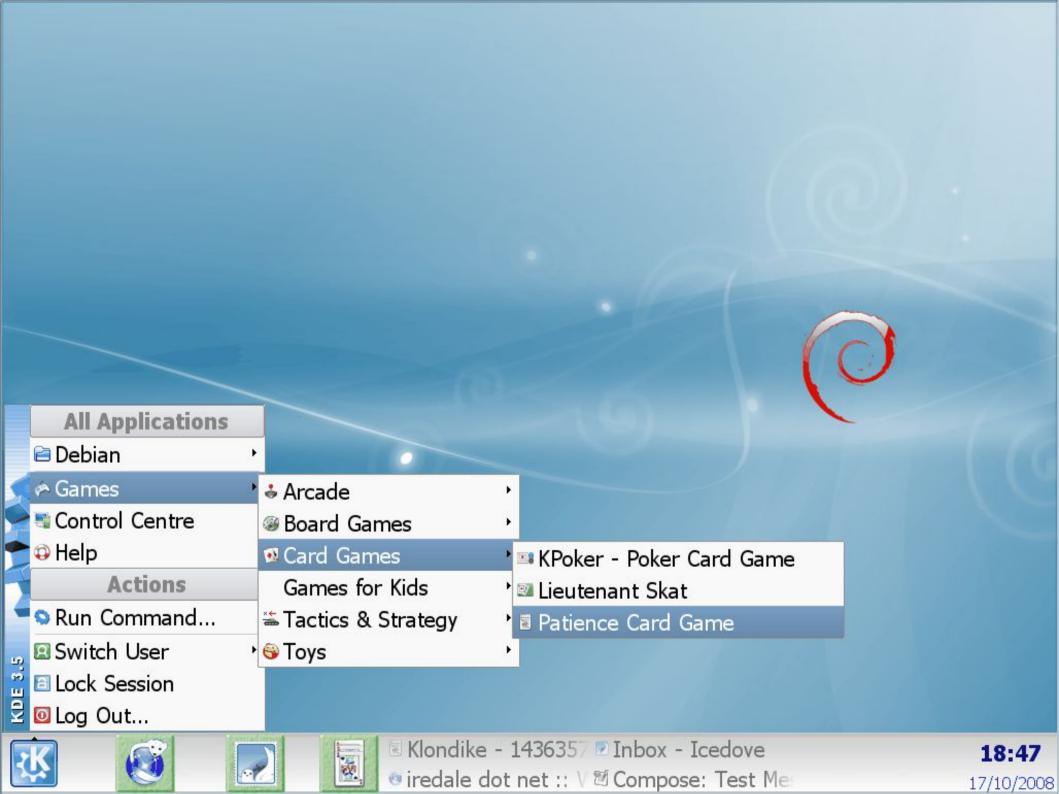














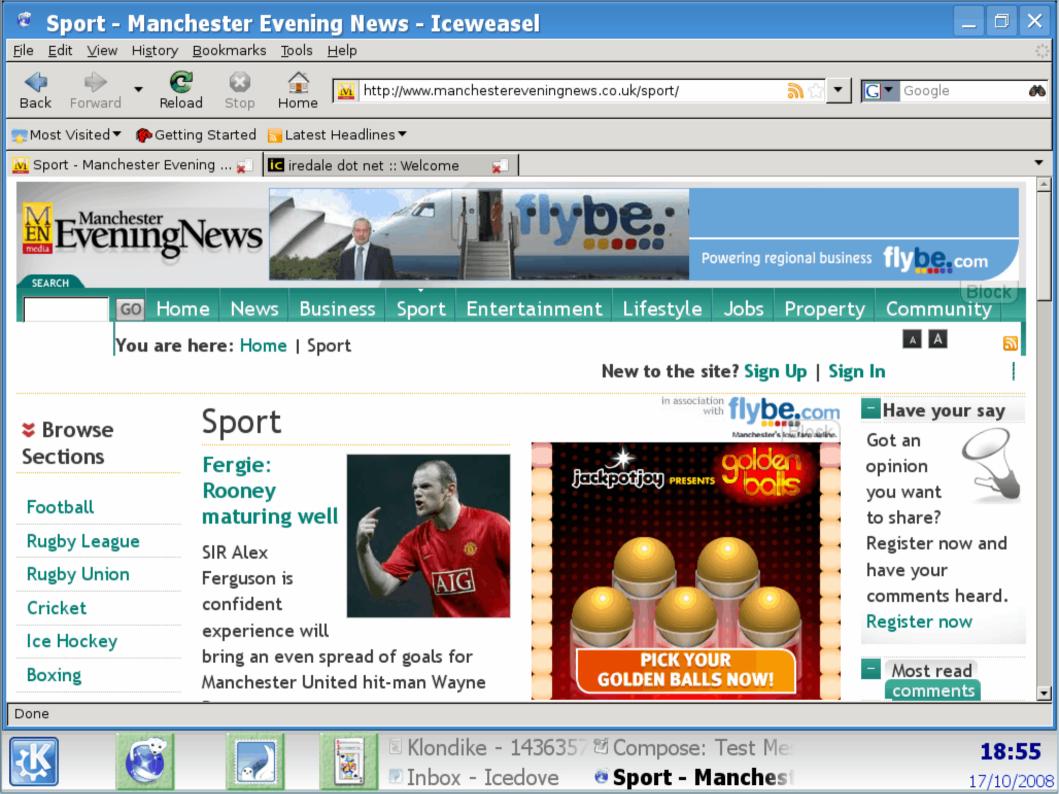


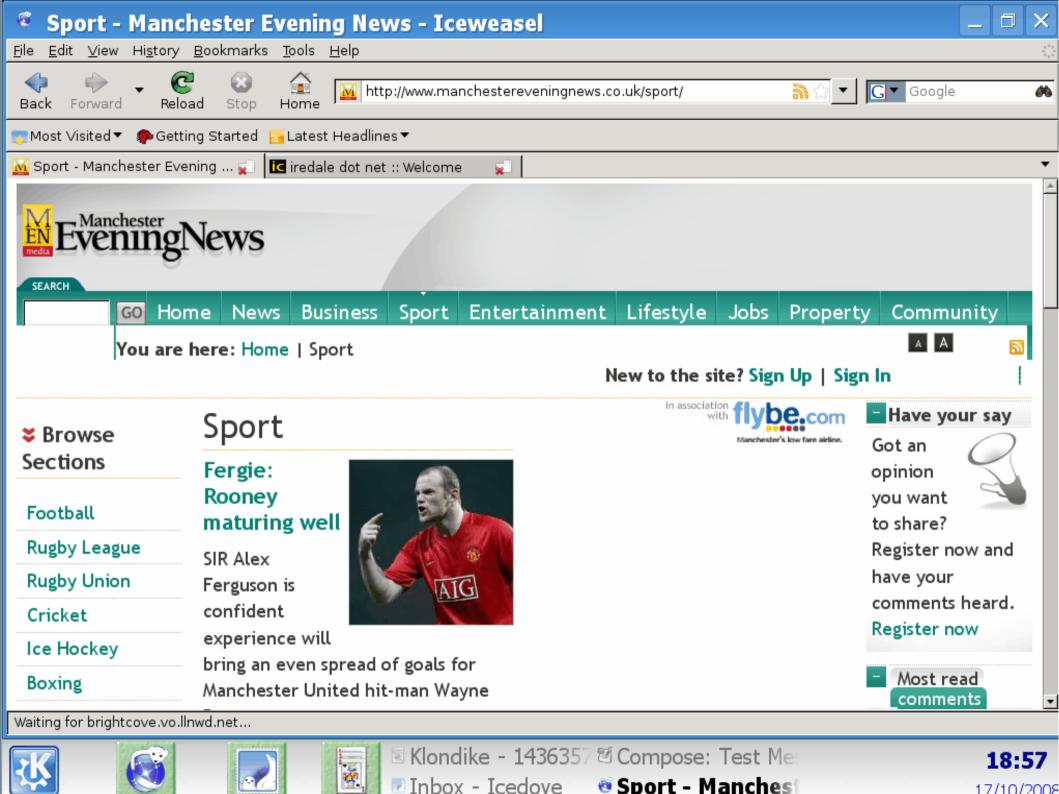


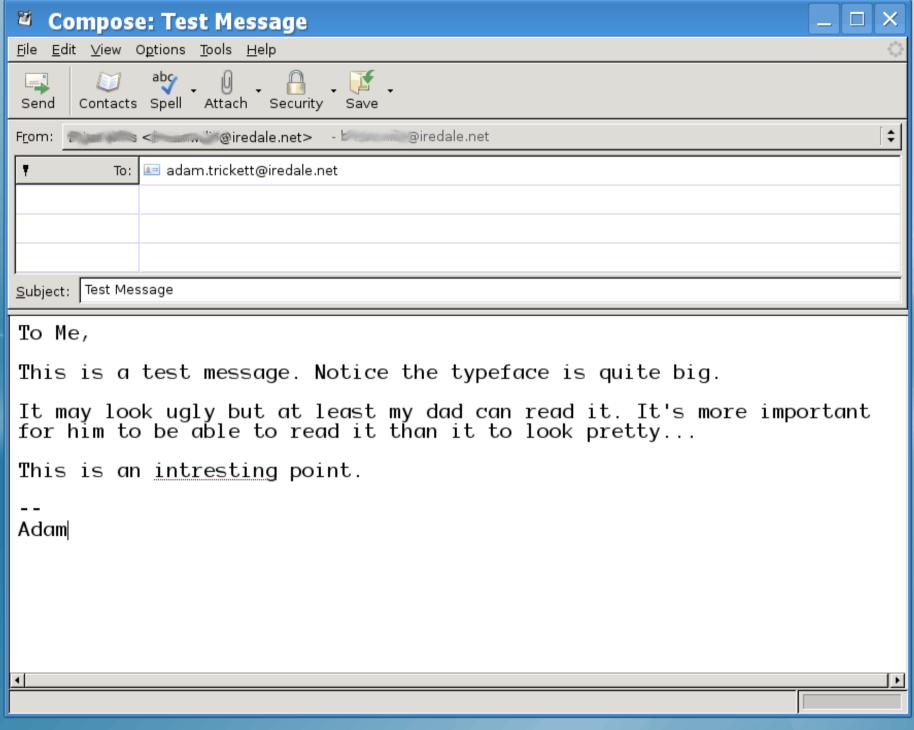




iredale dot net :: V ™ Compose: Test Me





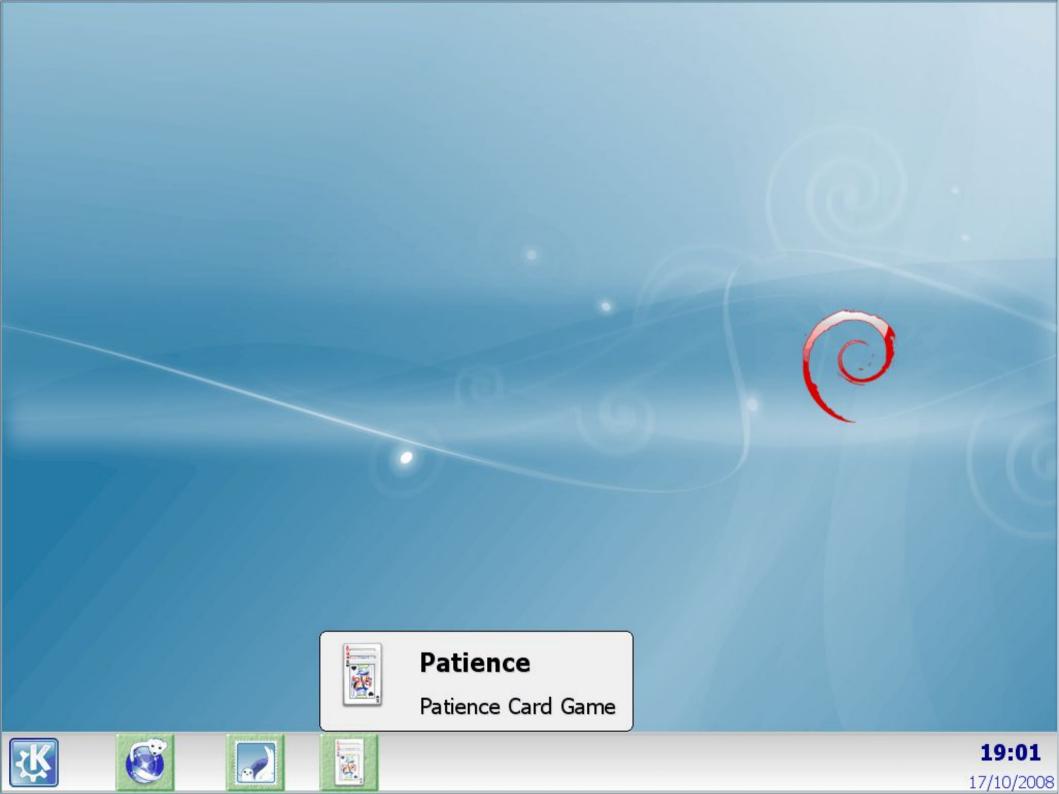








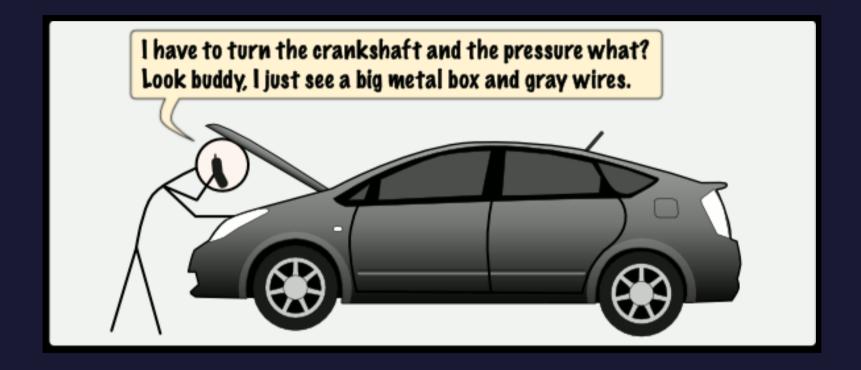




Lessons Learned

- Anyone can use a computer if it's correctly set-up for them
- My preferences are not your preferences
- Listen to your users
- One size does not fit all

The problem with tech support...





WellingtonGrey.net

Links

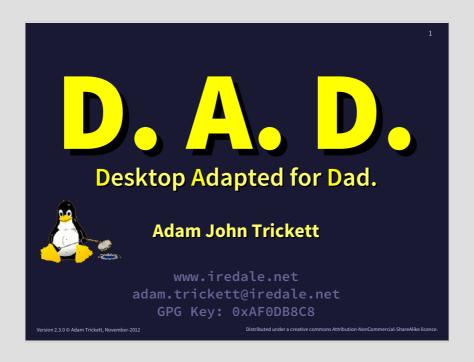
- http://www.iredale.net/p/
- http://accessibility.kde.org/
- http://developer.gnome.org/accessibilitydevel-guide/3.0/
- http://www.debian.org/devel/debianaccessibility/
- https://wiki.ubuntu.com/Accessibility

Thank You

Any Questions?

Advert...

- Desktop Virtualisation
- How To Impress
- Introduction To Perl
 - And other Perl talks
- Energy Monitoring & Thermal Imaging
- How-To Live a Low CO₂ Life



Hello and welcome to my talk on "Desktop Adapted for Dad", and yes I did spend time to come up with a recursive talk title...

This talk is a minor revision of a series of talks I previously gave to the Hants-LUG and UKUUG.



I'd like to begin with a story...



Here I am. I'd have a baby photo but I don't have them and the family members with the baby photos don't have a scanner. To prove I'm the son I've got a spade to make a sandcastle!

During the "dot com boom" I worked in for a dot com.

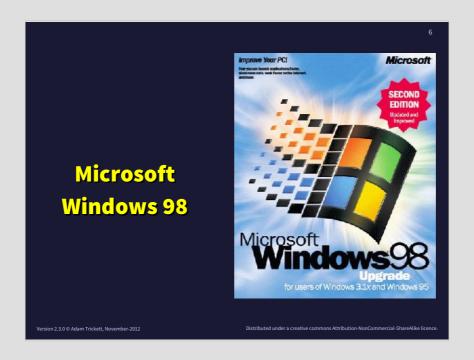


Here are my "proud" parents. Mum and my step-father.

My mother took early retirement on ill-heath grounds and was stuck at home with nothing to do. My mother had worked in an office most of her adult life and had used computers for the last 10 years at a doctor's surgery.



We had lots of old computers at work – though not quite as old as this one. I asked my mother if she wanted a free one for home. She said yes, so I set her up with an old scrap computer.



Windows 98 was the dominant desktop OS at the time, NT4 was pretty unusable and I wasn't confident enough to set her up with Linux.



My mother didn't use the computer much and after her death the computer ended up in a skip. Well actually I gave it to a recycling charity and I hope it didn't end up in a skip.

My father had no interest in the computer it was just in the way to it had to go.



The dot com burst and I lost my job. I got a new job in an IT role, in a non IT company.



Pre "WEEE" directives my employer gave away computers to staff. I asked my father if he wanted one and too my surprise he said yes.

My mother never really got into her computer, it was a constant stream of small problems and so this time I was determined to start properly and get things right and not have any problems.



I picked Debian Sarge as the desktop system, not the most popular desktop system on the market, but as the Windows 98 experience proves popularity doesn't count for much.



My father will never write code or contribute to the kernel but he is happy with the tools he has and more than 7 years later is still using his computer. He's had three boxes, four screens and many updates!

Mum v Dad	
· Windows 98	· Debian 3.1 "Sarge"
· Dial-up	· Dial-up, later ADSL
 Vanilla installation and configuration 	 Bespoke installation and configuration
· No remote administration	· Remote administration
 Some computer & office experience 	 Little or no computer experience
· Not used much	· Used quite often
Version 2.3.0 ® Adam Trickett, November-2012	$\label{thm:commons} \textbf{Distributed under a creative commons Attribution-NonCommercial-ShareAlike licence.}$

Here you can see the comparison of my parents and their computer experiences.

On paper my mother should have taken to the computer easier and quicker than my father.

In theory the wide availability of magazines articles and books on Windows 98 should have made my mother's experience easier but it had no positive effect. My father hasn't been restricted by running a "Geek" version of a "Geek" OS.

The key differentiator is the installation type, Vanilla Windows 98 did not work, but bespoke Debian did.



For my mother I installed a fairly close to standard Windows 98 system. Even though I personally prefered Netscape, I even set the machine up with IE because it was the browser in library books and magazines.

For my father I decided on bespoke:

- •I started by carrying out research, which was hard and annoying: lots of poor advice, contradictory advice, nothing made sense.
- •I emailed my LUG and asked them for input, quite a few members supported old family members or were themselves older than me.
- •I then tried to put myself in my father's shoes and configured the machine in the way I thought he would want – not how I would want.
- •We installed it over Easter and spent several days tweaking the installation.
- •Since deployment I've continued to provide support and answer dad's questions the best that I can.



Why did I pick Linux when Windows XP would have been the sensible solution?

Why did I pick Debian when Ubuntu would have been the obvious Linux to pick?

The choice of OS is **personal**, if you use Fedora or Mac OSX then that's probably the best option to select.

I wanted to fix, work and help dad from the other end of the country.

Not being able to see what is going on is a real pain – my dot com job had been Tech Support and banks only let you see what's going on in person...!

My father like many older users is genuinely concerned that having a computer will allow people to steal what's left of his pension.

I'm worried that SPAM, adware, and other nasties will put my father off or confuse him.

I'm the one who is responsible for the machine and I believe that I can make a Linux box secure – I'm not convinced I can do the same for Windows.

Linux administration is centralised and easy – the same can't be said for Windows.

Finally it's an old PC and work gave it away naked. That means no OS on the box and Windows XP retail isn't cheap.

Additionally Debian is complete, Windows XP needs all sorts of third party applications to make it anywhere near usable



I've used computer on and off since I was 10 years old, more than 75% of my life.

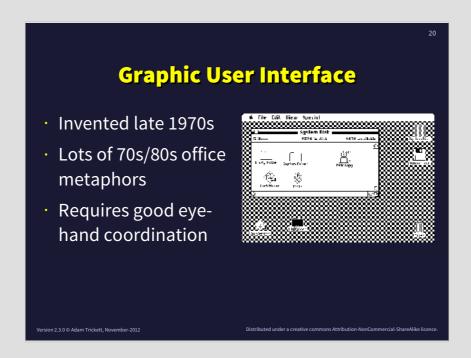
I've used Windows and some for of Unix/Linux for over 2 decades.

My father has barely ever used a PC in his life.



Dad at the time we gave him the PC.

I realised non of the metaphors would mean anything, non of the concepts meant anything either, he had never developed any keyboard skills and did not have the eye hand skills of someone brought up on computers.



The GUI, goes back a long way, but it was created by bright young people trying to solve office like problems. It's very dependant on good eye-sight to see the icons, good hand skill to use a mouse, and familiarity with office ideas behind the metaphors.



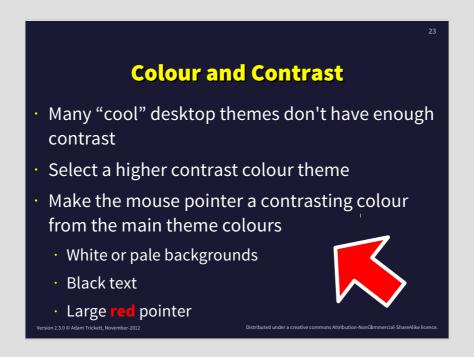
How did I adapt the desktop for my dad?

Removed anything my father wasn't going to use. This was mostly to keep the machine lighter as I didn't have much disk space to play with and hence keep updates fast.

Debian by default offers many applications in the menu path, too many, so lots of applications were removed or hidden so that the menus became much shorter.

I'm not convinced that desktop icons are useful, so I got rid of them, interestingly so did ubuntu.

I removed items from the menu bar, made it more obvious which icons were which and made the typeface larger.

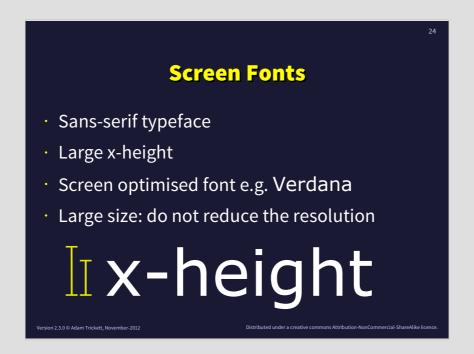


My father isn't interested in cool but he is interested in functional.

I picked a fairly stark high contrast screen colour theme. I did like yellow on black like bus and train destinations, but it doesn't work very well on a computer – though it does look very cool. Most of us are use to black text on white so that's what I more of less went for.

I picked the largest pointer theme I could find, and picked something that would contrast with everything else.

The desktop isn't the prettiest I've ever seen.

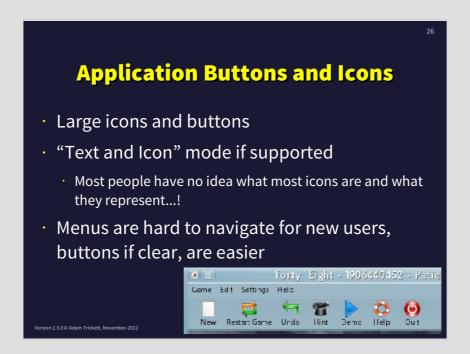


I picked what I thought was a very large size of a sans-serif typeface. I specifically picked one optimised for screen reading with a large x-height.

Many people lower the resolution because the fonts are too small, I did not do this as it just makes the fonts look jagged, I made the fonts bigger.

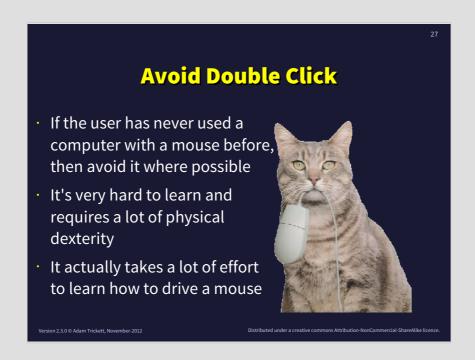
As with the fonts I picked a clean icon theme and set it at the largest size I could.

I turned on tool tips which can be helpful for new users.



With each application that my father would use I set the menu bars as large as I could and turned on the icon and text option. If you ask me it looks really ugly – but I think my father found it more useful.

I discovered that using the menu is hard for my father and that big icons are easier to hit with the mouse.



I can't remember not being able to double-click, but I've spent many a frustrating hour trying to teach it to others.

Double click is evil and I turned it off as much as I could. Even after more than 4 years my father isn't good as double clicking, and many younger people I see at work don't do it properly.

Write things down.

Follow your own instructions – the gulf between what you say and what you do can be large.

My father liked the written instructions and used them for several weeks to get him going.

Let's be honest most on-line help is rubbish, most man pages are unintelligible good documentation is available but it's the exception not the rule.

Windows is no better than Linux in this respect, the public library is full of Windows books, but they are mostly rubbish!

I went out of my way to make things easy.

After boot KDM logs my father in directly.

I went through the desktop and the main applications tweaking the settings for my father, removing things that would confuse and setting the defaults in a way that helped him.

I automated dial-up with an icon that he just had to press

After a few months dial-up was deemed to slow and confusing to my father – see next slide.

His eye-sight has not improved, so over time I've increased the font sizes and icons sizes making them larger and larger.

The old 17" CRT died so it was replaced with a TFT unit, which makes for more desk space. With hind sight I'd really prefer that to be a 20" or larger unit.

The machine was upgrade from Sarge to Etch, and I've got him a new machine running Lenny.

Version 2.3.0 © Adam Trickett, November-2012

etributed under a creative common Attribution NewCommonial Charefully license

Dial-up was never popular:

- Browsing too slow
- Upgrade far too slow
- Remote admin possible but very slow
- •No voice support while on-line
- Scheduling email not very obvious

I obtained a second hand ADSL router from someone in my LUG, configured it and sent it to him in the post. A little messing about with SSH and routing tables and my father was all set up on 8M ADSL. Now with ADSL:

- Browsing is wizzy fast (well sort off...)
- Upgrading is easy
- •Remote admin is easy and voice is available at the same time
- Email usage easier

Observations

- My idea of a large font was very not the same as my father's
- · Menus and icons are not as obvious as you first think
- · Menus are hard to use for a new users
- · Bifocals make reading things a lot harder than you would otherwise think
- · Not being the root user was a relief for my father

Version 2.3.0 © Adam Trickett November-20

istributed under a creative commons Attribution-NonCommercial-ShareAlike licen

I set out to do my best, by putting myself in my father's shoes and deliver a bespoke highly optimised desktop solution. However even then I was surprised by a number of things:

- •I had greatly underestimated font and icon sizes that would be required
- Menus are very difficult to navigate
- •Icons are virtually meaningless to normal people!
- •Bifocals and similar make computer use hard
- •Not being the root user or being able to do much made him feel a lot better he wasn't responsible for the PC

My father and my step father both have no concept of upper/lower case and while they know what CAPITALS are they can't use the shift or Caps Lock effectively.

The non-printing characters in a password make it very hard to be sure what he has typed.

Combine non-printing and a requirement for passwords and it's a recipe for support calls.

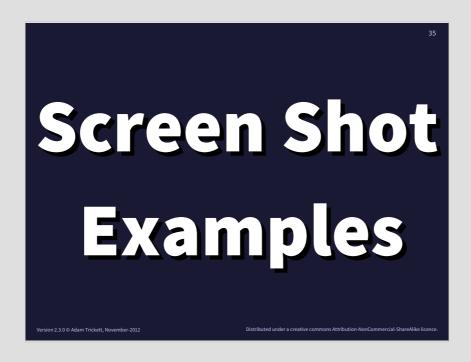
Consider option to show passwords in browser (it's probably not a security risk). Get the browser to remember what it will. Make sure you write things down on paper for backup.

The more I observe my father (and others for that matter) the more I realise how obscure many things are....



Some companies want us to believe that computers are easy to use and therefore they are easy to administer and that everyone wants to administer their own computer.

I agree that anyone can use a computer from very young children to the very old, from people with perfect physical and mental faculties to those with severe disabilities, HOWEVER most people do not have the skill or inclination to administer a computer and would prefer someone else to do the administration for them.

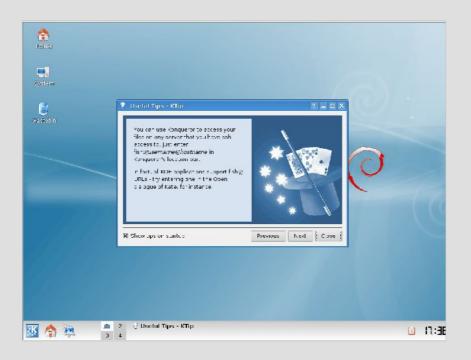


Some screen shot examples of the kinds of things I did.

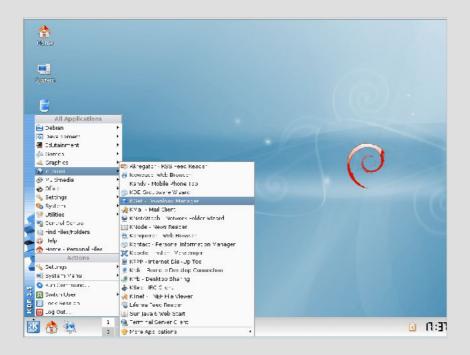
Please do not copy them as is, rather think "what does the user want?" then work from that view point.

The examples are KDE3, because it's what I used and liked, the ideas apply to any desktop even Windows.

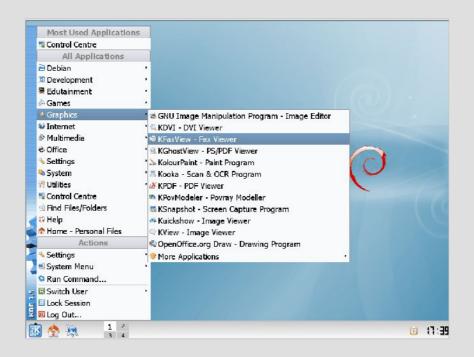
My father's desktop is now running KDE4 but the principles still hold.



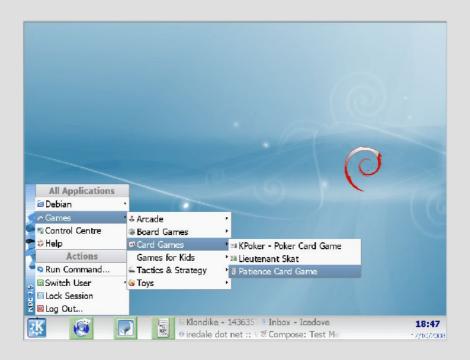
Here is a default KDE in a VirtualBox session. Pretty much as is for Debian Lenny.



Notice that the menus are huge and the font is small.



Much larger font, I think it's starting to look ugly, my father would say it's starting to become readable



I've edited the menu to make it smaller.

I've changed the bar to make it bigger and isolated the buttons. The clock is no longer fancy, and I've removed the multi-screen feature.

Desktop icons have gone.



Here is his favourite game. Its for mouse training.

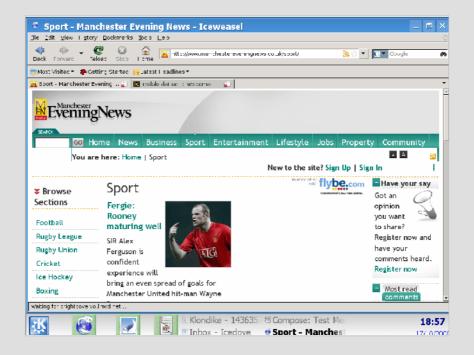


Iceweasel isn't a KDE application so it doesn't look so good on KDE.

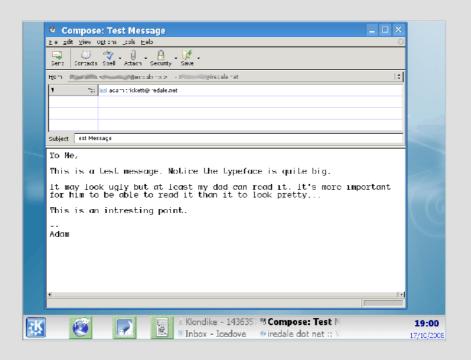
I made the font huge – many commercial web pages look really ugly now.

I did consider Konqeror, but I know Iceweasel better and there are plug-ins to get of adverts and stuff that were not available for Konqeror at the time.

I added some book marks for him, several local newspapers, the BBC and various sports news site.



With adverts turned off. Many web sites are unusable with adverts on. I know they want the advertising money, but once you jack up the font size you can't see anything at all!

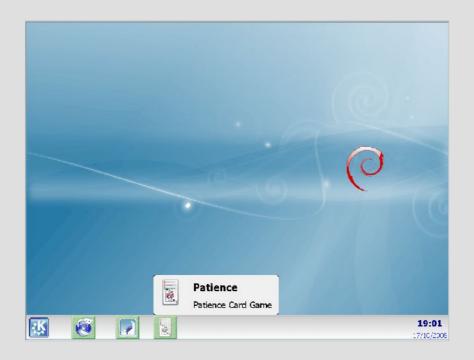


Here is Icedove. I now use KMail so if I were doing this again I would use KMail not Thunderbird or Icedove. Like Iceweasel or Firefox it doesn't integrate as well as a KDE application would do.

I made the type face huge and did my best to set it up for him. Dad like email, my brother and I both live away from my father and other family and friends can contact him with email.

Now he has broadband we can send him holiday pictures that make him feel a bit more included.

What does the wiggly underline mean? My father never guessed!



Here is a blank desktop, with balloon help enabled.

I realised that anyone really can use a computer

I realised that everyone is quite different, even when you put yourself in someone else's shoes you can still be way out.

Listen to what people say and act on their requests.



Remote tech support is hard – I know. Neither party has a good time.

For my father it should just work.



. . .

```
Links

http://www.iredale.net/p/
http://accessibility.kde.org/
http://developer.gnome.org/accessibility-
devel-guide/3.0/
http://www.debian.org/devel/debian-
accessibility/
https://wiki.ubuntu.com/Accessibility
```

Some links.

You can find my earlier versions of this talk from my site.



Please feel free to ask anything...!



I'm happy to do other talks, these are topics of up to date talks.