

# Process Log (logbooks) in LabManager

- Opening a logbook
  - When you start and stop to use a tool the logbook entry page pops up automatically.
  - While you are using a tool you can find the logbook “Open” button on the frontpage:

Equipment Being Used

Equipment	Logbook	User	Organization	Start Time	End Time
00 TestTool	<b>Open</b>	Behan' on behalf of 'choi'	DTU Danchip	2014-11-28 10:00:44	<b>Stop</b>

- On the tool Info page:

Equipment Info

Equipment: 00 TestTool

Start to use

CEN (All) DCH (All) **Last Used** Last Used (

2.000 00 TestTool 2.013 Wordentec 2.002 Alca

Properties for 00 TestTool

Go to

Status Log Service Log **Process Log**

Usage Log Error Log Change status

Cross Contamination Sheet

Edit Accessories Edit Log parameters

Documents

# Process log (cont.)

- When starting/stopping a machine or using the "Open" button on the front-page you will go directly to the editing log-entry page.
- This page looks like this:
  - On the top you will see a table showing the previous log entry
  - Below is a form for your entry
  - The actual appearance may change in future LabManager versions

Machine Process log for **00 TestTool**

Previous process log entry:

1130

ID	Start date	User/Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment
				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]
1130	2014-11-18 17:12:23	jehan/-	1	my2	12	TI	TI3Au2	00:22:14	00:56:49	

Edit entry:

cell width: 4 [show extra fields](#)

ID	Start date	User/Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment
1140				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]
<input type="checkbox"/>	2014-11-28 10:00:44	choi/jehan	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	00:56:49	<input type="text"/>

ID: 1140 line:

Go to [Process Log](#)

## Process log (cont.)

- The ID, Start date and User/operator fields are filled in using the information you got when you started using the tool.
- More details about the log line will come on the next pages.
- When you have logged out of a tool and there is only one line in the log you will see a “No processing done” button below the table. This is to insert a short info-text in case you were not able to do any processing. I.e. if the tool fails to load your wafer.

ID	Start date	User/Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment
1140				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]
<input type="checkbox"/>	<input type="checkbox"/>	2014-11-28 10:00:44	choi/ jehan	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	00:56:49	<input type="checkbox"/>

ID:  line:

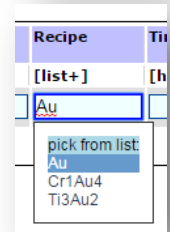
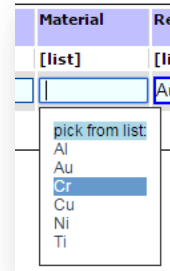
## Process log (cont.)

- Now back to the log line.
- The two buttons to the left (+, -) allows you to add or delete a line. For depositions you should add a new line for each material e.g. if you deposit Ti/Au you should have one line for Ti and one line for Au.
- The boxes in the line are the entry fields.
- There are different kinds of these:
  - **[text]**: free text entry (up to 255 chars). In some browsers you can expand the field by dragging the corner.
  - **[nm]**: a numeric input field. It can have any other unit e.g. [V], [Watt] etc. except for the reserved words: [text], [list], [list+] and [hh:mm:ss]

ID	Start date	User/Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment	
1140				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]	
<input type="button" value="+"/>	<input type="button" value="-"/>	2014-11-28 10:00:44	choi/jehan	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	00:56:49	<input type="text"/>	
<input type="button" value="reset"/>		<input type="button" value="Save"/>									
<input type="button" value="Copy from"/>		ID: 1140	line: <input type="text"/>								

# Process log (cont.)

- **[list]**: a drop down list field. When you start typing it will come with suggestions that match you input. A " " <space> will show all. You need to select an item on the list before proceeding.
- **[list+]**: same as list except that it allows you to add new items to the list. Your entry will be the first on the list and you should select that if you want to add it.
- **[hh:mm:ss]**: A time field.  
You may enter time in hh:mm:ss or second format.
  - if you enter 12:34 it becomes 00:12:34
  - entering 246 becomes 00:04:06



ID	Start date	User/Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment	
1140				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]	
<input type="button" value="+"/> <input type="button" value="-"/>	2014-11-28 10:00:44	choi/jehan	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	00:56:49	<input type="text"/>	
<input type="button" value="reset"/> <input type="button" value="Save"/>											
<input type="button" value="Copy from"/>		ID: 1140	line: <input type="text"/>								

# Process log (cont.)

- **Fields in *italics*** (here: *Total time [hh:mm:ss]*):  
This is a calculation field defined by Danchip.  
In this case it calculates the sum of the previous entry's *Total time* field and the *Time* field from the present line.  
Normally you cannot edit these fields. But by clicking the checkbox to the right of the field you can. This should be done when e.g. filling new chemicals in a bath and resetting the number of times it has been used.

Previous process log entry:

1130

ID	Start date	User/ Operator	line	Sample	Thickness	Material	Recipe	Time	<i>Total time</i>	Comment
				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]
1130	2014-11-18 17:12:23	jehan/-	1	my2	12	Ti	Ti3Au2	00:22:14	00:56:49	

Edit entry:

cell width:

[show extra fields](#)

ID	Start date	User/ Operator	line	Sample	Thickness	Material	Recipe	Time	<i>Total time</i>	Comment
				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]
1140	2014-11-28 10:00:44	choi/ jehan	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	Au	00:02:00	00:58:49	<input type="checkbox"/>

[Copy from](#)

ID:

line:

## Process log (cont.)

- Mandatory/optional fields: You may already now have noticed that the field background is either light blue or white. The emphasized fields are mandatory to fill in while the white fields are optional.
- Error in field: If you enter non-numeric values in a numeric field the frame will be **red**.
- Changed fields: When a field is changed the frame will be **blue** and "Save" will be enabled.  
Click "Save" before leaving the page (you will be warned if you didn't).
- "Copy from" button: You may copy lines from previous entries by entering the ID and optional the line number and then clicking "Copy from". The lines will be appended to the current entry.

ID	Start date	User/Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment
1140				[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]
	2014-11-28 10:00:44	choi/jehan	1	test1	10	Ti	Ti3Au2	00:02:00	*00:02:00	<input checked="" type="checkbox"/> reset time
			2	test1	10a	Au	Ti3Au2	00:00:40	00:02:40	<input type="checkbox"/>
			3	my2	12	Ti	Ti3Au2	00:22:14	00:24:54	<input type="checkbox"/>

reset Save

Copy from ID: 1130 line: 1

## Process log (cont.)

- “↓” button: Move line down. “+”, “-” and “↓” saves when clicked.
- “Show extra fields” button: Some seldom used fields may be hidden by default. You can toggle the visibility of these fields by clicking this button. Below the “Close date” and “Extra info” fields appears. The “Close date” is the last time the entry was saved with all mandatory fields filled.
- “cell width” input: You can change the width of the input fields.
- “Process Log” button: Brings you to the list of process log entries. See next page.

Edit entry:

cell width:

ID	Start date	Close date	User/ Operator	line	Sample	Thickness	Material	Recipe	Time	Total time	Comment	Extra info
1140					[text]	[nm]	[list]	[list+]	[hh:mm:ss]	[hh:mm:ss]	[text]	[text]
	2014-11-28 10:00:44	2014-11-28 12:18:32	choi/ jehan	1	<input type="text" value="test1"/>	<input type="text" value="10"/>	<input type="text" value="Ti"/>	<input type="text" value="Ti3Au2"/>	<input type="text" value="00:02:00"/>	<input type="text" value="*00:02:00"/>	<input checked="" type="checkbox"/>	<input type="text" value="reset time"/>
				2	<input type="text" value="test1"/>	<input type="text" value="100"/>	<input type="text" value="Au"/>	<input type="text" value="Ti3Au2"/>	<input type="text" value="00:00:40"/>	<input type="text" value="00:02:40"/>	<input type="checkbox"/>	<input type="text"/>
				3	<input type="text" value="my2"/>	<input type="text" value="12"/>	<input type="text" value="Ti"/>	<input type="text" value="Ti3Au2"/>	<input type="text" value="00:22:14"/>	<input type="text" value="00:24:54"/>	<input type="checkbox"/>	<input type="text"/>

ID:  line:

Go to



# Process log (cont.)

- If you open the Process log from the tool Info page you will get a page like the one below. It will automatically open at the page with the most recent entries.
  - 1) You can see other entries by clicking on the page# or previous/next.
  - 2) To edit a specific entry click on the ID/status button in the first column.
  - 3) You can filter on date, user and the other columns. Enter a search letter or word and click one of the "Filter" buttons.
  - 4) You can reset the filter by clicking "reset" button.

Machine Process log for **Alcatel** 1 Help on ProcessLog

4 **reset** **Extra fields hidden** **Status entries visible** Showing 3-12 of 12 entries.  pr. page. Go to page: previous 1 2 **Download log as csv file**

ID	Start date	User/ Operator	line	Wafer ID	Recipe	# of wafers	Material	Thickness	Total thickness	Actual rate	St
	before			[text]	[list+]	[#]	[list]	[Å]	[nm]	[Å/s]	[li
<b>3</b> <b>Filter:</b>	<input type="text" value="2015-04-30"/>	<input type="text"/>	&	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>1142</b>	2014-12-09 16:37:55	jehan/-	1		Cr2Au1	4	Cr	130	52	10	Si
			2		Cr2Au1	4	Au	3000	1200	10	Si
<b>2</b> <b>1150</b>	2015-01-06 09:23:02	jehan/-	1		Cr2Au1		Cr				Si
<b>1161</b>	2015-02-25 10:13:43	jehan/-	1		Cr2Au1	1	Au	1234	123.4	10	Si
			2		Pt	2	Pt	1500	300	5	Si
<b>status</b>	2015-02-28 00:37:45	jehan/-	1	Info: limited.							
<b>status</b>	2015-02-28 00:39:25	jehan/-	1	Info: service.							
<b>status</b>	2015-02-28 00:39:51	jehan/-	1	Info: ready.							
<b>1162</b>	2015-02-28 00:40:54	jehan/-	1	Info: final							

# Process log (cont.)

- 5) You can see extra fields by clicking on "Extra fields hidden/visible" button.
- 6) You can see Status entries by clicking on "Status entries hidden/visible" button.
- 7) You can download the *entire* log as a csv file to use in e.g. Excel by clicking on "Download log as csv file" button.
- 8) You can get this help by clicking "Help on Processlog" button.

Machine Process log for **Alcatel** Help on ProcessLog

Showing 3-12 of 12 entries.  pr. page. Go to page: previous 1 2

ID	Start date	User/Operator	line	Wafer ID	Recipe	# of wafers	Material	Thickness	Total thickness	Actual rate	St
	before			[text]	[list+]	[#]	[list]	[Å]	[nm]	[Å/s]	[li
Filter:	<input type="text" value="2015-04-30"/>	<input type="text"/>	&	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1142	2014-12-09 16:37:55	jehan/-	1		Cr2Au1	4	Cr	130	52	10	Si
			2		Cr2Au1	4	Au	3000	1200	10	Si
1150	2015-01-06 09:23:02	jehan/-	1		Cr2Au1		Cr				Si
1161	2015-02-25 10:13:43	jehan/-	1		Cr2Au1	1	Au	1234	123.4	10	Si
			2		Pt	2	Pt	1500	300	5	Si
status	2015-02-28 00:37:45	jehan/-	1	Info: limited.							
status	2015-02-28 00:39:25	jehan/-	1	Info: service.							
status	2015-02-28 00:39:51	jehan/-	1	Info: ready.							
1162	2015-02-28 00:40:54	jehan/-	1	Info: final							