

V41

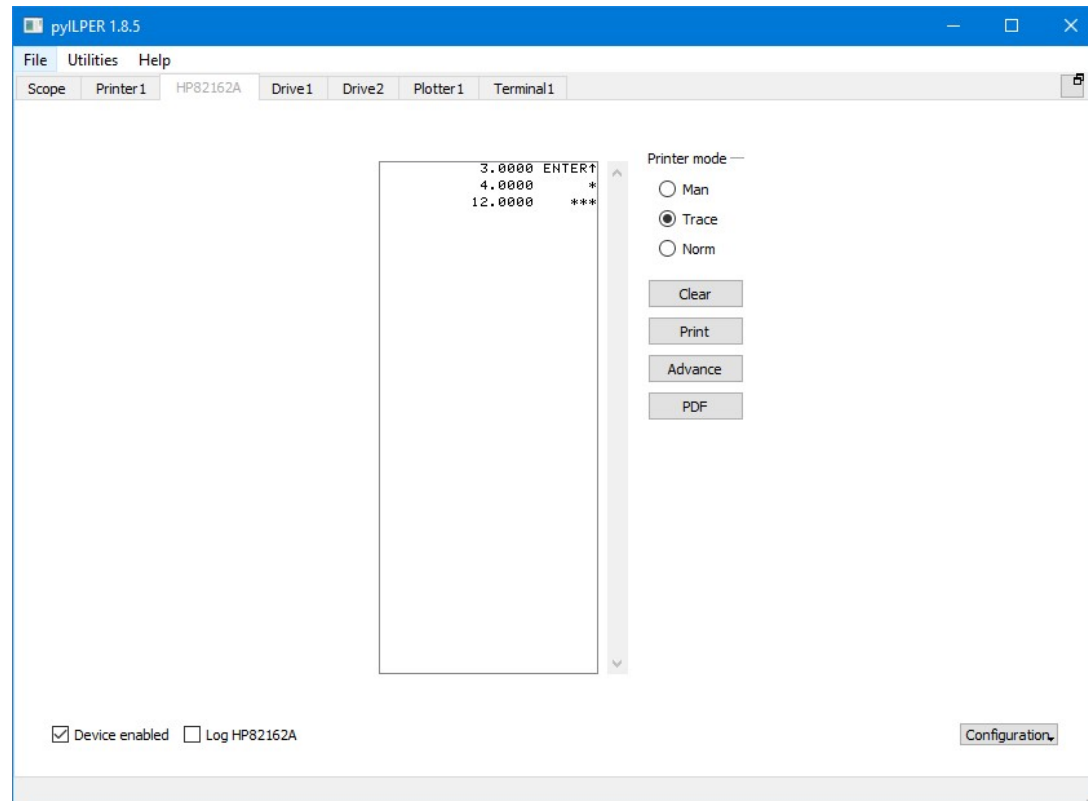
The Windows HP-41 Emulator

A dream become truth (Part 2).












V41 – Overview

- V41 is an emulator for emulating the HP41 hardware
- Written by Warren Furlow at hp41.org and actually maintained by me
- Native Windows program tested on Win98SE, WinXP SP3, Win7 x86/x64 and Win10 x64
- Supporting many modules over MOD files
- Import and Export of FOCAL Programs over Get/Put User Code menu entries
- Supporting HP-82160A HP-IL Module over Virtual HP-IL

V41 – The Windows HP-41 Emulator



V41 – Binary Size

 V41.exe	24.10.2022 18:48	Anwendung	252 KB
 V41R8E.exe	20.02.2012 21:54	Anwendung	164 KB
 V41R9.exe	23.10.2018 21:52	Anwendung	180 KB
 V41R9A.exe	29.01.2019 21:43	Anwendung	184 KB
 V41R9B.exe	26.05.2019 23:14	Anwendung	216 KB
 V41R9C.exe	06.08.2019 20:17	Anwendung	216 KB
 V41R9D.exe	24.03.2020 23:23	Anwendung	216 KB
 V41R9E.exe	19.01.2021 00:30	Anwendung	220 KB
 V41R9F.exe	23.03.2021 00:52	Anwendung	224 KB
 V41R9G.exe	16.11.2021 19:36	Anwendung	236 KB
 V41R9H.exe	31.05.2022 19:20	Anwendung	244 KB

V41 – The Windows HP-41 Emulator

RELEASE 9 (10/22/2018)

When presenting Release 9 at the Allschwil Meeting 2018 I promised further work on the HP-IL implementation, mainly:

- Adding Auto IDY support for HP-82162A key support
- Adding Device Mode implementation for the SCOPE command inside the HP-IL Development Module 00041-15043

The full list of changes can be found in the Help.txt file at the end of the English section.

V41 – Highlights R9A

RELEASE 9A (01/29/2019)

- Added AUTO IDY support to the HP-IL simulation (disabled by default)
- No directory limitations for .LOD files any more
- Fixed too large display font issue on recent OS
- Trace log file now show the actual content of the timer module registers
CLK_A, CLK_B and INTV_CNT

V41 – Highlights R9B

RELEASE 9B (05/26/2019)

- Rewrote parts of Virtual HP-IL interface for the [SCOPE] mode of the HP-IL Development Module
- The controller timeouts for the HP-IL frames are now given by the NUT CPU instruction cycles and not by the Virtual HP-IL simulation any more
- Added 2-key rollover possibility for keyboard usage
- Added last used .LOD file loading instead of default one and added MRU list
- Added "Reset Calculator" menu item setting the PC to 0
- Fixed showing the '@' character when using the TTF font on recent OS
- Fixed Breakpoints global breakpoint name search
- Updated icon file from Peter Janssen

V41 – Highlights R9C/D

RELEASE 9C (08/06/2019)

- Fixed startup on PC without prior session information

RELEASE 9D (03/24/2020)

- Removed disconnect and restart of the Virtual HP-IL server at User Code loading
- Fixed incomplete hardware register reset at File/New, File/Open and File/Recent File selection
- Fixed HP-IL coldstart and a HP-IL endless loop with no loop devices

V41 – Highlights R9E/F

RELEASE 9E (01/19/2021)

- Added support for the W&W RAMBOX module
- Fixed bugs in HEPAX module implementation

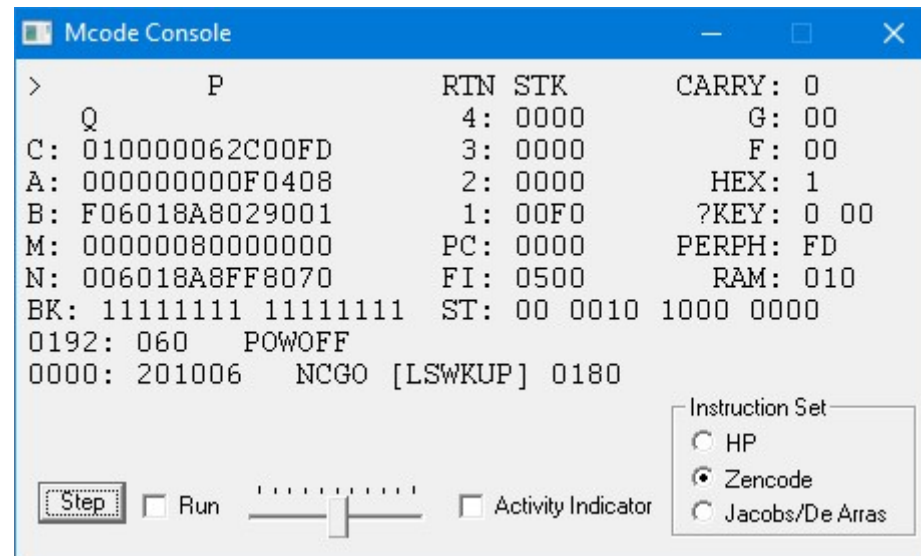
RELEASE 9F (03/23/2021)

- Added XLarge background image mode
- Fixed "Get User Code...", for proper import of HP42 FOCAL programs the jump offsets of GTO and XEQ must be set to zero to force a recalculation of these offsets at program runtime
- On capable OS changed arrow to hand cursor over a calculator button

V41 – Highlights R9G

RELEASE 9G (11/16/2021)

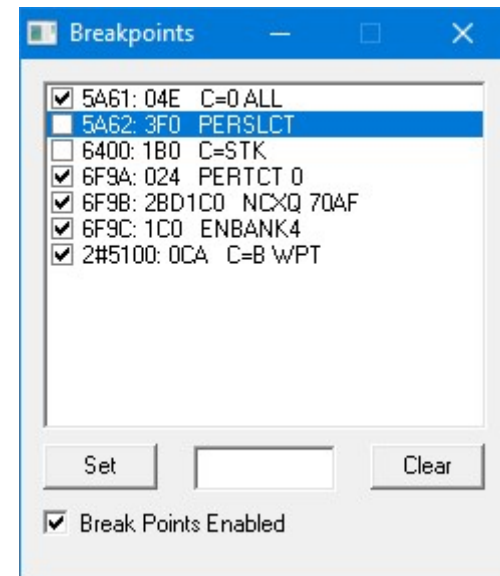
- Changed Mcode Console register layout to get more room for improved bank switcher settings output, and added some CPU register modification over the context menu



V41 – Highlights R9G

RELEASE 9G (11/16/2021)

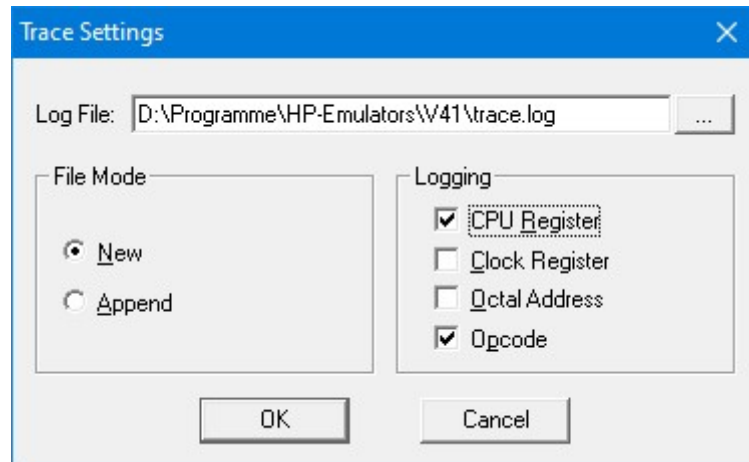
- Changed Breakpoints dialog, changed address list box from single to extended type, added checkbox to enable/disable each breakpoint separately and added bank# in breakpoint handling
- Added breakpoint loading/saving in .LOD file



V41 – Highlights R9G

RELEASE 9G (11/16/2021)

- Added settings dialog for extended Trace options



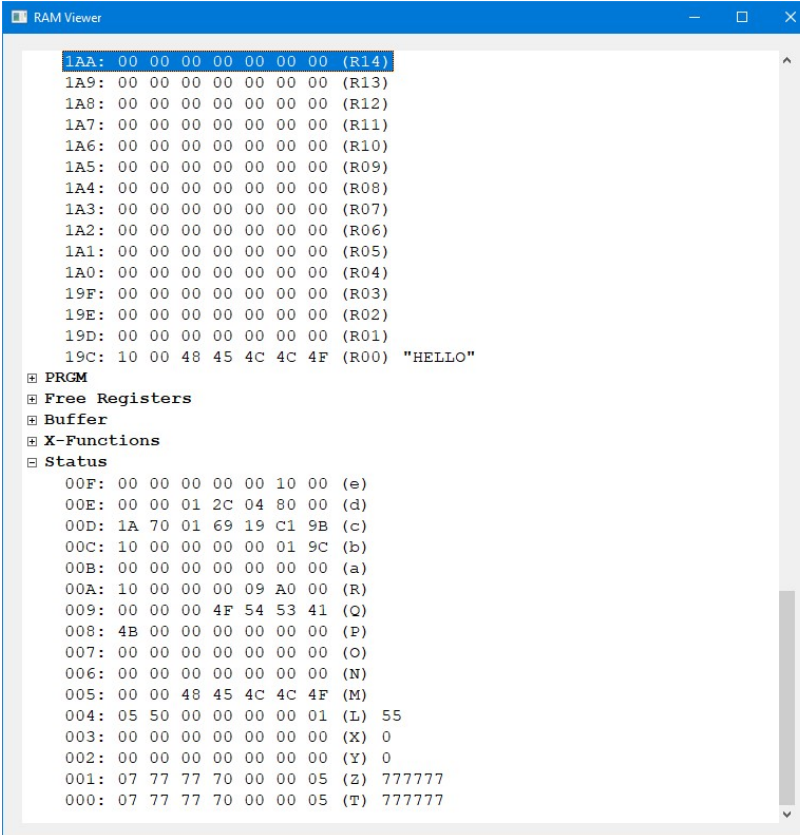
V41 – Highlights R9H

RELEASE 9H (05/31/2022)

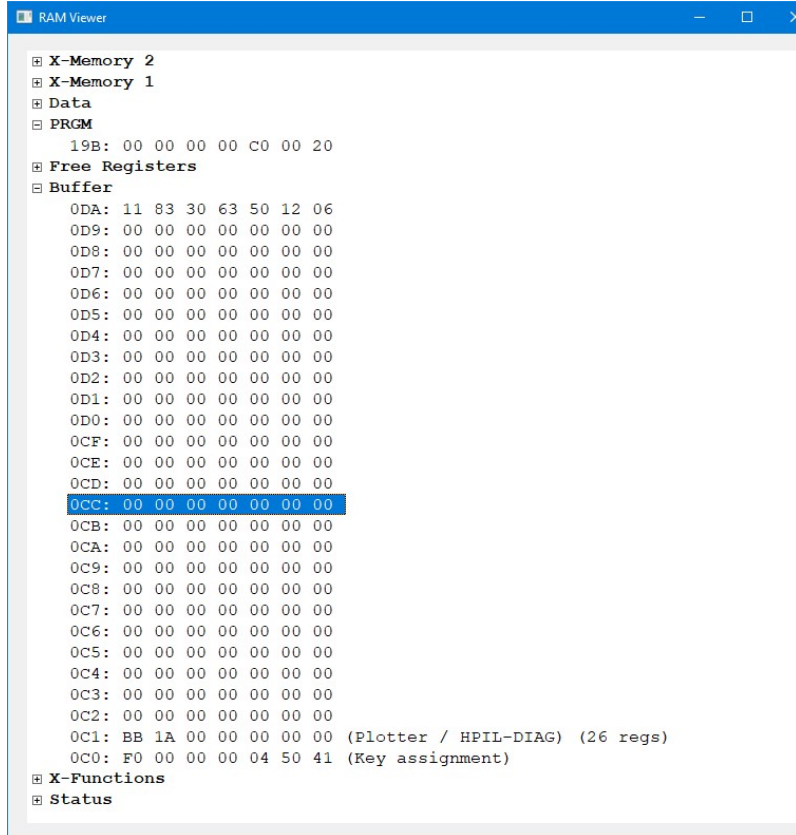
- Added MOD2 file format support
- Fixed "Get User Code...", find bottom of available memory was wrong for buffers not terminated with 0xf0 in byte 6

V41 – Highlights R9H

- Added "RAM Viewer..." dialog



```
RAM Viewer
1AA: 00 00 00 00 00 00 00 (R14)
1A9: 00 00 00 00 00 00 00 (R13)
1A8: 00 00 00 00 00 00 00 (R12)
1A7: 00 00 00 00 00 00 00 (R11)
1A6: 00 00 00 00 00 00 00 (R10)
1A5: 00 00 00 00 00 00 00 (R09)
1A4: 00 00 00 00 00 00 00 (R08)
1A3: 00 00 00 00 00 00 00 (R07)
1A2: 00 00 00 00 00 00 00 (R06)
1A1: 00 00 00 00 00 00 00 (R05)
1A0: 00 00 00 00 00 00 00 (R04)
19F: 00 00 00 00 00 00 00 (R03)
19E: 00 00 00 00 00 00 00 (R02)
19D: 00 00 00 00 00 00 00 (R01)
19C: 10 00 48 45 4C 4C 4F (R00) "HELLO"
PRGM
Free Registers
Buffer
X-Functions
Status
00F: 00 00 00 00 00 10 00 (e)
00E: 00 00 01 2C 04 80 00 (d)
00D: 1A 70 01 69 19 C1 9B (c)
00C: 10 00 00 00 00 01 9C (b)
00B: 00 00 00 00 00 00 00 (a)
00A: 10 00 00 00 09 A0 00 (R)
009: 00 00 00 4F 54 53 41 (Q)
008: 4B 00 00 00 00 00 00 (P)
007: 00 00 00 00 00 00 00 (O)
006: 00 00 00 00 00 00 00 (N)
005: 00 00 48 45 4C 4C 4F (M)
004: 05 50 00 00 00 00 01 (L) 55
003: 00 00 00 00 00 00 00 (X) 0
002: 00 00 00 00 00 00 00 (Y) 0
001: 07 77 77 70 00 00 05 (Z) 777777
000: 07 77 77 70 00 00 05 (T) 777777
```

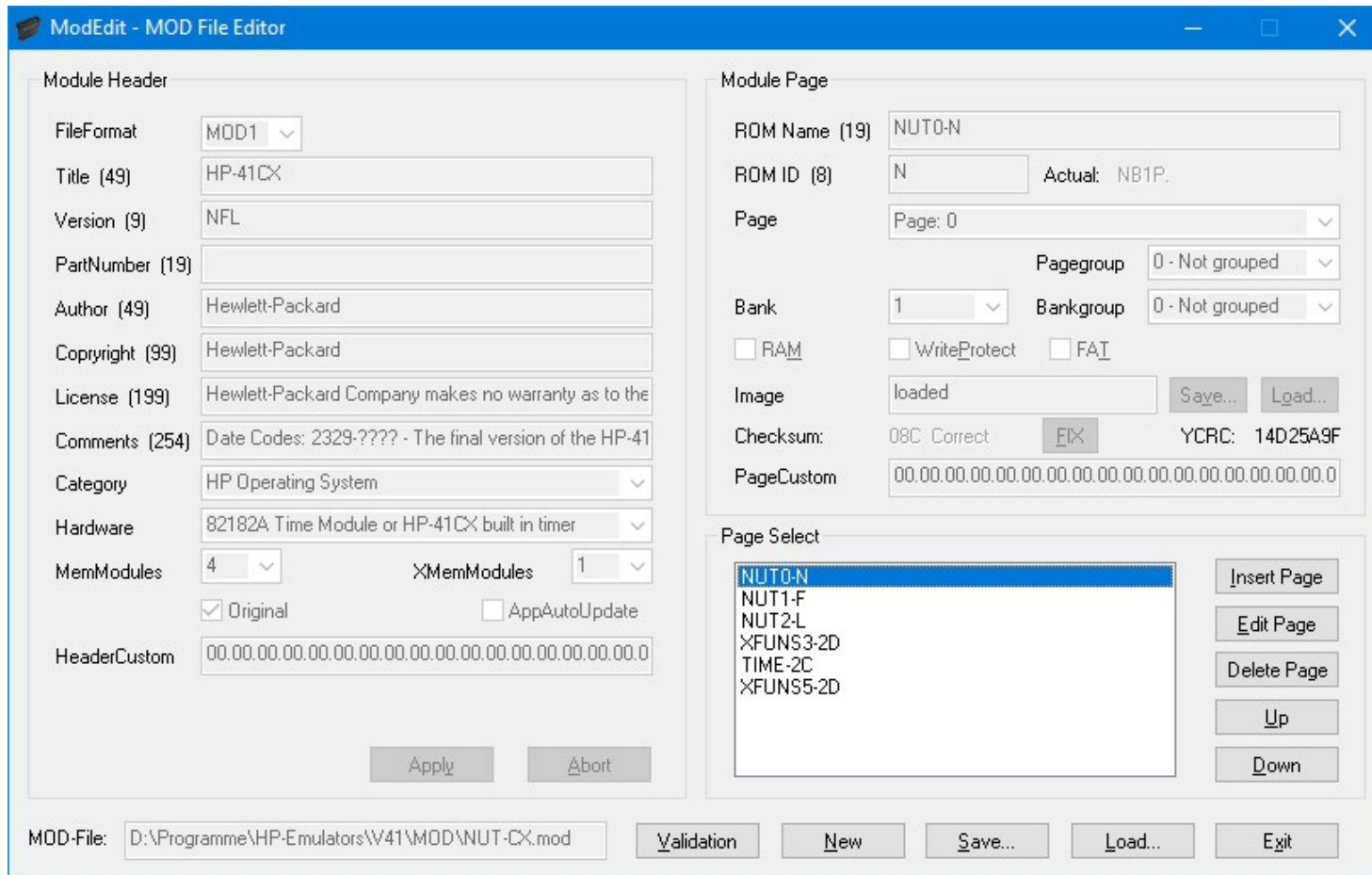


```
RAM Viewer
X-Memory 2
X-Memory 1
Data
PRGM
19B: 00 00 00 00 00 C0 00 20
Free Registers
Buffer
0DA: 11 83 30 63 50 12 06
0D9: 00 00 00 00 00 00 00
0D8: 00 00 00 00 00 00 00
0D7: 00 00 00 00 00 00 00
0D6: 00 00 00 00 00 00 00
0D5: 00 00 00 00 00 00 00
0D4: 00 00 00 00 00 00 00
0D3: 00 00 00 00 00 00 00
0D2: 00 00 00 00 00 00 00
0D1: 00 00 00 00 00 00 00
0D0: 00 00 00 00 00 00 00
0CF: 00 00 00 00 00 00 00
0CE: 00 00 00 00 00 00 00
0CD: 00 00 00 00 00 00 00
0CC: 00 00 00 00 00 00 00
0CB: 00 00 00 00 00 00 00
0CA: 00 00 00 00 00 00 00
0C9: 00 00 00 00 00 00 00
0C8: 00 00 00 00 00 00 00
0C7: 00 00 00 00 00 00 00
0C6: 00 00 00 00 00 00 00
0C5: 00 00 00 00 00 00 00
0C4: 00 00 00 00 00 00 00
0C3: 00 00 00 00 00 00 00
0C2: 00 00 00 00 00 00 00
0C1: BB 1A 00 00 00 00 00 (Plotter / HPIL-DIAG) (26 regs)
0C0: F0 00 00 00 04 50 41 (Key assignment)
X-Functions
Status
```

ModEdit

A MOD1/MOD2 File Editor.

ModEdit – MOD File Editor



V41 – The Windows HP-41 Emulator

Where to get?

<https://hp.giesselink.com/v41.htm>

<http://www.hp41.org>

Thanks for your attention, any questions?