

# DMConnect

*For the DM10, DM11, DM12, DM15, DM16 and DM41*



SwissMicros

# *Makes life easier*

- *I/O to back data up and retrieve data over USB*
- *Firmware updates*
- *Writing programs*
- *Storage register  $\longleftrightarrow$  spreadsheet*
- *Model-specific features*
  - *Matrices*
  - *Alarms*
  - *Etc...*

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# *Makes life easier*

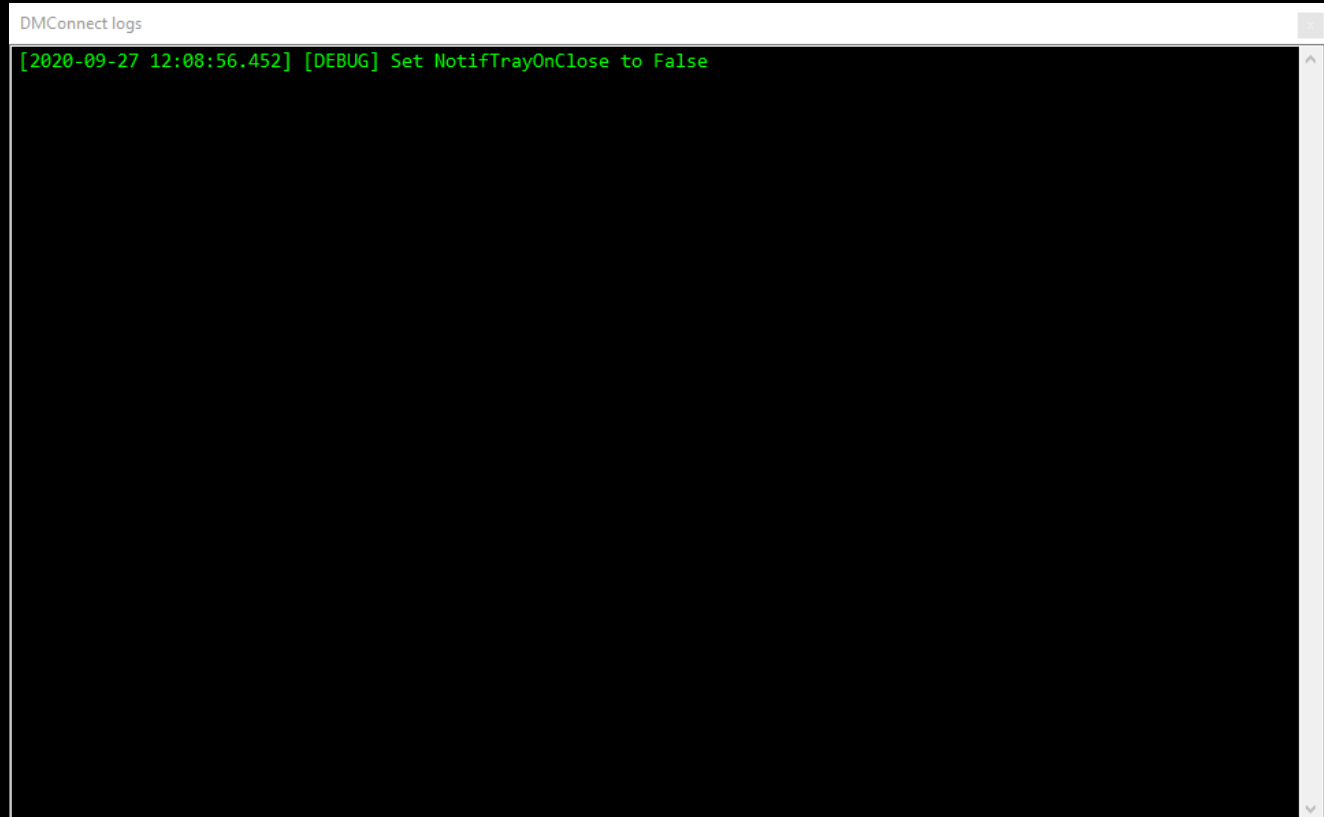
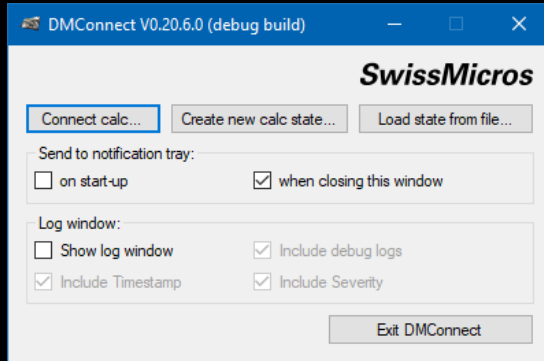
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Connect to which COM port?

Select a COM port to connect to:

COM1

Sync RTC upon successful connection

Cancel Connect

Attention: power drain

**Communication over the serial port causes significant battery drain for your calculator.**

If you intend to explore the calculator's state and maybe make some changes, then we suggest that you save the state to disk, disconnect the calculator and work on the state file that you saved. When you're ready to write the state back to the calculator, you can reconnect it then and either load the saved state back into it or clone the altered state to it.

Would you like to do this?


Do not warn me again about power drain

Yes

No



DM41 on COM8

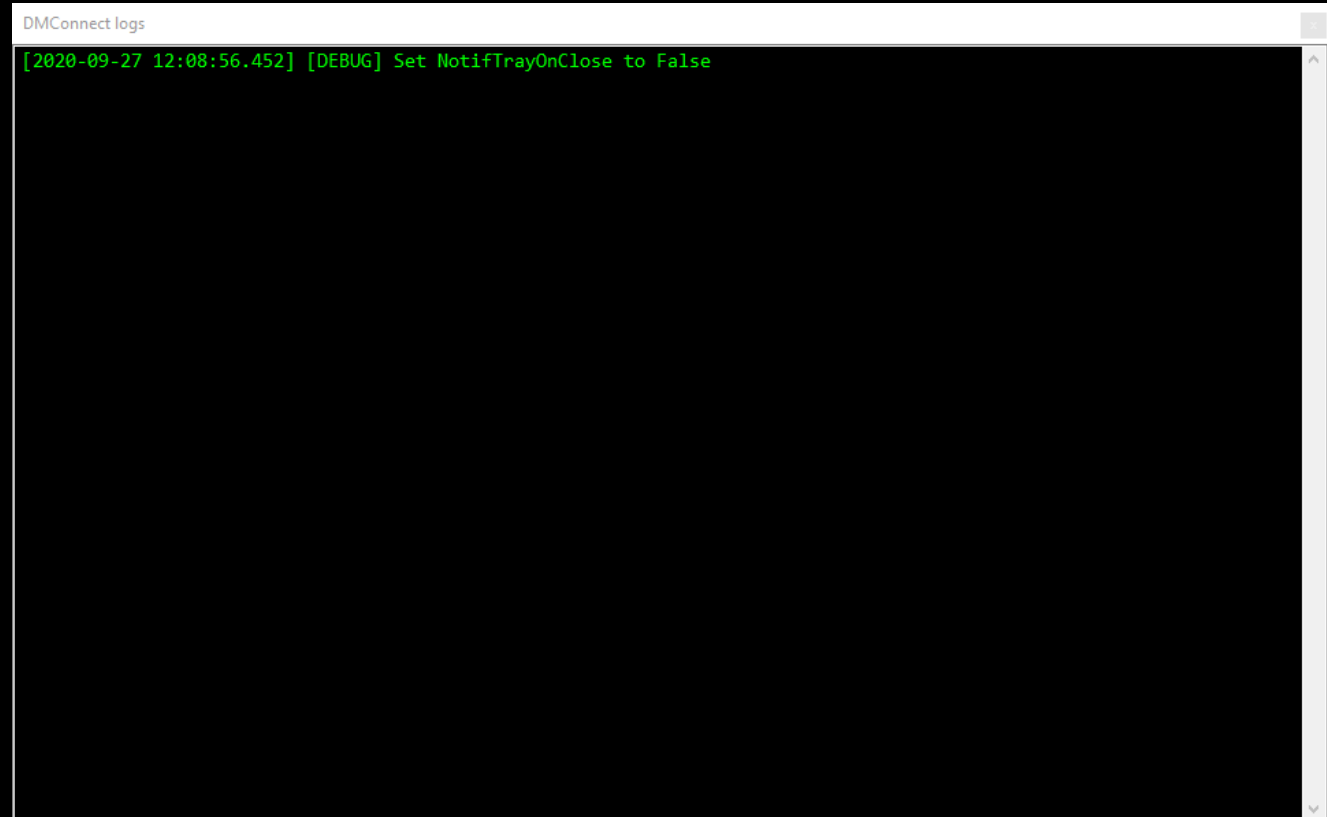
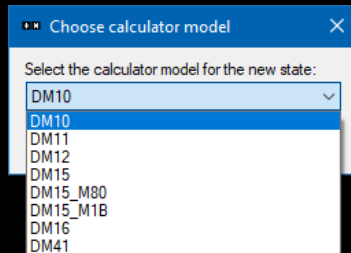
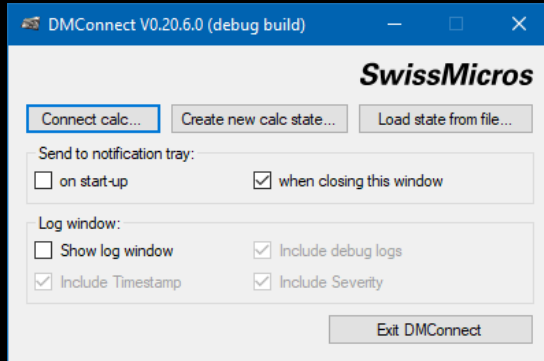


Calculator model: **DM41 or DM41L**  
 Firmware version: **V 29**  
 Battery voltage: **2.728V**

State Registers Stack/Mode Program Flags Extended Memory Alarms


```

DM41
00 01216700000004 01216700000004 01757600000004 00000000000000
08 4b000000000000 00000000444e52 0000000006e000 00000000000000
0c 000000000001ef 1fa001691ef1ee 0000002c048000 0000000007000
1ec 00000000000000 00000000000000 0000000c00020 00000000000000
A: 09999999999000 B: 0000002c048000 C: 600000001b80fd
S: 00101000000000
M: 00001b85ff6393 N: 000000000000c0 G: 00
  
```



DM15\_M1B in RAM

Calculator model: **DM15 or DM15L (M1B variant)**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags Matrices

R3	0	$\Sigma x$	<a href="#">Revert</a>
R4	0	$\Sigma x^2$	<a href="#">Revert</a>
R5	0	$\Sigma y$	<a href="#">Revert</a>
R6	0	$\Sigma y^2$	<a href="#">Revert</a>
R7	0	$\Sigma xy$	<a href="#">Revert</a>
R8	0		<a href="#">Revert</a>
R9	0		<a href="#">Revert</a>

Register tools

Clear all registers

Revert all registers

Set all registers to:

0

Import/Export tools

Export registers to CSV...


Import registers from CSV...

Memory partition

DIM (i): 19

DM41 in RAM

Calculator model: **DM41 or DM41L**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags Extended Memory Alarms

Alpha	DM41L	<a href="#">Revert</a>
R00	0	<a href="#">Revert</a>
R01	0	<a href="#">Revert</a>
R02	0	<a href="#">Revert</a>
R03	0	<a href="#">Revert</a>
R04	0	<a href="#">Revert</a>
R05	0	<a href="#">Revert</a>

Register tools

Clear all registers

Revert all registers

Set all registers to:

0

Import/Export tools


Export registers to CSV...

Import registers from CSV...


Memory options

SIZE: 100  $\Sigma$ REG: 11

DM15\_M1B in RAM



Calculator model: **DM15 or DM15L (M1B variant)**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State   Registers   **Stack/Mode**   Program   Flags   Matrices

RPN Stack

T:	<input type="text" value="0"/>	: Re	<input type="text" value="0"/>	: Im
Z:	<input type="text" value="0"/>	: Re	<input type="text" value="0"/>	: Im
Y:	<input type="text" value="0"/>	: Re	<input type="text" value="0"/>	: Im
X:	<input type="text" value="0"/>	: Re	<input type="text" value="0"/>	: Im
Last X:	<input type="text" value="0"/>	: Re	<input type="text" value="0"/>	: Im

Modes

Display:    Angle:     Decimal "." (comma)    USER mode    COMPLEX mode

DM16 in fpconvert.s16

Calculator model: **DM16 or DM16L**

Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State	Registers	Stack/Mode	Program	Flags
001-	43 22	A	0A	LBL A
002-	42	2	E2	2's COMPL
003-		23	C1	HEX
004-	43 5 4		24	CF 4
005-	43 5 5		25	CF 5
006-	43 49		AB	x=y
007-	43 21		D4	RTN
008-		9	F9	9
009-		D	FD	D
010-		40	CC	+
011-		34	CA	x<>y
012-	43 5 0		20	CF 0
013-	43 2		D2	x<0
014-	43 4 0		10	SF 0
015-	43 8		D8	ABS
016-		34	CA	x<>y
017-	43 2		D2	x<0
018-	22 9		49	GTO 9
019-		1	F1	1

Load program...

Save program...

Load listing...

Save listing...

Compile

Clear program...

DM16 in fpconvert.s16

Calculator model: **DM16 or DM16L**

Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State	Registers	Stack/Mode	Program	Flags
001:			LBL A	
002:			2's COMPL	
003:			HEX	
004:			CF 4	
005:			CF 5	
006:			x=y	
007:			RTN	
008:			9	
009:			D	
010:			+	
011:			x<>y	
012:			CF 0	
013:			x<0	
014:			SF 0	
015:			ABS	
016:			x<>y	
017:			x<0	
018:			GTO 9	
019:			1	

Load program...

Save program...


Insert listing...

Save listing...


Compile

Clear program...

DM41 in RAM



Calculator model: **DM41 or DM41L**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State   Registers   Stack/Mode   Program   **Flags**   Extended Memory   Alarms

- Flag 25 Error ignore
- Flag 26 BEEP enable
- Flag 27 USER mode
- Flag 28 Decimal .
- Flag 29 1000s separator
- Flag 30 CAT mode
- Flag 31 D/M/Y
- Flag 32 IL ManIO

# ***Model-specific features***

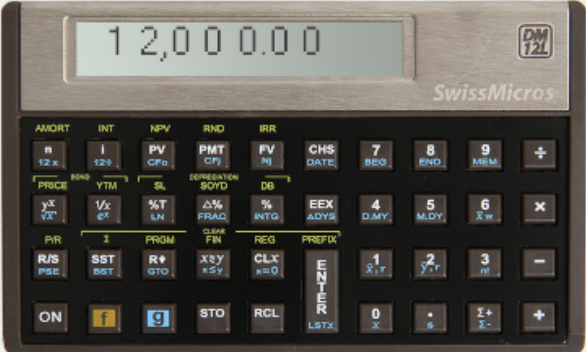
***Financial registers (DM12)***

***Matrices (DM15)***

***Number base and bit width (DM16)***


***Extended Memory / Alarms (DM41)***

DM12 in RAM



SwissMicros

Calculator model: **DM12 or DM12L**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State   Registers   Stack/Mode   Program   **Financial**

FV:

PMT:

PV:

i:

n:

Payment: END ▼

[Clear financial registers...](#)



# ***Model-specific features***

*Financial registers (DM12)*



*Matrices (DM15)*

*Number base and bit width (DM16)*

*Extended Memory / Alarms (DM41)*

DM15\_M1B in RAM

Calculator model: **DM15 or DM15L (M1B variant)**

Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags **Matrices**

Register usage  
Current usage: 6 Registers Available: 205 Registers Delete all matrices...

Matrix A Matrix B Matrix C Matrix D Matrix E

3 × 2 DIM A >>



	C1	C2
R1	0	0
R2	0	0
R3	0	0

Fill mtx with:  Go

Clear matrix... Load matrix... Save matrix... Delete matrix...

DM15\_M1B in RAM

Calculator model: **DM15 or DM15L (M1B variant)**

Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags **Matrices**

Register usage  
Current usage: 6 Registers Available: 205 Registers Delete all matrices...

Matrix A Matrix B Matrix C Matrix D Matrix E

4 × 2 DIM A >>

	C1	C2
R1		0
R2		0
R3	0	0

Fill mtx with:  Go

Clear matrix... Load matrix... Save matrix... Delete matrix...

Original HP-15C (sequential)  
Fixed Cell

# ***Model-specific features***

*Financial registers (DM12)*


*Matrices (DM15)*

*Number base and bit width (DM16)*

*Extended Memory / Alarms (DM41)*

DM16 in RAM

Calculator model: **DM16 or DM16L**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State **Registers** Stack/Mode Program Flags

R2C	#00000000 h	<a href="#">Revert</a>
R2D	#00000000 h	<a href="#">Revert</a>
R2E	#00000000 h	<a href="#">Revert</a>
R2F	#00000000 h	<a href="#">Revert</a>
R30	#00000000 h	<a href="#">Revert</a>
R31	#00000000 h	<a href="#">Revert</a>
<b>Index</b>	#00000000 h	<a href="#">Revert</a>

Register tools

Clear all registers

Revert all registers

Set all registers to:  
#00000000 h

Import/Export tools


Export registers to CSV...

Import registers from CSV...

Word size  
WSIZE 32

DM16 in RAM

Calculator model: **DM16 or DM16L**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State **Registers** Stack/Mode Program Flags

RPN Stack

T: #00000000 h

Z: #00000000 h

Y: #00000000 h

X: #00000000 h

Last X: #00000000 h

Modes

Display: HEX Angle: DEG  Decimal ", (comma) WSIZE: 32 2's COMPL

# ***Model-specific features***


*Financial registers (DM12)*

*Matrices (DM15)*


*Number base and bit width (DM16)*

*Extended Memory / Alarms (DM41)*

DM41 in mystery.s41



Calculator model: **DM41 or DM41L**



Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags **Extended Memory** Alarms

Extended Memory registers in use: 145  
 Extended Memory registers available: 217

File directory:

CPLX	P049
<b>CDOWN</b>	<b>P007</b>
PI	P083

Save Extended Memory image...

Load Extended Memory image...

Rename file in Extended Memory...

Save file from Extended Memory...

Load file into Extended Memory...

Delete Extended Memory file...

Clear Extended Memory...

Rename file

Rename....

CDOWN

OK Cancel

Select files to load

Select the file(s) to load into Extended Memory:

ABC	D124
DEF	D124

OK Cancel

DM41 in RAM

Alarm details

Wed Sep 30 2020 8:15:31 PM

Alpha data: REPEATING ALARM

Repeat every: 1 Weeks

OK Cancel

DM41L

Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags Extended Memory **Alarms**

- Sunday, 27 September 2020 @ 8:15:12 PM  
TEST ALARM
- » Wednesday, 30 September 2020 @ 8:15:31 PM  
REPEATING ALARM

New alarm...

Edit selected alarm...

Delete selected alarms...

Delete all alarms...

Load alarms...

SaveAlarms...

Acknowledge past due alarms

DM41 in RAM

Calculator model: DM41 or DM41L

DM41L

Clone to a compatible calculator...

Update calculator firmware...

Save changes...

State Registers Stack/Mode Program Flags Extended Memory **Alarms**

- » Friday, 21 August 2020 @ 10:59:00 PM  
(NO ALPHA DATA)

New alarm...

Edit selected alarm...

Delete selected alarms...

Delete all alarms...

Load alarms...

SaveAlarms...

Acknowledge past due alarms

# *Roadmap to release*

*Program decoder almost complete*

*Program encoder to write*

*Firmware management ("Beetlejuice" support in fw needed)*

*Tidy up the UI*

*Add CSV import/export of matrices*



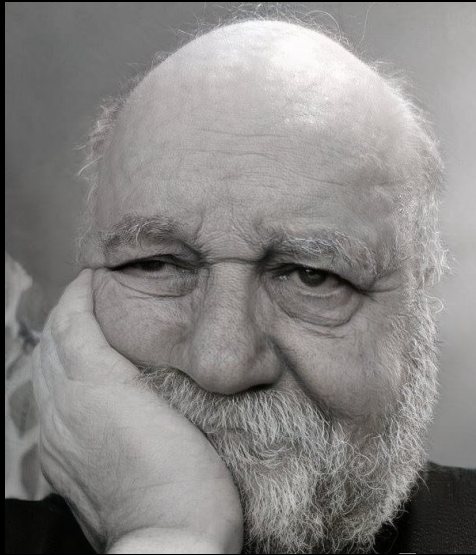
# *After that...*

*DMConnect is not YET cross-platform. Windows only.*

*Currently built against .NET 4.7.2*

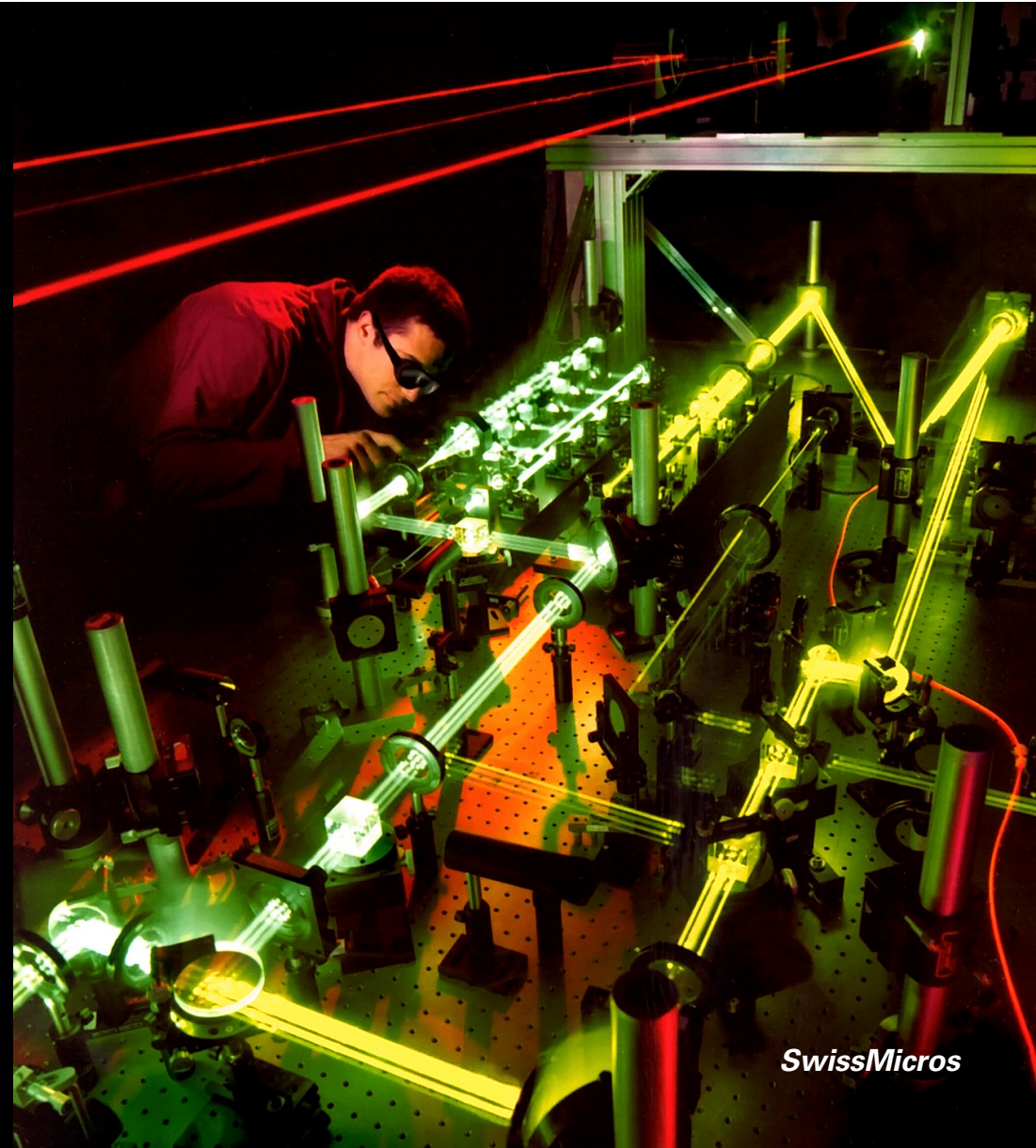
*Maybe switch to a GTK+ application*

*Ideas? ...*



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***SwissMicros***