# Software Changes V10.5.0.0

1. Batch processing window, endless loop: Now there are shortcut keys for the buttons, **<Alt-n**> for next tube and **<Alt-a**> / **<ESC**> for abort:

院 RoeTest - professional t	ube-testing-system - batch	- endless loop	<u> </u>		$\times$	
nloaso i	nsort nov	t tube				
picase i		l lube				
SOCKET:	Noval B9A					
auto tube detection:	deactivated - start meas	urement with button				
caution - tube is hot!						
a	ort <esc></esc>	star <u>n</u> ext tu	be			

During measurements **<ESC>** can always be used to cancel/abort.

Batch processing can now be started from the main window using <**Alt-p**>.

Now you can define a windows sound for a cancel/abort event in batch processing:



### 2. Startup/wait window: Abort time

The abort time is now saved at program termination and will be reloaded at next program start. If you have defined presets you have to save them so their settings will also be kept across sessions.

RoeTest - professional tu	be-test	_	
Wait until tube warmed up and are constant. Confirm with OK waiting since	measured v	alues	
after C 300 C 900 seconds will be aborted autom	<ul> <li>3800</li> <li>atically</li> </ul>		
autostart      no autostart      autostart when plate current and second secon	rent has read	ched at lea ht for a set	st 20% of time.
max. hysteresis [mA]: (x1) -> 0,03mA	0,0300	time [s] (3-99)	5
C autostart after fixed time	of [s]		
first measurement:  60	=5s)	easurement	ts:  30
🕞 load preset		Store	preset

When the very long abort time of 3600 s is used a red hint is displayed in the message window to remind you to (probably) reset this setting:

ľ	screen ynu vollage onlo v
I	Info: Termination Duration = 3600 s (60 minutes)

Until now the maximum time for first measurement and follow up measurements was 999 s. I changed that value to 1 s below the maximum abort time (=3599 s).

2. Startup/wait window: Emission-Time Diagram for watching how far the warm-up process already is:

The trend of the plate current can now be observed in the Startup/wait window:



The graphic's Y-axis is scaled according to the expected nominal current value. If the current exceeds the expected nominal current value the Y-axis is dynamically re-scaled.

The graphic's X-axis is scaled according to the wait time specified in the Startup/wait window's "Autostart nach fester Zeit" [Auto-start after fixed wait time] setting (even when another start method is selected). If the waiting time exceeds this value (may happen when not a fixed time option is selected) the Y-axis will be re-scaled dynamically.

Wait until tube warmed up and measured values are constant. Confirm with OK				
waiting since 11 seconds	i			
after C 300 C 900 (	3600			
seconds will be aborted automatical	lly			
autostart     f     no autostart     C autostart when plate current b	nas reached at least 20% of			
the nominal current and stays	constant for a set time.			
max. hysteresis [mA]: (x1) -> 0,03mA	0,0300 time [s]: 5 (3-99)			
autostart after fixed time of [s]     first measurement:         [60         (>=55)	next measurements: 30			
🔁 load preset	store preset			

The graphics will be shown **each time** the Startup/wait window is shown.

Only when heated for the first time the graphics will also be copied automatically to the window "Kennlinie im Zeitverlauf"[characteristic over time] (when heating up for the next time, like for measuring a second system or another measuring task, the tube is already partially warmed up and the graphics would be not very meaningful).

From this window (characteristic over time) the graphics can also be printed.



Printing of this time diagram can now also be embedded in printer jobs (using the new printer form designer).

3. New %-Display for the Plate Current:



The %-display is deactivated during characteristic curve measurement as it does not make sense for that measuring purpose.

The colors for the scale correspond to the colors of the %-values from the window for the static values. The %-values for 'good' (green) or 'still usable' (yellow) can be changed according to your requirements using "Optionen->auswerten Röhre" [Options->Analyze Tube]:



4. Viewing the emission %-values of the already measured systems during measurement of follow up systems:

In the graphics of the Startup/wait window the emission %-values of the already measured tube systems are displayed:

R.	bitte bes	stätigen:	-		
Bitte warten bis Röhren aufgeheizt und Messwerte konstant sind! Bestätigen mit 'starten'.					
Warte seit 4	Sekund	den			
Nach 💽 300	C 900	3600			
Sekunden wird autom	atisch abgel	prochen!			
Autostart					
C kein Autostart			1		
<ul> <li>Autostart erfolgt des Sollwertes e konstant ist.</li> </ul>	<ul> <li>Autostart erfolgt, wenn der Anodenstrom mindestens 20% des Sollwertes erreicht hat, und der Strom eine Zeit lang konstant ist.</li> </ul>				
max. Hysterese   (x1) -> 0,03mA	[mA] :	0,0300	Zeit [s]: (3-99)	5	
C Autostart nach fester Zeit von [s]:					
erste Messung:	30	Folgemes	sungen:	30	
📄 lade	Preset	<u> </u> 8	speichere	Preset	
1: 80 % 2: 88 %					
starten			<u>a</u> bbreche	en <esc></esc>	

Auto-start options/Auto-start presets:

There is a new button in Tab C now:

hot short
emission tester type 1
emission tester type 2
load md tubestock
load md tubest. #ID F2
save curve parameters
identify
regenerate
and the surface of the surface of the
edit autostart presets

This can be used to open the Startup/wait window solely for editing purposes:

fter C 300 C 900 seconds will be aborted automat	<ul> <li>3800</li> <li>tically</li> </ul>
autostart	
C autostart when plate curre the nominal current and sta	ent has reached at least 20% of ys constant for a set time.
max. hysteresis [mA]: (x1) -> 0,03mA	0,0300 time [s]: 5 (3-99)
C autostart after fixed time of	f [s]
first measurement: 60 (>=5	next measurements: 30
load preset	store preset
	n/t

I created some presets that are included in the new software version:

<u>R</u>		Öffnen
Suchen in: 🚺 common_data_and_settings 💌	← 🖻 💣 📰 ▾	
Name	Änderungsdatum	Тур
auto_0,03_5.apf	25.11.2020 19:14	APF-Datei
auto 0.03.7.apf	24.11.2020 09:56	APF-Datei
default.apf	24.11.2020 09:56	APF-Datei
no_autostart.apf	24.11.2020 09:55	APF-Datei
time_10s_10s.apf	01.12.2020 19:37	APF-Datei
time_30s_30s.apf	01.12.2020 07:51	APF-Datei
time_60s_30s.apf	24.11.2020 09:55	APF-Datei
time_120s_30s.apf	24.11.2020 09:38	APF-Datei
time_300s_30s.apf	24.11.2020 09:38	APF-Datei
time_300s_300s.apf	01.12.2020 07:50	APF-Datei

The presets 'default.apf' have a specific function: When you load presets in batch processing the 'default.apf' presets will also be loaded at the end of batch processing. Therefore you should store your most often used preset settings as 'default.apf'.

The presets can be used as follows:

- manual loading in the Startup/wait window
- automatic loading during batch processing

So you can freely configure the wait times during batch processing: e.g. static measurements: heat up each system for 5 minutes recording characteristic curves: only wait 30 s each

Batch processing could such be expanded as follows:

vauto start: Load preset (*.apf): (restores 'default.apf at end of batch job)	C:\CBuilder5\Projects\RoeTest\common_	data_and_settings <mark>\time_300s_300s.apf</mark> _		
J✓ static measurements: (currents/transconductance)	<ul> <li>✓ measure inverse amplification factor I</li> <li>✓ measure inverse amplification factor I</li> </ul>	) of plate 🔽 internal resistance ) of screen 🔽 test vakuum/lg1	<ul> <li>✓ test cathode isolation</li> <li>✓ diode reverse test</li> </ul>	
uick-test	search Ug1 for laConst	Calculate transcon	ductance at new Ug1	
abort, if not at least	49 % sound [wav]: C:\CBuilder5\Projects\RoeTest\glasbreak.wav			
I√ auto start: Load preset (*.apf): (restores 'default.apf' at end of batch job)	C:\CBuilder5\Projects\RoeTest\common_	data_and_settings\ <u>time_30s_30s.apf</u>		
₩ writing curves	<b>▼</b> 1	☑ Ug1-curve	☑ Ua/Ug2-curve	
manual mode	I✓ start immeditately	☐ softstart	I laKonst= [mA] 0	

Please Note: At the end of batch processing the 'default.apf' presets will be loaded (the values you have stored to this file).

## Batch processing, comparing System 1+2:

Compare system 1 and 2 (e.g. double triode)

The analysis graphics can now be included into a printer job and then be printed.

#### Printing from batch processing:

 load print job (.pjb) - doubleclick:
 C:\CBuilder5\Projects\RoeTest\common\_data\_and\_settings\doubletriode.pjb

 print
 (at the end of the batch processing 'default.pjb' is loaded again)

Now printer jobs (combinations of printer forms) can be loaded.

#### **Printing:**

New: Printer form editor, printer jobs (see separate information).