



GATEWAY

**The Official Magazine of the Gippsland
Gate Radio & Electronics Club Inc.**

March 2022



10M Net

Three Dead PC's

What's In A Cord?

And More

Contents.

- 3 – President's message
- 4 – From the Editor - Shack Power
- 5 – GGREC Club Activity and News
- 6 – Your membership dues are due
- 7 – 10M Net
- 8 – "Introducing the squid pole" – a club project in pictures
- 9 – Three Dead PC's
- 13 – What's In A Cord?
- 14 – Recycle it
- 16 – Club Information

Note: - club meeting minutes are now via a link in club emails sent out by the secretary.

Event Queue

March:

- | | | |
|---------------------|------|---|
| 18 th | 8:00 | General meeting, Guest Speakers Ian Jackson VK3BUF
& Chris Chapman VK3QB on QRM Guru |
| 19-20 th | | John Moyle Memorial Field Day - Courtesy WIA |

April:

- | | | |
|------------------|------|--|
| 1 st | 7:30 | Prac/Squid Pole Antenna project |
| 29 th | 8:00 | General Meeting / Annual General Meeting |

May:

- | | | |
|------------------|------|---|
| 6 th | 7:30 | Prac Night - TBA |
| 20 th | 8:00 | General Meeting - Buy Swap and Sell night |

June:

- | | | |
|------------------|-------|---|
| 3 rd | 7:30 | Prac Night - TBA |
| 17 th | 8:00 | General Meeting - FLEX RADIO Live stream presentation. |
| 18 th | 12:00 | Mid-Year Lunch - La Porchetta Pakenham (To be confirmed). |

<p>Club run events are only possible with the involvement of ALL members.</p> <p>Without volunteers to coordinate and participate in club events the club will fail to prosper</p>
--

GGREC President's Message

Presidents Message March 2022.

It was great to see a big attendance at the February General Meeting to hear the presentation by Peter Coussins on Digital Amateur Television. The presentation gave an insight into how to easily set up an ATV station and get on air from your shack. A recording of the presentation was made and I will send out the link to the video when it comes to hand.

April the 29th is our combined GGREC General Meeting and Annual General Meeting (Note the change of date). This is your opportunity to get involved with the administration of your Club and to set the direction of GGREC for the next 12 months. We need new committee members with fresh ideas to kick start the Club after a long lockdown.

I hope those of you that decided to build the 20M/40M Squid pole antenna have been busy constructing it over the last 2 weeks. Thank you to Bruce Williams VK3BRW for his effort to source the components and provide detail instructions to make building the antenna as easy as possible.

GGREC sends our best wishes for a speedy recovery to Leigh Findlay VK3FACB, who is currently in hospital.

73,
Bruno Tonizzo VK3BFT,
President GGREC Inc.

March Guest Speaker

At our General meeting on Friday March the 18th, we will be having a presentation from Ian Jackson and Chris Chapman regarding how to identify, locate and hopefully fix noise sources affecting your radio reception. You will find the QRM GURU web page <https://qrm.guru/> is full of valuable information on how to solve interference for Amateur Radio. If you haven't already visited this site, please have a look and explore the pages of valuable information.

Gateway is the official journal of the Gippsland Gate radio & Electronics Club.
It is published in good faith for its members and other interested parties. The articles here in do not necessarily represent the views of the committee or the membership.
Any material that may be copyright has been included with permission where available.
If there is an issue with copyright please contact the editor

From The Editor



Shack Power,

On the 10:00 VK3RGW net, mention was made about terminals with captive 'nuts' that prevent one from using loop lugs. This got me thinking of DC power distribution in the shack in general.

If you have a smallish power supply, say 25A, just enough to run a HF rig, or maybe less if you are not into 100W on HF, then things are not that complicated, however if your supply is somewhat

larger, and you then supplement it with battery backup then you better start thinking how you are doing things, but more importantly, protecting yourself.

It does not take much for your 12V system to blossom with lots of loads, the trouble is when one of those goes wrong. If you pop a dead short on one of the loads leads, will your 12V setup safely 'give up' or will a battery etc. kick in and cause lots of smoke. (with a dash of fire)?

I was once handed a hand-held radio, that had an 'adapter base' that allowed that HHT to be run off the shack supply, trouble was he got the wires back to front and the supply, dimensioned for a large HF radio, blew the absolute crap out of the radio. If it had been connected to a 1A plug-pack supply, probably no damage. (I hate banana plugs for 12V....)

This reminds me of a scenario in a car, where one follows the manufacturers guide and run a HF radio's black and red leads all the way to the battery. All is well unless the battery suffers a poor connection to the vehicles chassis, i.e. the earth strap 'fails'. Then when you jump into the car and go to start it, the negative from the battery flows up the radio's negative lead to the radio, through the radio, then down the antenna lead to the fender mount to the car body. As the starter motor is all but a relative dead short, compared to a radio, the cars battery is effectively dumped into the ground cct of your radio – exit one expensive radio. This is why those, usually HF sets, have a 'mystery' fuse in the negative lead, this is the purpose, don't accidentally delete it when adjusting the lead lengths. Personally, I never connect to the battery negative, but to the car chassis, and the positive always goes via a switched cct so as not to accidentally flatten the battery. (or a big relay closer to the battery, master fuse box...)

In the shack, if you are going to add a battery, put a circuit breaker or fuse as close to the positive terminal as practical, this means most of your wiring is protected. Large HF radios are less of a problem, they have heavy leads and are built to handle lots of amps, however smaller 'bits and bobs' loads are not, that small wire they come with probably cannot pass enough current to trip out a large HF style power supply, or the 30A fuse on your battery, so the device and its wiring can easily start pouring off heaps of smoke as it starts glowing red. Worse still, lots of smaller devices have no fuse at all, as the 'normal' half amp supply normally used will just give up – not so a larger supply – like the 40A switcher in my shack.

So you need circuit breakers & fuses appropriate to the load, at the current source (i.e. the main buss bar, whatever form that takes in your shack) to protect both the wiring & devices.



Paul VK3TGX

GGREC Club Activity and News

Covid Safe Meetings.

To help stop the spread of Covid we encourage members to wear a mask indoors, bring your own coffee cup, check-in to the Club shack and Guide Hall by using the QR codes. Hand sanitiser will be available for you to use at the meetings.



The 30 year old Commer

**Radio never set to low power
never will be**

Battery lasts 43 seconds

**When transmitting at night, the Aurora
Borealis can be seen in the sky**

**Violating radio interference laws
in countries he's not even in**

**Antenna can be seen
to glow in the visible
light spectrum**

**Has never once heard
the phrase "Say Again"**

**Anyone within 100 yards
is now sterile**



**Crystal clear on every
frequency at the same
time**

**Interferes with instruments
on the international space
station**

**Radio gave himself
cancer, the next
transmission killed the
cancer cells**

Hello Members,

Just a friendly reminder from the Treasury, your Club fees will be due on the 1st of April 2022 for the upcoming financial year. Your club needs these funds to provide the services you are used to.

Such as our three (3) repeaters and the club station.

VK3RGW	70cm / FM
VK3RWD	70cm / FM
VK3BJA	Club Station
VK3RDD	6m / FM

The rent of the Guide Hall. every meeting does cost us and also we have started to use the Guide hall much more than before, as we are also holding the Prac night there now, besides our regular club meetings. We also hope that a Bunnings sausage sizzle can be organised soon, we are working on it, which will help us to keep the membership fees at the current level.

Last year the Committee had been unnecessarily busy chasing up a huge number of individual members, up to late in July, for their dues. Hopefully we can avoid this activity this year and allow the Committee to chase up DX or other new activities for our club. Also honestly evaluate your membership status, are you a Pensioner but running a successful business, then maybe you should be a Full member?

Below are the current membership fees, due April 2022 to the AGM

	Annual
Pensioner	\$ 40.00
Full	\$ 50.00
Family	\$ 20.00
Junior	\$ 25.00

Electronic funds transfer is much preferred, but I will accept cash payment of AUD at the AGM and issue receipts.

Electronic funds transfer:

Make your Member ship payment to
Gippsland Gate Radio & Electronics Club
BSB 633000 - Account 146016746

Clearly provide your callsign or full name if you don't hold a call sign yet.

I will confirm each payment within 5 days after clearance in our account with an email that we have received the funds.

VK3IU

Treasurer

Klaus Illhardt [VK3IU]

[Gippsland Gate Radio & Electronics Club](#)

Phone +61 490 258 029

eMail treasurer@ggrec.org.au

10M Net

Thursdays at 8PM on 28.390MHz



After much talking about 10m and improving conditions it was recently suggested during the morning coffee group on RGW that we get a 10M net up and running and I was asked if I would be happy to run it. Absolutely I was, and that's exactly what we did. No doubt for members that have been around for a while, this is the wheel turning full circle again. I scheduled the first net for 8pm Thursday the 10th of March. Even with only a few days' notice, I was joined on 28.390 by Mike Senior VK3KTO, Klaus VK3IU, and also prospective club members Paul VK3PCS and Michael VK3OM.

Signals were ok with even Mike Senior clear to all with an inverted L, mostly horizontal while the rest of the group was vertical. I did hear back that a few tried to hear the net from Pakenham and Carnegie but had no joy so it looks like I may need to get my antenna higher again. I'll add that to my list of projects on the go, not the least of which is the 40m squid pole which is underway.

Thanks to all those that signed in, and I look forward to making this a regular weekly event. I'm also looking for a good name for the net, so taking any suggestions.

Mike
VK3TDK

"Introducing the squid pole"

Our club's Squid pole antenna construction project in action



Three Dead PC's



They say trouble comes in three's; well this tale of woe just goes to support that theory.

'The other day', or rather weekend I fronted up at my local church to run the PowerPoint slide show as I usually do on a weekend. This duty only getting more involved with Covid19, necessitating adding two camera's and another computer to enable live streaming of the whole event, as at the peak of it all there was just me, the priest and a reader. With everyone else stuck behind a TV or PC (hopefully not a phone – screens too small)

Anyway, getting back to it, I have recorded music sync'd up to the slides, you just bring up the first

hymn slide, then Microsoft's PowerPoint takes over and animates the text in sync with the music. This somewhat total automation was originally so that I could get up, leave my post and receive communion during mass, however with the live streaming of masses it became more handy as I could concentrate more on driving the camera's and the audio mixing desk.

This Saturday night (Sunday Vigil Mass) the first hymn didn't go well at all, the sync was all over the place, necessitating me taking a lots more of a hands on approach to keep it going.

At the end of mass, I went to save some very minor changes before shutting down. Well this took ages and I started getting a sinking feeling inside. I gave it a restart and that kind of went off without a hitch, so I packed up and went home. (Of course it was dead on Sunday)

As a part of a burglary last year we (the church) ended up with a spare Dell PC, it had PowerPoint and was configured for two screens, but was not setup to talk to OBS for live streaming, so on Sunday morning I grabbed it and plugged it in – only beep codes & no boot. During the ensuing time its CMOS battery had gone flat and all the configuration info lost. I got into the setup menu and restored defaults, it could see the hard drive, but froze half way through the Windows startup animation. So now two dead PC's

Now earlier on I mentioned the second PC for streaming, well it has a copy of PowerPoint, so I quickly copied the slides over as mass was about to start. This kind of worked but was awfully 'clunky', if PowerPoint was front and central (i.e. 'in focus') all was well, but as soon as I clicked on either of the cameras, or the OBS video streaming software, PowerPoint would stop cold. Normally this is not a problem as most slides are just static images that stay up on the projector, however if we were playing a hymn, complete with animated lyrics on the screen, it was a big issue as everything stopped cold until I clicked back into PowerPoint at which time the music resumed.....

My only option was to set a wide-ish view on the camera, start the music, then don't touch anything until it ended – not what I really wanted to do, but I had no option, thanks Microsoft.

- And yes, I did try Googling the issue – basically nothing.

After the mass, the parish priest came over and asked me to have a quick look at his computer, he was of the opinion that his monitor had failed.

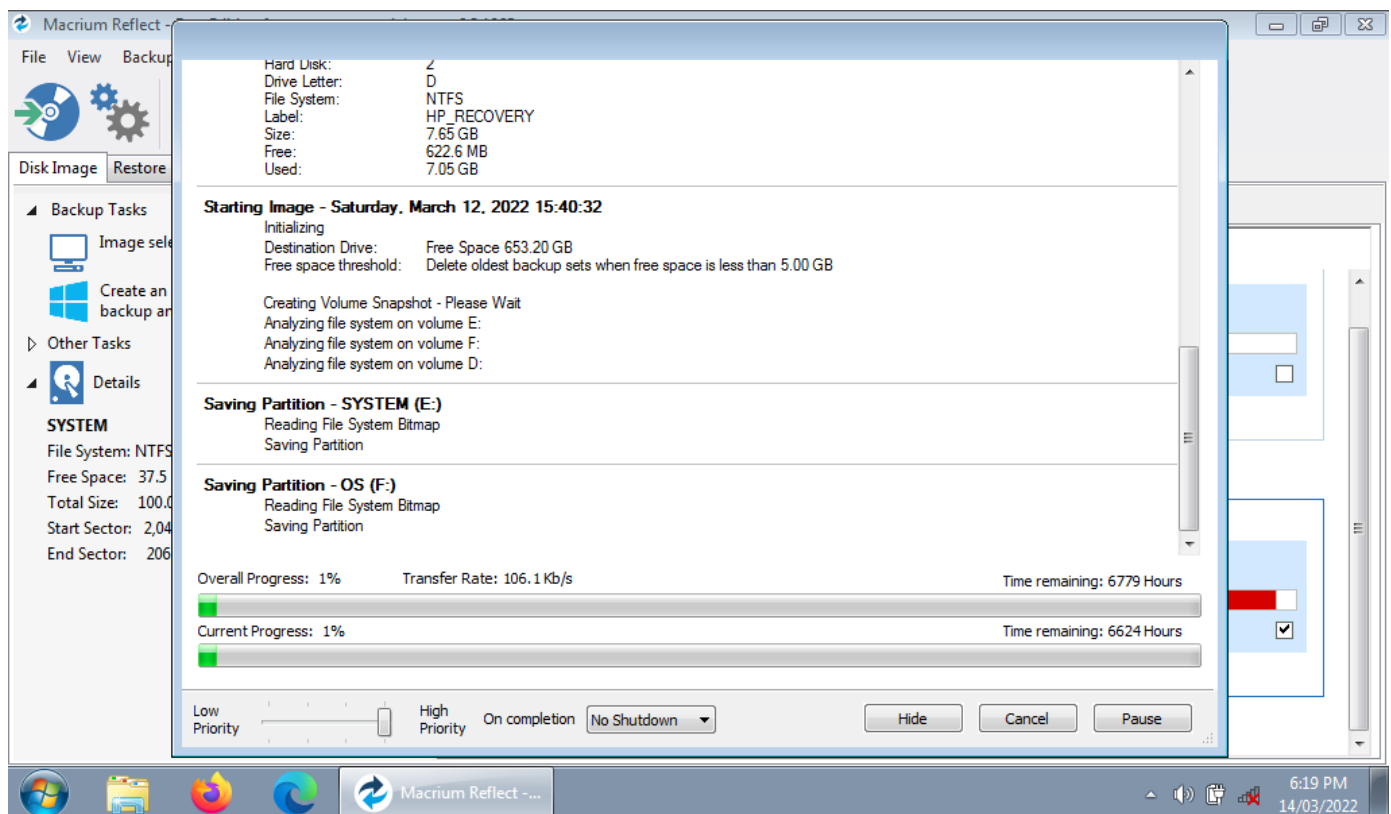
So I had a look, an identical PC to the slides machine, and it also was dead (the monitor seemed ok). So now the casualty list was at three, not bad for a day when I wasn't looking for trouble.

Back home, I soon had the Dell back up and running, it used the good old CR2032 button cell to keep the clock running and setup parameters safe. The reason I could not get it going was there were a few options for configuring the SATA interface that the hard drives uses. This Dell defaults to 'AHCI', however the drive had been setup using a different option. A fairly common reason for a non boot. If I'd had more time at the church I could have sorted it out, however I simply ran out of time. I was surprised by the battery, usually one sees 2V or something like that (should be 3V) when they go flat, no, this one was at zero!

One down, two to go.

I pulled the hard drive from the slides machine, I could read it, but boy was it slow. I left it attached to another computer for a few days, and it only got to 70% before the PC crashed.

That computer was having issues with having that faulty drive on its SATA interface, it seemed to be upsetting the normal internal drives, so maybe that's why it crashed.



I then restarted it using a small atom laptop, with the drive connected via a USB adapter.

As you can see, no errors, but boy is the transfer speed low, normally I'd be expecting speeds up to a gigabit a second, however at this speed it's going to take the best part of a year to read it – not quite a practical situation. I restarted it more out of curiosity and to grab this picture.

On the other computer, using eSATA, it did peek up to a few hundred megabits a second, then bog back down to painfully slow, it probably would be all done in a few days, however with a few false starts (I didn't initially provide enough storage space for the image) the drive has further deteriorated, and fully imaging it now seems all but impossible.

Luckily I did find a quite old image that has turned out to be quite usable, just two shares not setup, not a biggie in anyone's language, so as they say 'were good to go'.

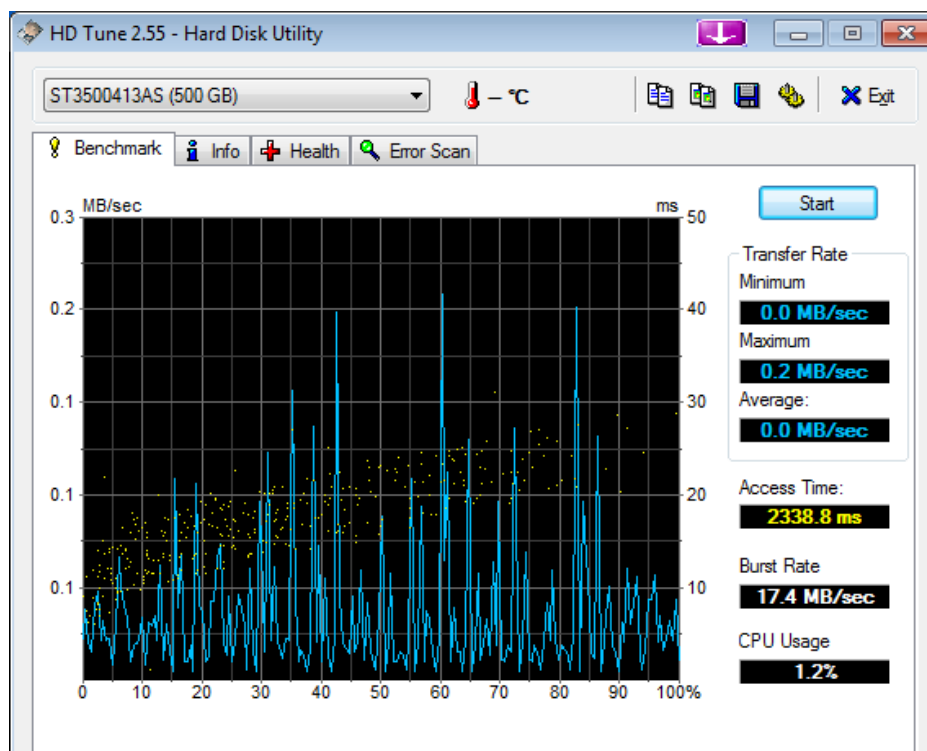
Now for the priests PC, I pulled its drive and apart from having to do a "chkdsk" at the insistence of 'Macrium reflect' I had no issues reading it, and also as a consequence of doing that 'check disk', the drive is now fully bootable. So I put it all back together and retuned it, advising him to get a new machine as soon as possible, as using an ancient Windows 7 PC on the internet was not the smartest of things to do. He was doing random web surfing etc., so he really needs a fully up to date machine, one with every possible update and patch applied.

I'm not as concerned with the machine used for slides, as that's all it does, no browsing, no email etc. etc. I've purposely hidden the browser to discourage anyone, after this I'm thinking of looking at its firewall and further locking it down – as in no HTTP, or HTTPS, ports 80 & 443, basically nuking the browser – I haven't done this before, however there are a few guides on the internet covering it.

With a temporary drive in place, and that year old image installed, we got through a regular weekend, streaming, recording & uploading mass video's all went well. I've just purchased a brand new WD blue 500 gig drive, so it'll be interesting to see if it boots faster etc.

One perennial problem with PowerPoint is sync between the slides & music, PowerPoint goes off to get a music player when it start any songs, I suspect any system delay in loading that software manifests itself as an offset between the slides & music, why on earth it doesn't load everything before actually starting playback is beyond me – that's Microsoft at its finest. So it'll be interesting to see if a SSD improves things in this department

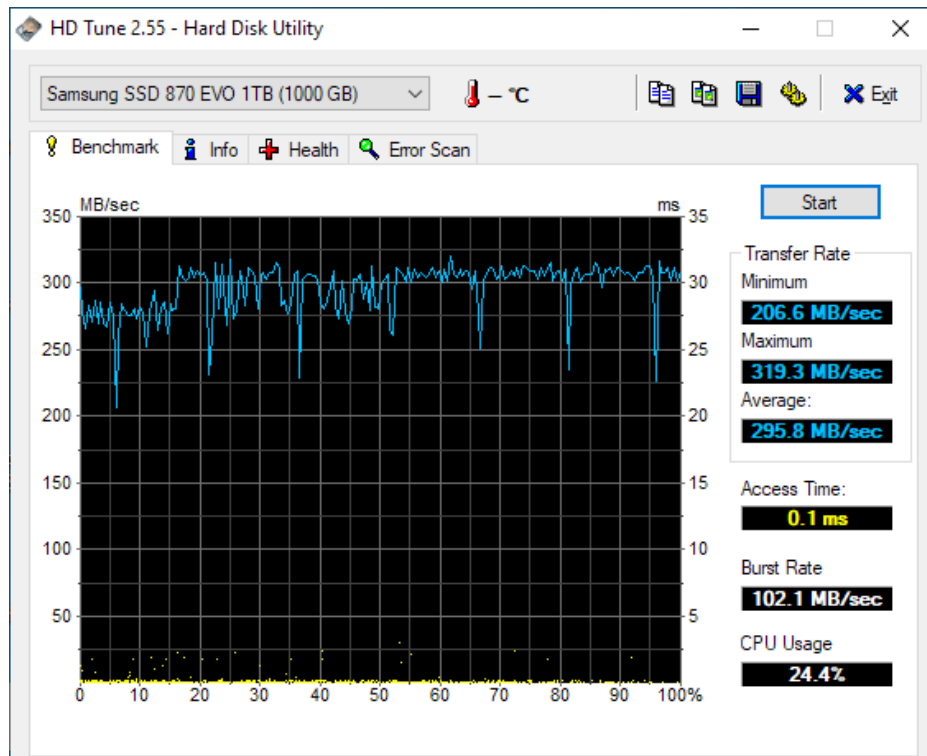
So what is going on with that drive? It's like it has to retry every read a few thousand times (as in the difference between 1gbps to 100kbps), why on earth is there no warnings that the drive has issues? Back in 'the good old DOS days', if you had issues reading a floppy disk, DOS would throw an error after a few attempts, saying "Abort, Retry, Ignore", you knew pretty much knew straight away that this disk, or maybe the drive was bad, and you had plenty of time to do something about it, However if the machine issues no warnings and just grinds to a halt, well then you better have a backup ready, or basically your screwed.



Years ago a new technology called 'SMART' – or 'Self-Monitoring, Analysis and Reporting Technology' came out, yes it's kind of in windows, but windows does not actively monitor it, your only option is to manually access it via the command prompt, or PowerShell, not exactly a user friendly way of doing things.

So I went looking on the internet and found this nice bit of code called 'HD Tune', and Yes they have a free version – for us tight arse amateurs....

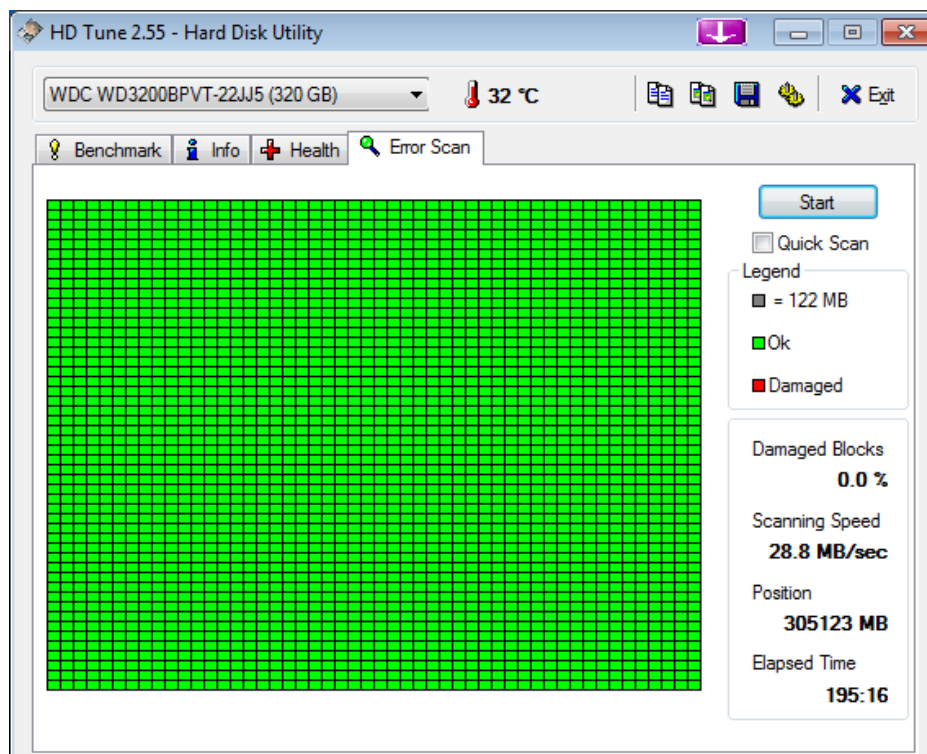
As you can see the test of that drive gives shocking results, the best bit I thought was the access time, 2338.8ms, or 2.3 Seconds, not milliseconds, but WHOLE SECONDS.



So I installed that software on my main PC, As you can see there are a few blips, which kind of indicates my Samsung SSD is starting to show some wear.

I had thought of buying a SSD to soup up another machine, but instead I think I'll replace this one, then pass it onto the other computer – it doesn't see much work, so a used SSD should be as good as any, I just want to see what improvements an SSD makes to Ubuntu Linux, as the boot drive does thrash about somewhat.

I am currently in the process of running this software on all of my machines, it's a pity there is no Linux version, and of course that leaves my Raspberry Pi's out as well.



Now back to that faulty drive, a very long 'Error Scan' found none, just try and retrieve your files!

So where does that leave Windows and the bad drive? – Well obviously the drive is headed for the bin, or rather the screwdriver. As for Windows, this just further highlights its weaknesses. Boy would I like an alternative, there is just nothing at this stage. If you have zero software and just want to browse the web, read emails, write a letter

etc. then Linux is great, on the other hand, if you have heaps of windows software – like the above, just added to my 'utility belt', then Linux kind of sucks. Yes it can run a limited range via 'Wine', but the experience can differ somewhat, often enough to break things.

So, grab yourself a good backup program, like 'Macrium Reflect' (there is a free version), and maybe a copy of 'HD Tune' to hopefully give yourself a heads up on what's around the corner.



What's In A Cord ?

If it is 550 paracord the answer is seven, seven strands of fine nylon braid in a sheath of coloured nylon. Paracord is designed to fasten parachutes to a harness and is all the little lines that run-up to the canopy.

However, it has 1000's of uses from camping to guy ropes on masts, flag poles and so on. There are lots of makers of paracord but if you need some 550 (Breaking strain in pounds so apx 250KG) you need to go to a reputable seller and pay a bit extra, one in Australia is Cams Cords (camscords.com.au) I am not endorsing the company they just stock a large range including Military spec.

As most of you would know when you buy MIL-Spec coax the braid and sheath is all better quality than the civilian stuff. Well, this applies to paracord as well. But how to tell you are getting a MIL-spec cord.

Well every manufacturer of MIL cord puts a tri colour thread through one of the internal strands and the colours ID the factory it was made in and that it conforms to the spec as put down by the US Govt, also all suppliers of MIL-Spec are in the US of A so as to ensure supply during wartime

The normal cord is also 550 pounds but is not certified but for most jobs, we need it for it is fine as it dries out quickly and being nylon it is rot proof and has UV stabilizers in it. It will eventually break down in the sun but not like that \$2 roll from bunnings...also I don't think you can buy 1000ft rolls (330mt) of cord there as well.

So the specs for the MIL stuff is

- 100% nylon
- 4mm diameter
- mildew resistant, will not rot
- lightweight and extremely strong
- certified breaking strain approx 250kgs

Here is what a typical coloured strand looks like in it..



Mark 'Pockets' VK3PKT

Recycle it



I suppose you've seen one of these, a moulded on plug, in this case on an old VGA computer monitor lead.

This one had been given a hard time by its previous owner, with several pins bent over.

Junk?, totally unrecoverable, nothing of value here I hear you say.

Well wrong, whilst the actual plug is a gonna, the moulded shell is not.



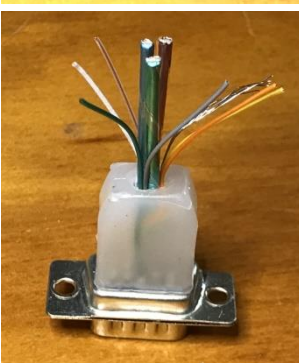
First, cut the lead off flush with the housing.



Then carefully dig out the metal plug, best to keep away from the very ends as these will tend to just bend up.

Not all survive, however I've had enough success, much better than more land fill.

Quite often the outer jacket of the original cable will stay in place, just leave it there, it may come in handy if the new lead is thinner, otherwise, its soft plastic and a hand drill will soon move it.



The dug out innards, into the bin they go, leaving just an empty plug shell ready for re-use.

Maybe add some hot melt glue.



Paul VK3TGX





alltrophies.com.au

Specialising in Corporate Awards Clubs and Schools

03 9762 4844
sales@alltrophies.com.au

ABN 69 089 590 590
71 Intrepid Street
Berwick VIC 3806

- Honour Boards
- Acrylic Awards
- Silverware
- Plaques
- Clocks & Barometers
- Medals & Badges
- Club Awards
- Engraving
- Corporate Awards
- Sport Awards
- Customised Awards
- Brass/Bronze
- Photo Plaques
- Commercial Engraving





The GGREC is an affiliated club of the WIA

WIA Affiliated Club

We also give Thanks to



For their generous support over the years



Club Information



Meetings 20:00hrs on third Friday of the month at the
Cranbourne Guide hall, Grant Street Cranbourne
Prac/Natter nights first Friday in the Peter Pavey Clubrooms Cranbourne 19:30hrs
Visitors are always welcome.

Office bearers

President	Bruno Tonizzo	VK3BFT	Web Master	Mark Clohesy	VK3PKT
Admin Sec	Miguel Vaca	VK3CPU	Magazine Editor	Paul Stubbs	VK3TGX
Treasurer	Klaus Illhardt	VK3IU	Property Officer	'committee'	
General 1	Bruce Williams	VK3BRW	Assoc. Secretary	Miguel Vaca	VK3CPU
General 2	Leigh Findlay	VK3FACB			

Call in Frequencies, Beacons and Repeaters

The Club Station VK3BJA operates from the Cranbourne Clubrooms.

6m Repeater Cranbourne VK3RDD, In 52.575 Out 53.575 CTCSS none

70cm Repeater Cranbourne VK3RGW, In 431.425MHz Out 438.425MHz CTCSS 91.5Hz

VK3RGW Repeater supports Remote Internet access (IRLP), Node 6794 **offline**.

70cm Repeater Seaview VK3RWD, In 431.575MHz Out 438.575MHz CTCSS 91.5Hz **'Testing'**

Simplex VHF - 145.450MHz FM, Simplex UHF - TBA

VK3RLP Beacons 1296.532MHz & 2403.532MHz (**currently offline**)

Membership Fee Schedule

Pensioner member rate \$40.00, Extra family member \$20.00

Standard member rate \$50.00, Junior member rate \$25.00

Fees can be paid by EFT to BSB 633000 - Account 146016746

- Always identify your EFT payments

- Membership fees are due by each April Annual General Meeting (AGM)

Magazine Articles to editor@ggrec.org.au Cut off, 10th of the month

All other Club correspondence to: secretary@ggrec.org.au

or via post : GGREC, 408 Old Sale Rd, Drouin West 3818

GGREC Web Site & Archive may be viewed at: www.ggrec.org.au

Website errors, contact web master: webmaster@ggrec.org.au

Facebook Page www.facebook.com/GippslandGate