# **RoeTest – Computer Tube Tester / Tube Measuring System**

(c) - Helmut Weigl www.roehrentest.de

### **Options - Options:**

RoeTest - professional tube-testing-system - options		- 🗆 ×				
How should directly heated (DC) tubes be treated (kind of always internal DC heating without correction internal DC heater - with simulation of AC heater (via re internal DC heater - external AC heater if heater is set to always external heating no matter what database says	f heater: ~direct)? calculating of measurement conditions) if heater is set to = '~direct o ~direct					
Preset PCB hardware versions						
heater board version: 11	please choose correct hardware version, otherwise the software version, and the software version of th	vare works wrong 🔺				
anode/plate-board version: 11						
g1-board version: 11		-				
G2-board version: 11						
G3-board version: 11	mainboard: 11					
automatic range switching: (switching at voltage)						
heater board range switching to high range at: 0,00 V Here can an exception configured for heater-range. The exeception are valid for alle tubes if there not a individual configuration for the tubetype in the tubedata. 0 means no exeception						
misc.						
smoothing curves if nominal maximal current is lower than Round measurement results (mAla + Ig2) to 2 decimal places if current > 1 to 1 decimal place if current > 10 Filename vor saving measured data: designation_ show pictures of tubes, sockets and bases	mA (only old ha mA mA I™ ID#_ □ %system1_ □ date_ □ time_ I♥ show additional instruments	rdware < V5) Transconductance ⓒ mAV ĈµMhos				
✓ quicktest with transconductance						
		<u>o</u> ĸ				

"How should directly heated (DC) tubes be treated (kind of heuater: - ~direct)?" Selects how direct heated tubes shall be treated (type of heating "~direkt"): Recommendation as above selected for all RoeTests For details see Theizung\_EN.pdf (Tips for heater voltage internal/external)

#### "Preset PCB hardware versions:" (Hardware version selection)

Here the used hardware version of the 5 plug-in boards A, H, G1, G2, G3 and mainboard is entered. It is essential to select the correct version number of the PCBs.

"automatic range switching: (switching at voltage...):" (Range switching) Please read the explanation in the software. Only vor hardware < V5. "misc:" (Miscellaneous)

<u>"smoothing curves if nominal maximal current is lower than .. mA."</u>

When recording characteristic curves with very low currents there may be slight bounces in the curves due to the limited resolution of the RoeTest (hardware < V5). This can be

corrected by software. Here you can enter the lower threshold where an automatic smoothing of the characteristic curve is performed (the expected nominal current from the static tube data values). If smoothing is not wanted enter 0 here.

### Recommendation: Firmware with Pic up to 4.0: 1,9 (10 bit resolution) Firmware with Pic since 5.2: 0,0 (12 bit resolution)

# Round measurement results (mA) la + lg2:

Smaller currents are output to 3 decimal places. Here you can set the currents from which rounding to 2 or 1 decimal place should take place. If you don't want rounding at all, set a high value (e.g. 999).

# Transconductance

The measurement **results** can be shown in mA/V or  $\mu$ Mhos (1000  $\mu$ HMhos = 1 mA/V). In database there is allways ma/V.

# "File name for saving measured data"

Automatic suggestion of a file name for storing the measured data. The file name always starts with the tube description (type). The further parameters are optional. Available are the ID# of the tube (see identity number), the % value of the first system, date, time, and a free text field (for example "Telefunken").

"show picutures of tubes, sockets and bases:"

If marked, then pictures will be shown in the measuring software (in an own window). Socket and holder pictures are included in the software. Tube pictures have to be supplied and stored by yourself. The storage location for the pictures is a sub directory of the measuring software ...Röhrenbilder....jpg.

### Show additional instruments:



## Quick test with transconductance

The slope measurement could be switched off in the quick test, then it would go a little faster.

# Options 2 – Part 2

🗜 RoeTest - professi	onal tube-testing-system -	Options 2		_		$\times$
–start extern pro	grams with button					
Name button:	command line for start	program:				
		<u> </u>	8			
-special tubes -	- start test window aft	r loading tube data				
🔽 nixie	🔽 stabilizier	✓ tuning indicators ✓ Thyratron ✓	Decatron / E1T			
remarks.pdf		Window size [nivels]				
🔲 🔲 Load 'remarks.pd	If when loading the tube data	XY				
set position and size		0 s position 0 0				
Bring roetest.exe	to the foreground	size 0 0				
setup window si	ize					
height of main wir	ndow [pixel]:	Changing the windows size is active at next program start.				
auto	•	The settings are stored in file 'ManualMainWindowHeight.txt'.				
		Delete this file for restoring auto mode.				
					<u>0</u> K	

# Start external programs with button:

This allows you to start another application from the RoeTest software (with a button in tab C).

# Special tubes:

After loading the tube data, you will jump directly to the corresponding window.

### Remarks.pdf:

If a PDF file with the file name "remarks.pdf" is stored in the tube data, then when loading the tube data, the PDF file is loaded with the PDF reader installed in the system (if it supports this). The screen position and window size can be specified. This is useful if a detailed test instruction, possibly with images, is required for the tube, which does not fit in the comments of the data set.

### Setup window size:

Manually change the window size. This may be useful for very small screens (reduce) or very large screens with high resolution (enlarge). The change takes effect after restarting the RoeTest software and remains permanently saved in the file 'ManualMainWindowHeight.txt'.