

# A Long and Winding Road

Current Status of the Project *WP 43S*

# Background Information

- “A spectre is haunting Europe — the spectre of ‘43’.”
- Since 2003 at least, the number 43 was used for dreaming of a future “Super-42S” scientific calculator.
- Imagination lead to several Vapourware® designs published on the forum of the MoHPC.
- The whole idea suffered from the lack of a suitable platform. “CETERVM CENSEO: HP, launch a 43S!”
- With the launch of the *HP-20b*, repurposing a commercial calculator became possible.

# 2008 – 2011ff: *WP 34S + 31S*



# Why the *WP 34S* Is not Enough

- The *WP 34S* encompasses and surpasses the function sets of *HP-42S*, *HP-16C*, and *HP-32SII*.
- BUT the LCD of the *HP-20b / 30b* is inferior to the one of *HP-42S* by far:
  - ➔ no softkeys possible, limited menu display,
  - ➔ limited dual-line display,
  - ➔ limited text output.
- And *HP* stopped production of the *20b* & *30b*:
  - ➔ limited amount of donors / parents.

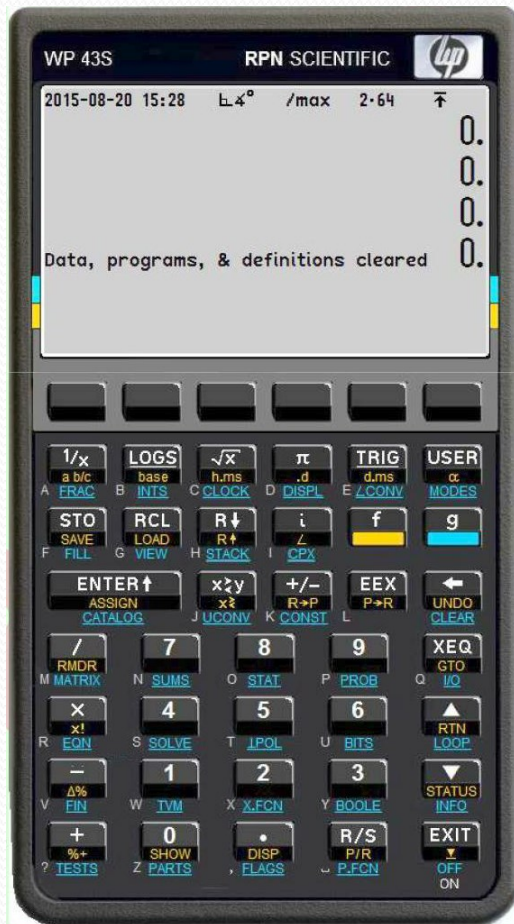
# What Do We Want for a *WP 43S*?

- At least *WP 34S* functionality
- full pocketability (i.e. no significantly larger size than the *HP-42S*)

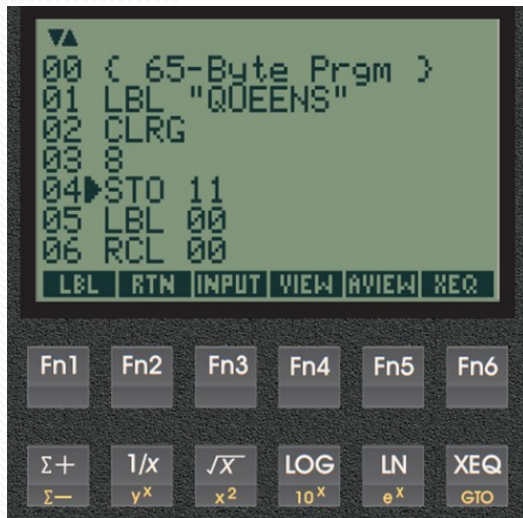
PLUS

- state of the art display
- softkeys
- standard USB interface
- real keys (no stickers) and lasting hardware supply
- (full user configurability etc.)

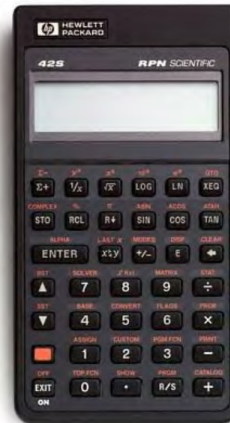
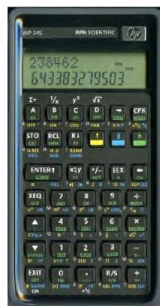
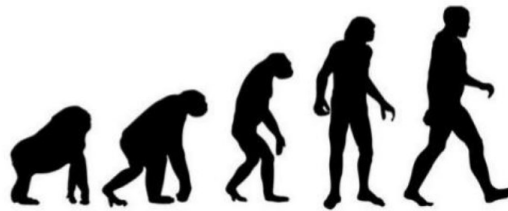
# 2012 – 2015: Hope for Reptiles



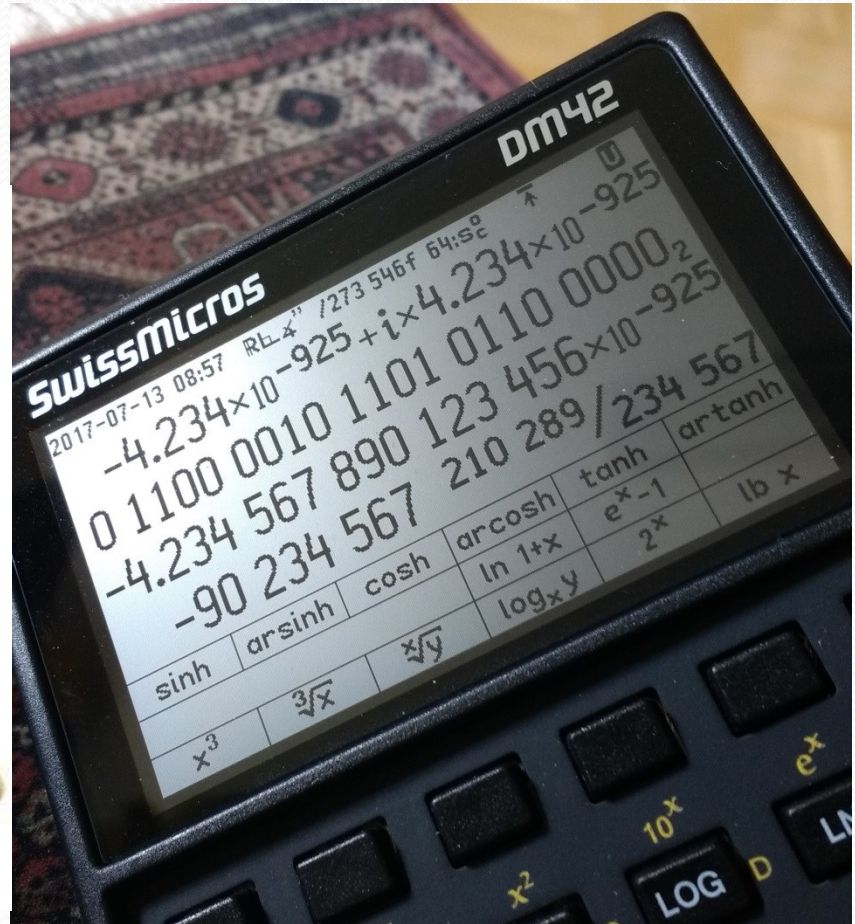
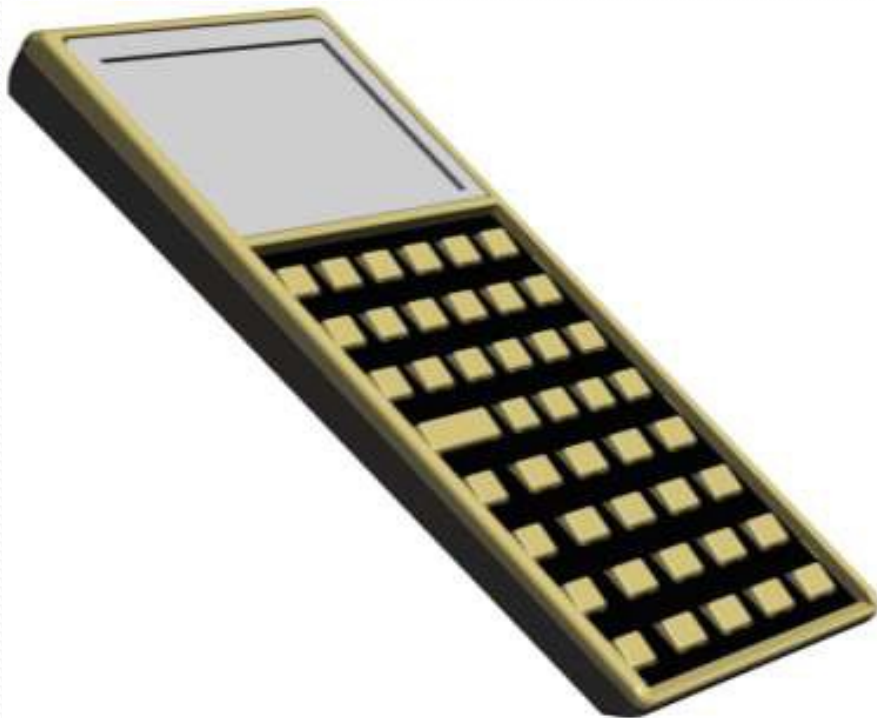
# 2015-09: Final Call at HHC



We Want Our 43S!!



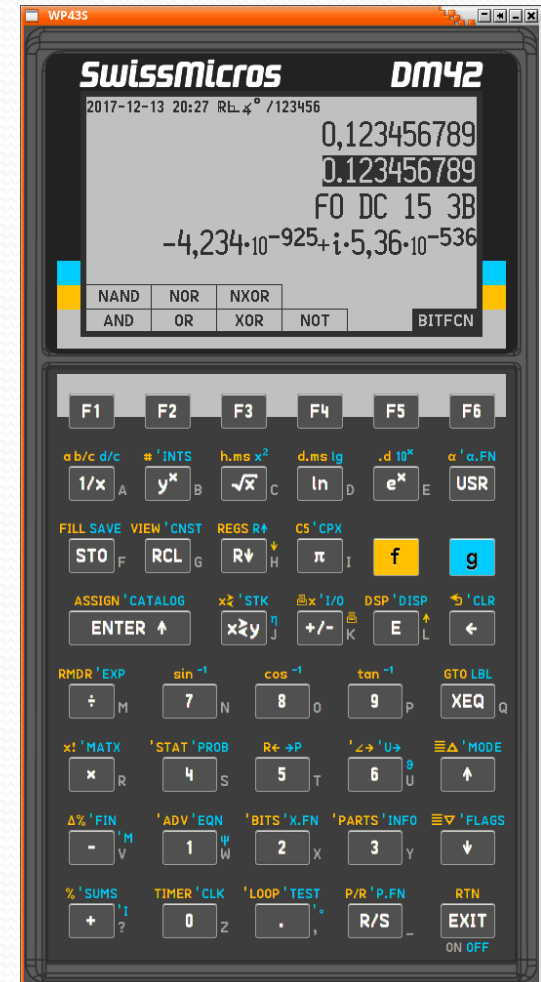
# 2016: Dawn of *DM42*



# 2016 - 2018: Layouting for *WP 43S*



# 2017: Finally Gaining a SW Guy



**Swissmicros**

2018-10-21 12:26 C@4° /max 64:2

25.  
-3.703 703 703 703 704×10<sup>-1</sup>  
-2.962 962 962 962 963  
850.744 246 561 204 8 4 51.894 840 967 238 77°

DENMAX	DENANY	DENFAC	DENFIX	SSIZE4	SSIZE8
FAST	SLOW	RM	QUIET	REALRE	CPXRES
DEG	RAD	GRAD	MULπ	RECT	POLAR

**Keypad Functions:**

- Row 1:  $1/x$ ,  $y^x$ ,  $\sqrt{x}$ ,  $\ln$ ,  $e^x$ ,  $\alpha$   $\alpha.FN$
- Row 2:  $ASN$ ,  $SAVE$ ,  $VIEW$ ,  $CNST$ ,  $R\uparrow$   $RBR$ ,  $CC$   $CPX$ ,  $f$ ,  $g$
- Row 3:  $STO$ ,  $RCL$ ,  $R\downarrow$ ,  $TRG$ ,  $\Delta\%$   $\%$ ,  $DSP$   $DISP$ ,  $\leftarrow$   $CLR$
- Row 4:  $CATALOG$   $FILL$ ,  $x\rightarrow y$   $STK$ ,  $+/-$ ,  $E$ ,  $\rightarrow$
- Row 5:  $RMDR$   $\pi$ ,  $/$ ,  $7$ ,  $8$ ,  $9$ ,  $GTO$   $LBL$
- Row 6:  $MATX$   $x!$ ,  $PROB$   $STAT$ ,  $R\leftarrow$   $\rightarrow P$ ,  $\leftrightarrow$   $U\rightarrow$ ,  $\equiv \Delta$   $MODE$
- Row 7:  $\times$ ,  $4$ ,  $5$ ,  $6$ ,  $\uparrow$
- Row 8:  $ADV$   $EQN$ ,  $BITS$   $INTS$ ,  $FIN$   $X.FN$ ,  $TIMER$   $CLK$ ,  $\equiv \nabla$   $FLAGS$
- Row 9:  $-$ ,  $1$ ,  $2$ ,  $3$ ,  $\downarrow$
- Row 10:  $\boxtimes$   $I/O$ ,  $LOOP$   $TEST$ ,  $PARTS$   $INFO$ ,  $P/R$   $P.FN$ ,  $RTN$
- Row 11:  $+$ ,  $0$ ,  $.$ ,  $R/S$ ,  $EXIT$
- Bottom:  $ON$   $OFF$

# 2018, 2019, ...: Next Steps

- Clarifying hardware constraints and opportunities
- Team-internal testing and debugging
- Releasing the simulator for the community
- Community testing
- Updating the simulator
- Software transfer to the target system
- Re-flashing the target system
- Producing the dedicated parts
- Releasing the ***WP 43S***