EXCALIBUR 64/512 NEWS UPDATES

June 2026 issue.

Hi and welcome to the first issue for the 21st century. First and foremost, I hope that the time since our last issue in 1988 all has been going well. Perhaps now, is a good time to look back over the past 40 years and reflect.

Back in 1988 we were using AM-NETT bulletin board service (BBS) since then the world wide web, which acts like a large BBS, has become the go to place for information. It does not require a phone number and runs faster than 2400 baud. See at the end for world wide web pages that relate to the Excalibur 64.

In 2014 Robert from Sydney managed to get the Excally running on an IBM clone using first MESS then MAME. For most of us here there is no point but it does open up the Excalibur 64 experience for those not fortunate enough to own a machine. So perhaps IBM clone can be useful after all?

Big thanks to Alan Chickenman Laughton who uploaded many documents including schematics, newsletters and adverts from the mid to late eighties. There are even the ROMs and nice images of a bare board. Thanks Alan this has been a big help in getting version 6 of the board developed. But I did notice issue 2 of the newsletters is missing from the MSPP site. Looks like I may have found a copy. If true I'll share.

Speaking of sharing information Don McKenzie has images and electronic mail between Alan and Don. Plus some great images and other good info.

Current Projects

That's enough reminiscing now for projects that currently in flight.

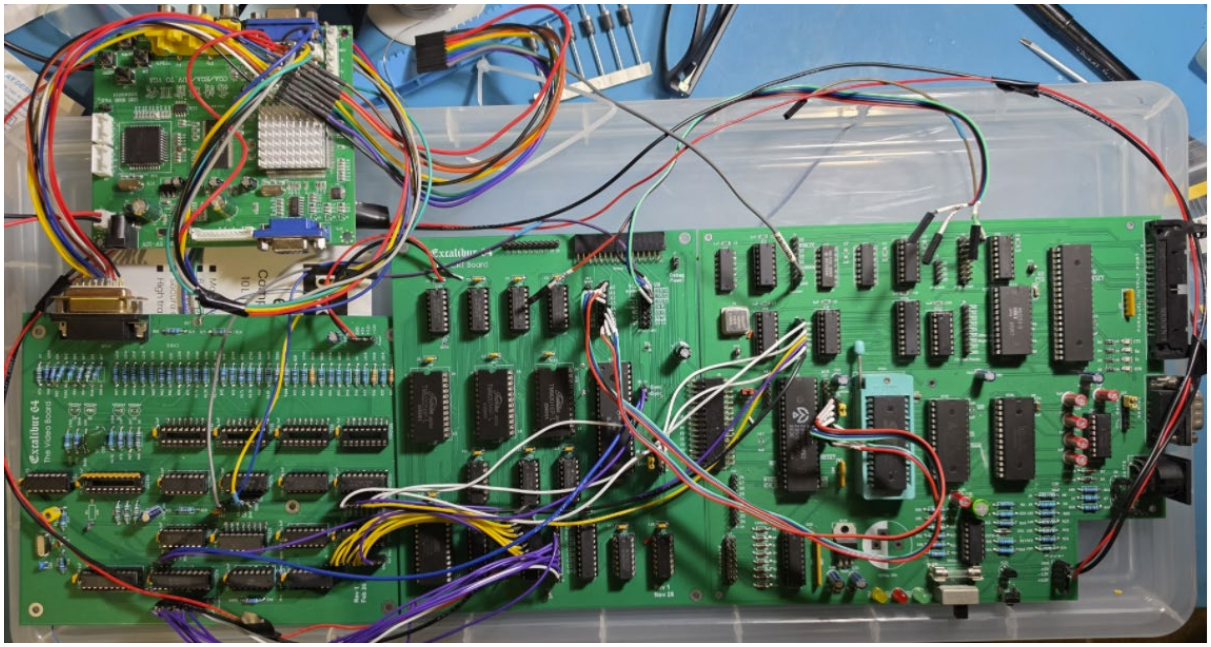
The Excalibur recreation AKA rev 6

This started in around June 2024. I was looking for a rebuild project like what has been done for the Microbee or the TEC-1 board but one that hadn't been done before. Trawling the Microbee MSPP site I found a large amount of documentation for this obscure Australian made computer. With such a short life span it felt like a bit of an underdog. And who doesn't like an underdog story?

What also made this such an attractive project was the newsletters and other documentation that was available. This gave the machine some providence.

Anyway since the last update there has not been too much progress I'm afraid. The board works except for the video. It does sync up fine but getting some funky patterns. Which may have been ok in the '70s but not for an '80s computer.

https://hackaday.io/project/205460-excalibur-64-the-recreation

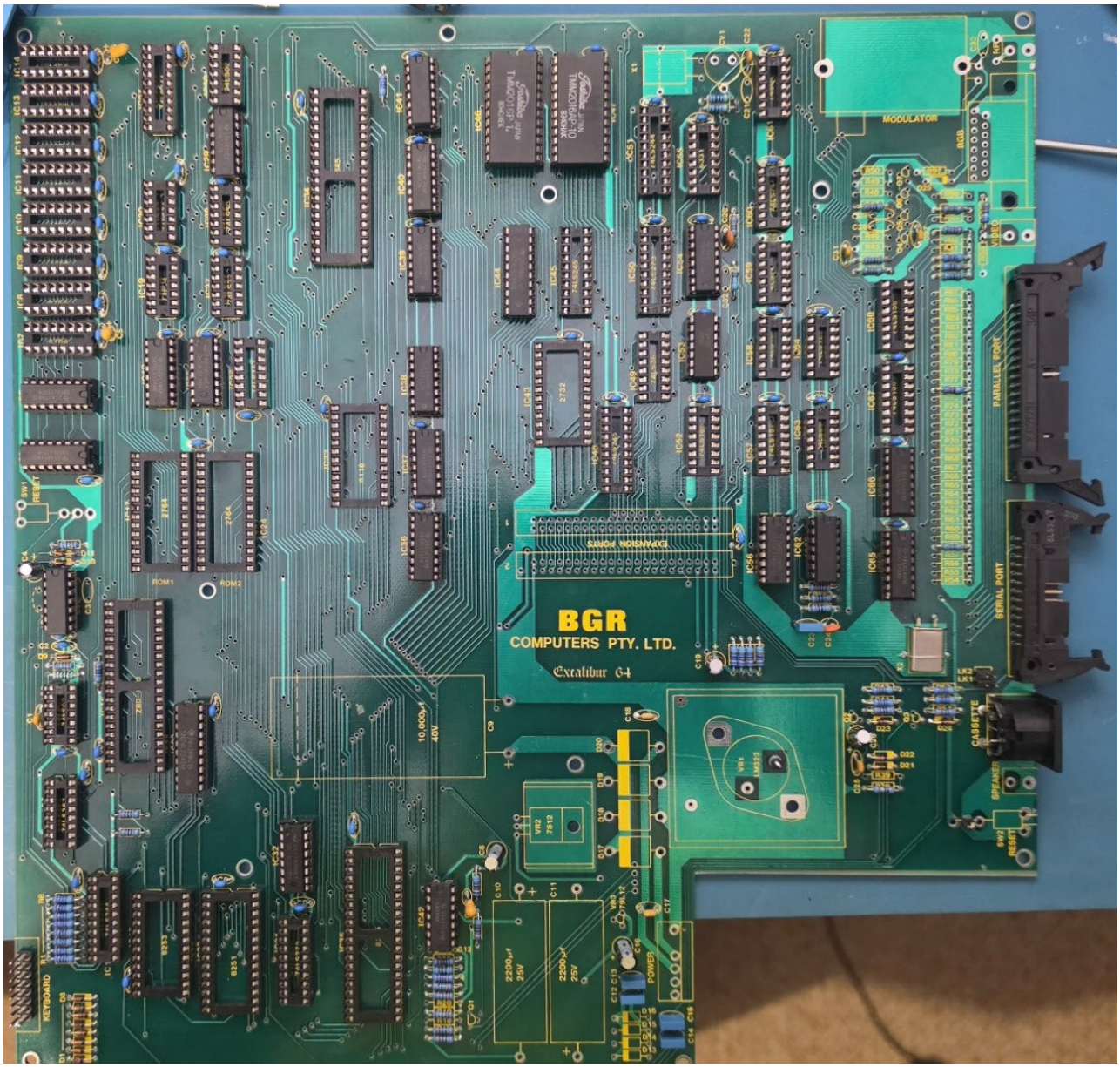


A new old build

Mike Greenhill answered my call for Excalibur parts on the Microbee MSPP forum and had in his possession was a new bare Excalibur 64 and keyboard PCB. He has kindly lent it to me so I can build it up then once working I can use it help work out the issues with the rev 6.

See image but mostly done. Just received the next batch of parts to get it up and running. Trying to keep it as original as possible so using LS chips but some of the special function and RAM are CMOS. So will have to see how that goes.

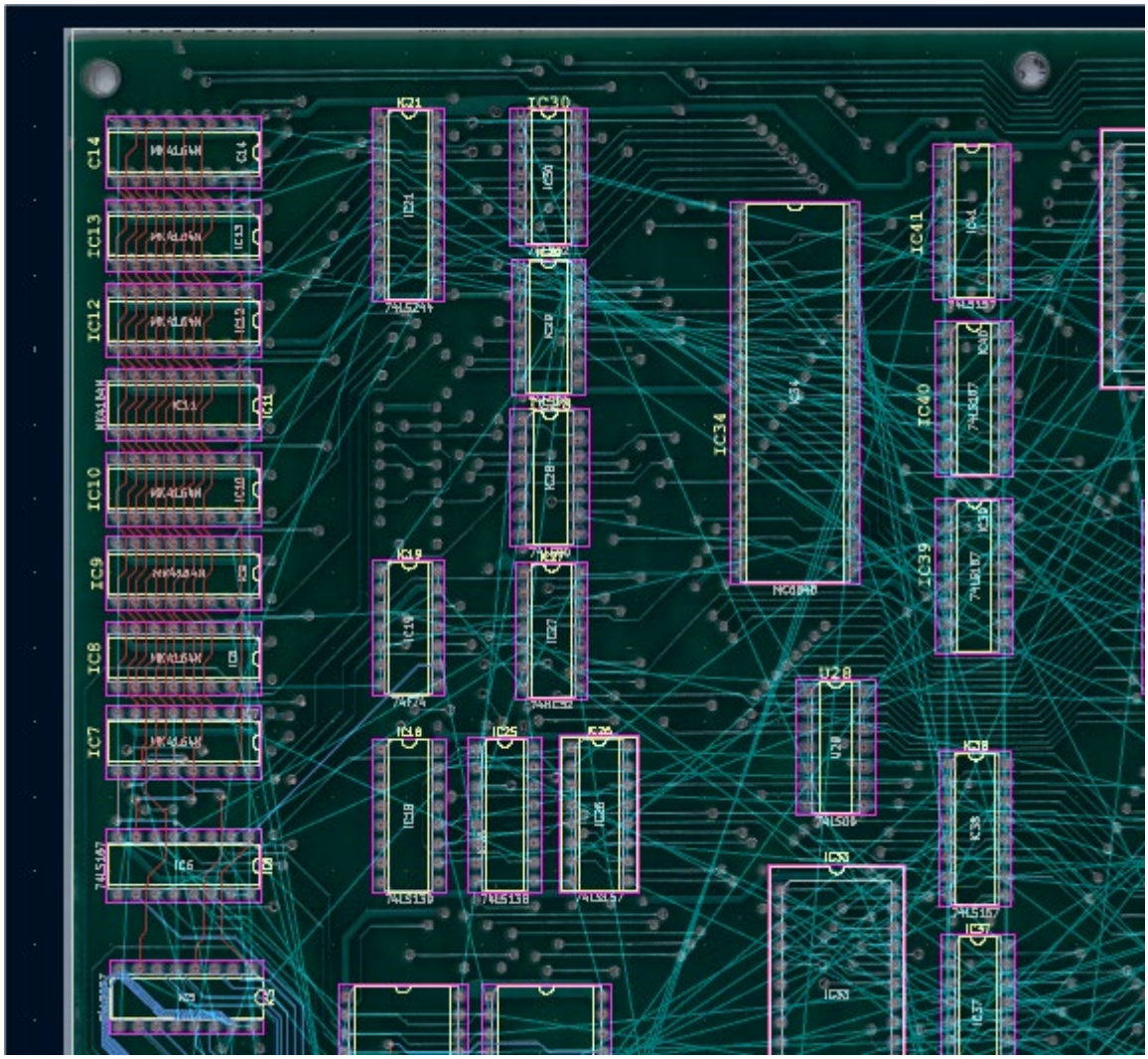
https://hackaday.io/project/205634-excalibur-64-a-new-build



PCB CLONING

Part of the original rev 6 build was to create the PCB exactly how rev 5 was designed. The images of the PCB on the MSPP repository were great but at a slight angle. Using programs like GIMP helped get the trapezoid feel out of it but still wasn't good enough so left it. But after Mike sent me his board I was able create high-res scans of the board and using a flatbed scanner. They are pretty square. The scanner was about 4mm too small for the board, or was the board 4mm too big? Can't remember now. And the board was not cut square so had fun trying to square it without a good reference. But anyway with these scans I could start the arduous task of manually tracing the tracks using Kicad.

Here is a sample of tracing, still have a few more rat-nests to sort out.

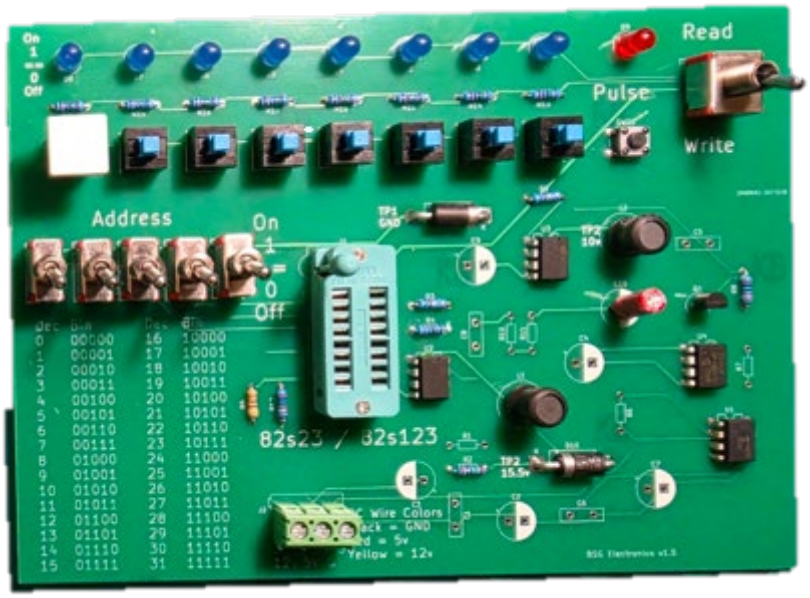


PROM Programmer

The PROM used for the colour palette is a 6331-1 which is one time programmable (OTP) and hard to get. For the rev 6 I just used a ATP16v10 and ported the config. This wouldn't be in keeping with the original build and has more pins so on an original PCB I would need to modify the board.

Instead of doing that Mike sourced the bare PCBs for programming the 6333-1 and some PROMs to go with it.

Here it is, nearly done. Manual programming of OTP IC's!! What could go wrong?



More hardware projects and updates will be featured in the next issue.

Software

In the last issue of Excalibur News Bob Green said he would review VLU for the ZCPR. It looks like that never happened so here is a quick overview of VLU.

VLU stands for Visual Library Utility (also referred to as the Video Library Utility). It is a software program designed specifically for the Z-System and ZCPR environments, which are advanced open-source replacements for the standard CP/M operating system's command processor in the 1980s.Instead of being a full operating system spin-off, VLU is an ecosystem-specific file management tool.

Key Functions of VLU

Library Management: It is primarily used to manage .LBR (library) files, which compress and bundle multiple individual files together to save disk space on vintage computer systems.

Interactive Interface: Unlike standard command-line tools of the era, VLU operates similarly to the visual ZFILER shell. It provides a full-screen, menu-driven layout to navigate inside archived libraries.

File Operations: Users leverage VLU to seamlessly look inside a library, view text files directly on the screen, compress/decompress entries, or extract individual files without needing manual terminal commands.

Relation to ZCPR and CP/M

While CP/M systems use a command-line tool called NULU (New Library Utility) to manage archives, VLU was built natively to integrate with ZCPR3 and later versions (like ZCPR34). It relies heavily on Z-System's capabilities, such as environmental descriptors and terminal configuration formats, to render its visual interface.

We will see if this can be run on the MAME emulator while the current batch of Excalibur’s are being produced. And full disclosure Gemini helped with some of the words in this section.

SUBS

It’s unfortunate to mention that many of you have not paid your club memberships fees for the past 39 years. Adjusting for inflation this comes $1,440.

Luckly for unpaid members that under Australian law we have a statute of limitations The statutory period to recover simple contract debts is 6 years.

This equates to $221.52 each, please pay as soon as possible and remember anyone can join the Excalibur Users Group but no one can ever leave.

QUESTIONS FROM MEMBERS

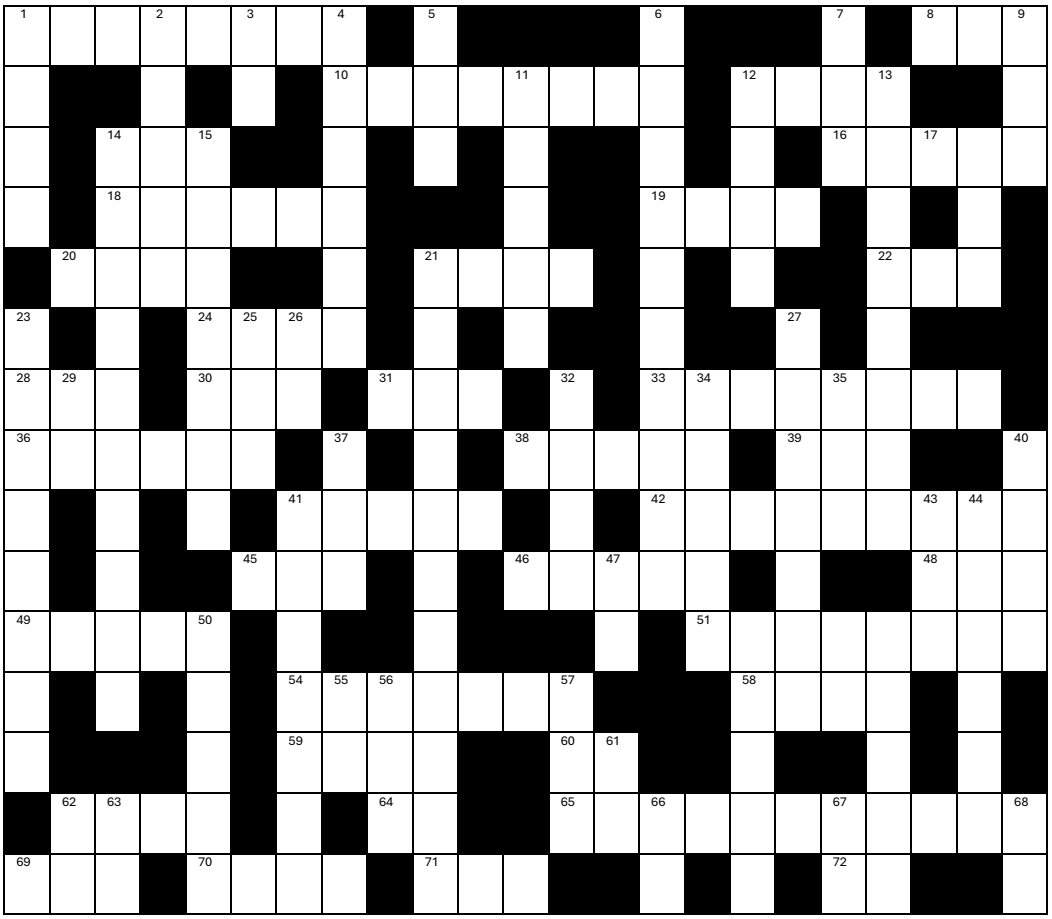
1. There was a mention a yearbook in the last newsletter. Does anyone have a copy? And was there just the one yearbook?
2. Also on the scrounge for information on the AM-NET database. Would anyone happen to have downloaded an image of this system back in the day? Or remember what sort of information it contained?

NEXT ISSUE

As mentioned, there are more hardware projects to present, including some recently acquired Excalibur hardware. And in software we hope to include a how-to for setting up the Excalibur 64 emulator on an IBM clone.

FOOTNOTE

Did anyone finish the crossword in 1988? If not, you have a second chance.



ACROSS

1 Data entry device
8 Our current President
10 What is an ?OV ERROR
12 Fashionable
14 Closest competitor to the Scally
16 Groups of bits
18 Not in a set order
19 Prefix meaning 10 to the power 12
20 End Greek letter
21 Common shield
22 Z80 pin 16
24 What you do when your system dies
28 Negative Acknowledge CHRS (21)
30 Basic command on Z80 instruction

ACROSS (Cont…)

31 Monkey
33 My modem design
36 Steam, mist etc
38 Life juice
39 Poem, short story
41 Stretch out, extend
42 Device that reads magnetic media
45 Unit of sound intensity
46 LATIN for I SEE, starts at IC 34
48 Organisation of COMM stations
49 Major unit in a stereo system
51 BASIC command in FOR-NEXT loops
53 You do this to make P.C.B.s
54 RAM that needs constant refreshes
58 Name suggested for K/L in issue 2
59 Small symbol
60 Mathematical constant
62 Prefix meaning 10 to the power 6
64 Personal computer
65 Main computer board
69 From a BATTERY unless FREE RANGE
70 Type of antenna
71 Electro motive force
72 Logical operand

DOWN

1 Prefix meaning 10 to the power 3
2 Cry, whinge
3 Do
4 Don McKenzie's DEBUGGER
5 First COMMODORE personal computer
6 Newer type of power supply
7 I need one when I eat
9 Connector with a group of signals
11 Unit of capacitance
12 Old magnetic memory
13 There are 80 on our 5 1/4" disks
14 A temporary stop for debugging
15 Inspire with love, adore, idolise
17 FILENAME.xxx
21 Measure of capacitor size
23 A 74LS04 is one
25 Yours and mine
26 @
27 Usually seen after loud bang

DOWN (Cont..)

29 Penlight battery
32 Very large scale integration
34 Knuckle-head, Uhh Dear (OK Kylie)
35 Uneven
37 Unit of sound intensity
40 Girls name
41 One of the 3 Rs
43 Z80 pin 16
44 JUMP point that we can intercept
47 Direct current
50 Solenoid
52 Position in which data is placed
53 ?/0, ?0V, ?NF, ?OD etc
55 Initials for a common comp. mag.
56 Null Z80 instruction
57 Control program for microcomputer
61 One of Jupiter's moons
62 Our first President's initials
63 For example
66 BASIC command in FOR-NEXT loops
67 This smells bad.
68 Direct current

In the eighties, we didn't have cloud storage. We had a shoebox filled with cassette tapes and a prayer

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