LOG VIEWER

1. INSTALLATION

Access the SD card and copy the folder *LogViewer* on your computer.

Open the folder *LogViewer* and run the *LogViewer* program by double click link, recognizable by the magnifying glass icon (Figure 1).

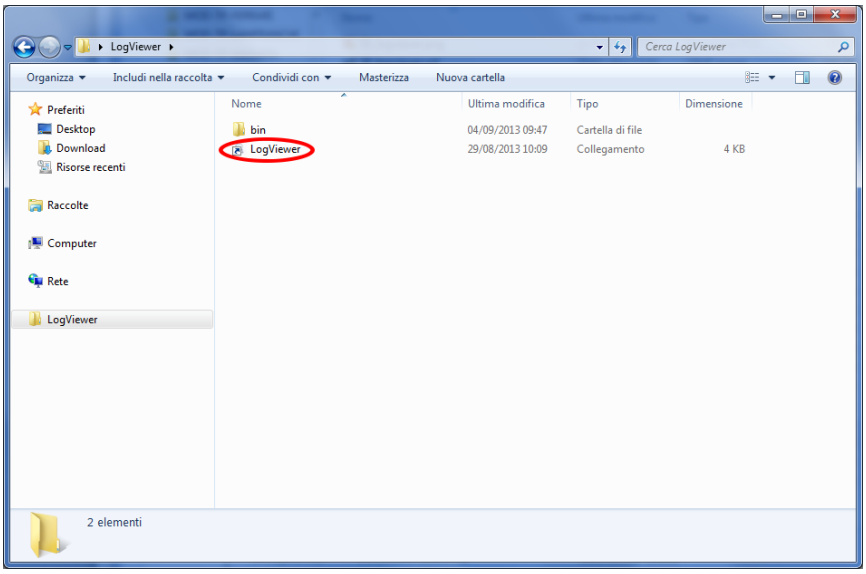


Figure 1: *LogViewer* folder. Double click on *logviewer* to run it

If the program doesn't start by link, open *bin* folder and run program *log_viewer*, recognizable by the magnifying glass icon.

WARNING: Please check that Microsoft .NET Framework is installed on your PC. If it is not, open the folder *MicrosoftNET* available on SD card and install the executable file contained inside.

2. LANGUAGE SETTING

The default language at first run of *LogViewer* is English. It is possible to change the language by the dropdown menu on right of window. Languages available are English, Italian, German and French.

The program saves the selected language and to next run loads the user interface in that language.

3. SINGLE LOG FILE VIEWING

Select by dropdown menu *File* → *Open* (Figure 2) to view the cycle details of a particular log file. The program will show a dialog box for the file selection that you want open.

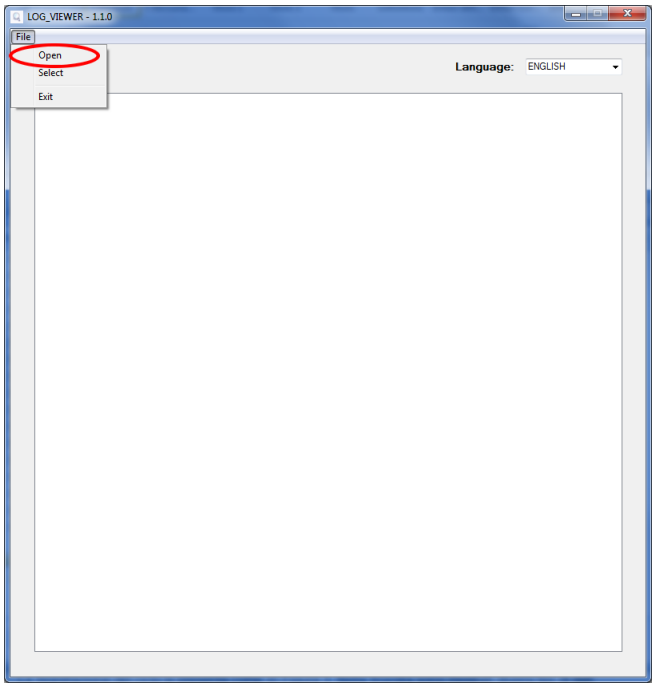


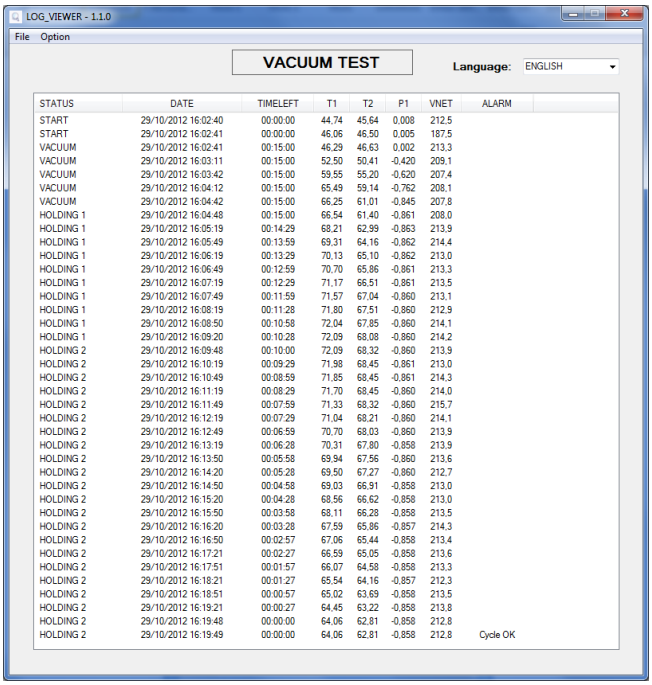
Figure 2: *Logviewer* window, Open item

The program shows the cycle log as showed in Figure 3. In the window are showed different kind of data:

- Step of the sterilization cycle;
- Date and time of data recording;
- Time to end of cycle;
- Chamber temperatures and pressure (values returned by probes T1, T2 e P1);
- Mains voltage;
- Cycle outcome, readable on last line.

The kind of cycle related to log is returned in the box in center position.

During the log viewing, *Options* item is present in menu bar and allows access to two functions: *Make Report* and *Make Log PDF*.



STATUS	DATE	TIMELEFT	T1	T2	P1	VNET	ALARM
START	29/10/2012 16:02:40	00:00:00	44,74	45,64	0,008	212,5	
START	29/10/2012 16:02:41	00:00:00	46,06	46,50	0,005	187,5	
VACUUM	29/10/2012 16:02:41	00:15:00	46,29	46,63	0,002	213,3	
VACUUM	29/10/2012 16:03:11	00:15:00	52,50	50,41	-0,420	209,1	
VACUUM	29/10/2012 16:03:42	00:15:00	59,55	55,20	-0,620	207,4	
VACUUM	29/10/2012 16:04:12	00:15:00	65,49	59,14	-0,762	208,1	
VACUUM	29/10/2012 16:04:42	00:15:00	66,25	61,01	-0,845	207,8	
HOLDING 1	29/10/2012 16:04:48	00:15:00	66,54	61,40	-0,861	208,0	
HOLDING 1	29/10/2012 16:05:19	00:14:29	68,21	62,99	-0,863	213,9	
HOLDING 1	29/10/2012 16:05:49	00:13:59	69,31	64,16	-0,862	214,4	
HOLDING 1	29/10/2012 16:06:19	00:13:29	70,13	65,10	-0,862	213,0	
HOLDING 1	29/10/2012 16:06:49	00:12:59	70,70	65,86	-0,861	213,3	
HOLDING 1	29/10/2012 16:07:19	00:12:29	71,17	66,51	-0,861	213,5	
HOLDING 1	29/10/2012 16:07:49	00:11:59	71,57	67,04	-0,860	213,1	
HOLDING 1	29/10/2012 16:08:19	00:11:28	71,80	67,51	-0,860	212,9	
HOLDING 1	29/10/2012 16:08:50	00:10:58	72,04	67,85	-0,860	214,1	
HOLDING 1	29/10/2012 16:09:20	00:10:28	72,09	68,08	-0,860	214,2	
HOLDING 2	29/10/2012 16:09:48	00:10:00	72,09	68,32	-0,860	213,9	
HOLDING 2	29/10/2012 16:10:19	00:09:29	71,98	68,45	-0,861	213,0	
HOLDING 2	29/10/2012 16:10:49	00:08:59	71,85	68,45	-0,861	214,3	
HOLDING 2	29/10/2012 16:11:19	00:08:29	71,70	68,45	-0,860	214,0	
HOLDING 2	29/10/2012 16:11:49	00:07:59	71,33	68,32	-0,860	215,7	
HOLDING 2	29/10/2012 16:12:19	00:07:29	71,04	68,21	-0,860	214,1	
HOLDING 2	29/10/2012 16:12:49	00:06:59	70,70	68,03	-0,860	213,9	
HOLDING 2	29/10/2012 16:13:19	00:06:28	70,31	67,80	-0,858	213,9	
HOLDING 2	29/10/2012 16:13:50	00:05:58	69,94	67,56	-0,860	213,6	
HOLDING 2	29/10/2012 16:14:20	00:05:28	69,50	67,27	-0,860	212,7	
HOLDING 2	29/10/2012 16:14:50	00:04:58	69,03	66,91	-0,858	213,0	
HOLDING 2	29/10/2012 16:15:20	00:04:28	68,56	66,62	-0,858	213,0	
HOLDING 2	29/10/2012 16:15:50	00:03:58	68,11	66,28	-0,858	213,5	
HOLDING 2	29/10/2012 16:16:20	00:03:28	67,59	65,86	-0,857	214,3	
HOLDING 2	29/10/2012 16:16:50	00:02:57	67,06	65,44	-0,858	213,4	
HOLDING 2	29/10/2012 16:17:21	00:02:27	66,59	65,05	-0,858	213,6	
HOLDING 2	29/10/2012 16:17:51	00:01:57	66,07	64,58	-0,858	213,3	
HOLDING 2	29/10/2012 16:18:21	00:01:27	65,54	64,16	-0,857	212,3	
HOLDING 2	29/10/2012 16:18:51	00:00:57	65,02	63,69	-0,858	213,5	
HOLDING 2	29/10/2012 16:19:21	00:00:27	64,45	63,22	-0,858	213,8	
HOLDING 2	29/10/2012 16:19:48	00:00:00	64,06	62,81	-0,858	212,8	
HOLDING 2	29/10/2012 16:19:49	00:00:00	64,06	62,81	-0,858	212,8	Cycle OK

Figure 3: log viewing mode of Vacuum cycle

4. OPEN DIRECTORY

Select by dropdown menu *File* → *Select* (Figure 4) to browse the log files in a particular folder. The program will show a dialog box to specify the path to browse.

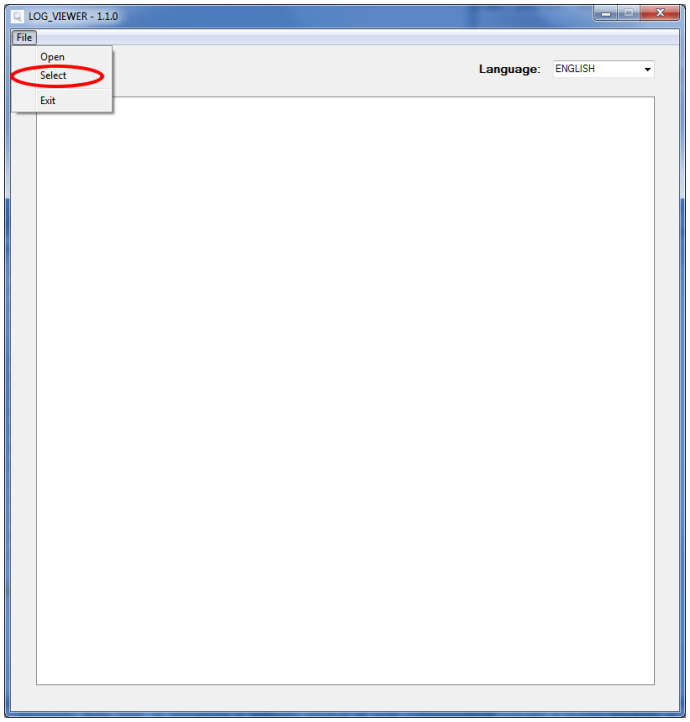
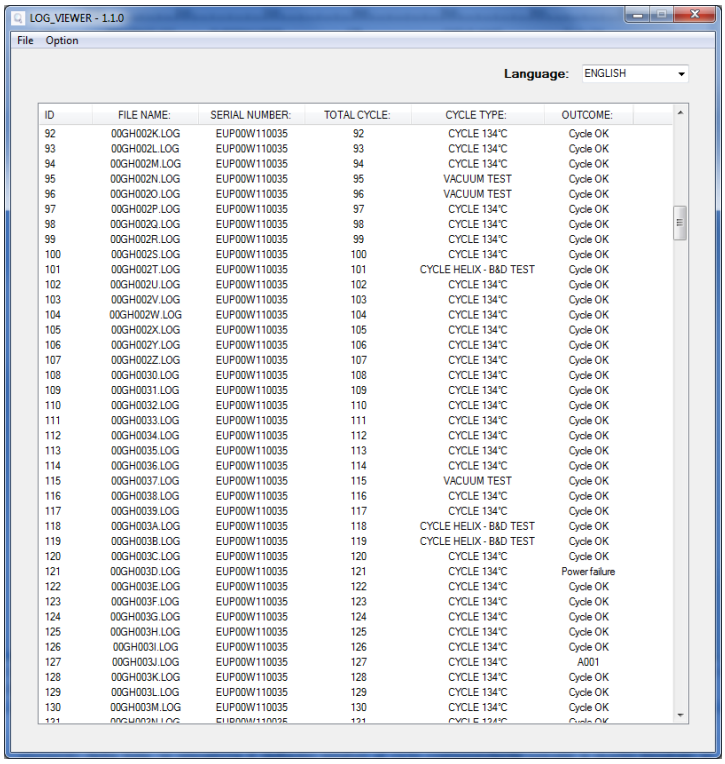


Figure 4: item *Select*, for browsing folder

The program display only **.log* files with valid content in the selected folder, and shows a list as in Figure 5.



ID	FILE NAME:	SERIAL NUMBER:	TOTAL CYCLE:	CYCLE TYPE:	OUTCOME:
92	00GH002K.LOG	EUP00W110035	92	CYCLE 134°C	Cycle OK
93	00GH002L.LOG	EUP00W110035	93	CYCLE 134°C	Cycle OK
94	00GH002M.LOG	EUP00W110035	94	CYCLE 134°C	Cycle OK
95	00GH002N.LOG	EUP00W110035	95	VACUUM TEST	Cycle OK
96	00GH002O.LOG	EUP00W110035	96	VACUUM TEST	Cycle OK
97	00GH002P.LOG	EUP00W110035	97	CYCLE 134°C	Cycle OK
98	00GH002Q.LOG	EUP00W110035	98	CYCLE 134°C	Cycle OK
99	00GH002R.LOG	EUP00W110035	99	CYCLE 134°C	Cycle OK
100	00GH002S.LOG	EUP00W110035	100	CYCLE 134°C	Cycle OK
101	00GH002T.LOG	EUP00W110035	101	CYCLE HELIX - B&D TEST	Cycle OK
102	00GH002U.LOG	EUP00W110035	102	CYCLE 134°C	Cycle OK
103	00GH002V.LOG	EUP00W110035	103	CYCLE 134°C	Cycle OK
104	00GH002W.LOG	EUP00W110035	104	CYCLE 134°C	Cycle OK
105	00GH002X.LOG	EUP00W110035	105	CYCLE 134°C	Cycle OK
106	00GH002Y.LOG	EUP00W110035	106	CYCLE 134°C	Cycle OK
107	00GH002Z.LOG	EUP00W110035	107	CYCLE 134°C	Cycle OK
108	00GH0030.LOG	EUP00W110035	108	CYCLE 134°C	Cycle OK
109	00GH0031.LOG	EUP00W110035	109	CYCLE 134°C	Cycle OK
110	00GH0032.LOG	EUP00W110035	110	CYCLE 134°C	Cycle OK
111	00GH0033.LOG	EUP00W110035	111	CYCLE 134°C	Cycle OK
112	00GH0034.LOG	EUP00W110035	112	CYCLE 134°C	Cycle OK
113	00GH0035.LOG	EUP00W110035	113	CYCLE 134°C	Cycle OK
114	00GH0036.LOG	EUP00W110035	114	CYCLE 134°C	Cycle OK
115	00GH0037.LOG	EUP00W110035	115	VACUUM TEST	Cycle OK
116	00GH0038.LOG	EUP00W110035	116	CYCLE 134°C	Cycle OK
117	00GH0039.LOG	EUP00W110035	117	CYCLE 134°C	Cycle OK
118	00GH003A.LOG	EUP00W110035	118	CYCLE HELIX - B&D TEST	Cycle OK
119	00GH003B.LOG	EUP00W110035	119	CYCLE HELIX - B&D TEST	Cycle OK
120	00GH003C.LOG	EUP00W110035	120	CYCLE 134°C	Cycle OK
121	00GH003D.LOG	EUP00W110035	121	CYCLE 134°C	Power failure
122	00GH003E.LOG	EUP00W110035	122	CYCLE 134°C	Cycle OK
123	00GH003F.LOG	EUP00W110035	123	CYCLE 134°C	Cycle OK
124	00GH003G.LOG	EUP00W110035	124	CYCLE 134°C	Cycle OK
125	00GH003H.LOG	EUP00W110035	125	CYCLE 134°C	Cycle OK
126	00GH003I.LOG	EUP00W110035	126	CYCLE 134°C	Cycle OK
127	00GH003J.LOG	EUP00W110035	127	CYCLE 134°C	A001
128	00GH003K.LOG	EUP00W110035	128	CYCLE 134°C	Cycle OK
129	00GH003L.LOG	EUP00W110035	129	CYCLE 134°C	Cycle OK
130	00GH003M.LOG	EUP00W110035	130	CYCLE 134°C	Cycle OK

Figure 5: browsing folder

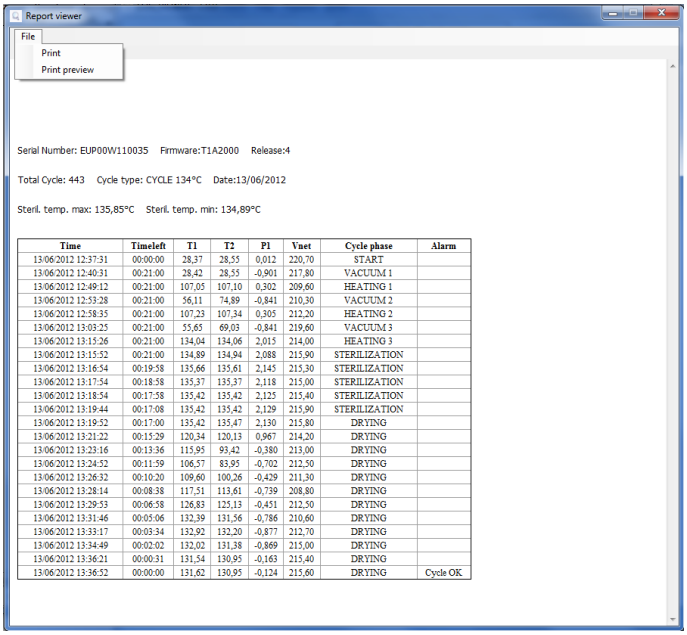
Log files are showed as a list that provides a preview with serial number of sterilizer, cycle number, kind of cycle and the outcome. By single-click on a list item, the detailed report of corresponding log is displayed, as showed in Figure 3.

In this case, on the left of the box that shows the kind of cycle, is displayed the *Back* button to come back to browsing window.

During the folder browsing, *Options* item is present in menu bar and allows access to two functions: *Make Report* and *Make Log PDF*.

5. MAKE REPORT

During log viewing, by selecting from menu *Options* → *Make Report*, the program returns a table with all cycle data and show them in a new window (Figure 6).



Time	Timeleft	T1	T2	P1	Vnet	Cycle phase	Alarm
13/06/2012 12:37:31	00:00:00	28,37	28,55	0,012	220,70	START	
13/06/2012 12:40:31	00:21:00	28,42	28,55	-0,901	217,80	VACUUM 1	
13/06/2012 12:49:12	00:21:00	107,05	107,10	0,302	209,60	HEATING 1	
13/06/2012 12:53:28	00:21:00	56,11	74,89	-0,841	210,30	VACUUM 2	
13/06/2012 12:58:35	00:21:00	107,23	107,34	0,305	212,20	HEATING 2	
13/06/2012 13:03:25	00:21:00	55,65	69,03	-0,841	219,60	VACUUM 3	
13/06/2012 13:15:26	00:21:00	134,04	134,06	2,015	214,00	HEATING 3	
13/06/2012 13:15:52	00:21:00	134,89	134,94	2,088	215,90	STERILIZATION	
13/06/2012 13:16:54	00:19:58	135,66	135,61	2,145	215,30	STERILIZATION	
13/06/2012 13:17:54	00:18:58	135,37	135,37	2,118	215,00	STERILIZATION	
13/06/2012 13:18:54	00:17:58	135,42	135,42	2,125	215,40	STERILIZATION	
13/06/2012 13:19:44	00:17:08	135,42	135,42	2,129	215,90	STERILIZATION	
13/06/2012 13:19:52	00:17:00	135,42	135,47	2,130	215,80	DRYING	
13/06/2012 13:21:22	00:15:29	120,34	120,13	0,967	214,20	DRYING	
13/06/2012 13:23:16	00:13:36	115,95	93,42	-0,380	213,00	DRYING	
13/06/2012 13:24:52	00:11:59	106,57	83,95	-0,702	212,50	DRYING	
13/06/2012 13:26:32	00:10:20	109,60	100,26	-0,429	211,30	DRYING	
13/06/2012 13:28:14	00:08:38	117,51	113,61	-0,739	208,80	DRYING	
13/06/2012 13:29:53	00:06:58	126,83	125,13	-0,451	212,50	DRYING	
13/06/2012 13:31:46	00:05:06	132,39	131,56	-0,786	210,60	DRYING	
13/06/2012 13:33:17	00:03:34	132,92	132,20	-0,877	212,70	DRYING	
13/06/2012 13:34:49	00:02:02	132,02	131,38	-0,869	215,00	DRYING	
13/06/2012 13:36:21	00:00:31	131,54	130,95	-0,163	215,40	DRYING	
13/06/2012 13:36:52	00:00:00	131,62	130,95	-0,124	215,60	DRYING	Cycle OK

Figure 6: report window

From this window is possible display a print preview (*File* → *Print preview*) or print (*File* → *Print*).

6. MAKE PDF

During the viewing of a log, by selecting from menu *Options* → *Make PDF*, *Logviewer* make a PDF file which contains the cycle details (Figure 7).

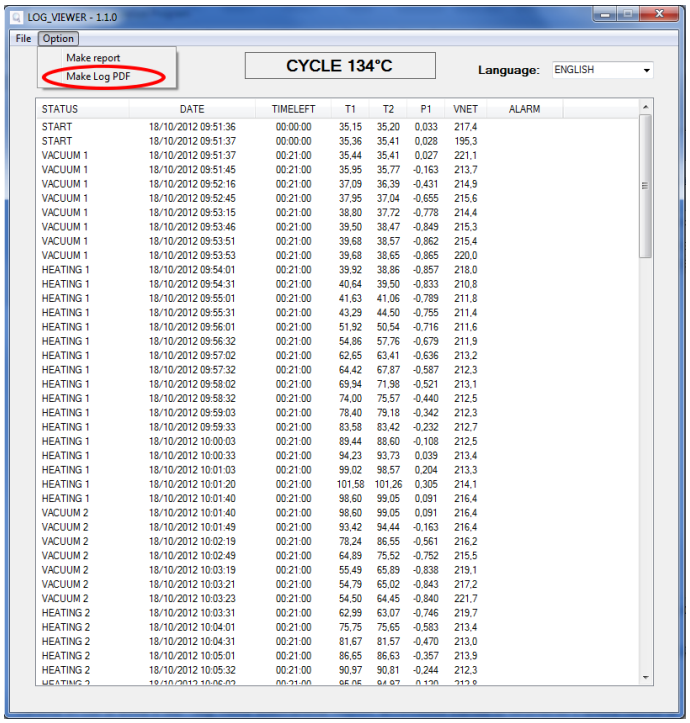


Figure 7: menu Options, the item Make PDF

The PDF file will be created in the same folder where **.log* file is located, in sub-folder *Report*, accessible by *File Manager* tool in Windows. If *Report* folder doesn't exist, it will be created. At the end of the process, the program open the destination folder by a window of *File Manager* in Windows.

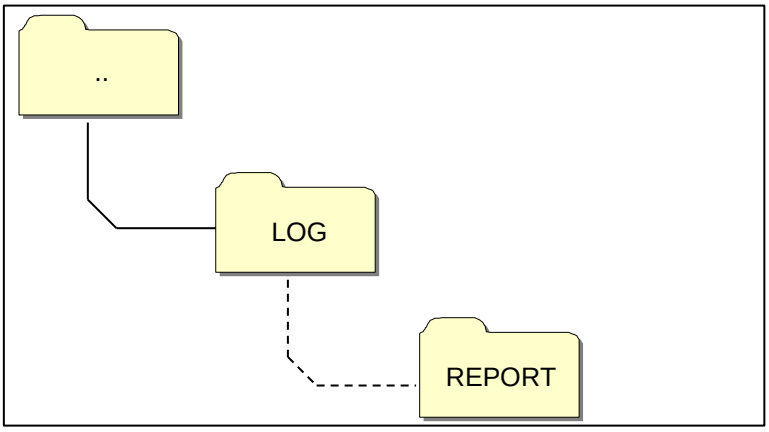


Figure 8: when PDF file is created, the program saves the file Report folder, inside the log file origin folder

The created file name is compound by *serialnumber-cyclenumber.pdf*.

7. MAKE FOLDER PDF

In browsing folder mode is available the *Make folder PDF* function in *Options* item of menu bar.

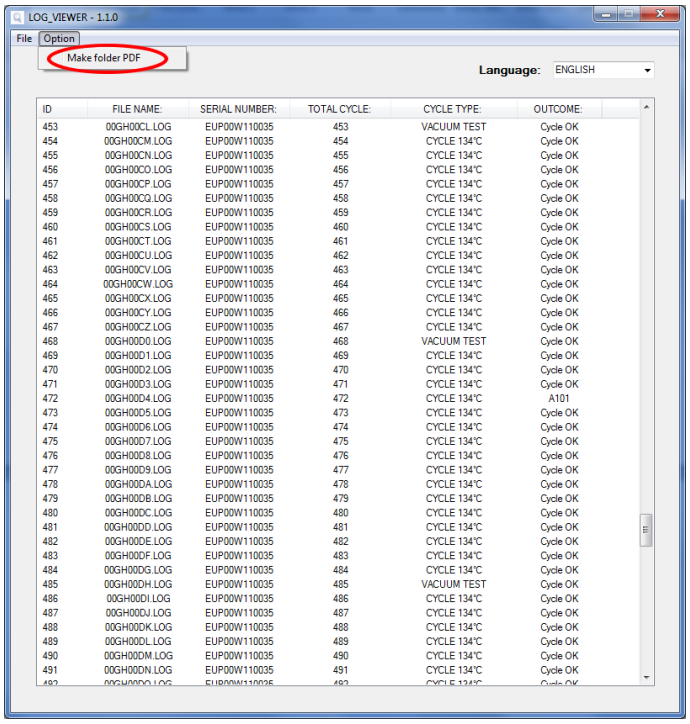


Figure 9: *Make folder PDF* function, visible in browsing folder mode

On mouse click, a loading bar that indicates the progress of the process is displayed. The PDF files will be created within the browsed folder, in subfolder *Report*, accessible by *File Manager* tool of Windows. If the folder *Report* doesn't exist, it will be created.

At the end of the process, the program opens the destination folder by a window of *File Manager* in Windows.

The created file name is compound by *serialnumber-cyclenumber.pdf*.

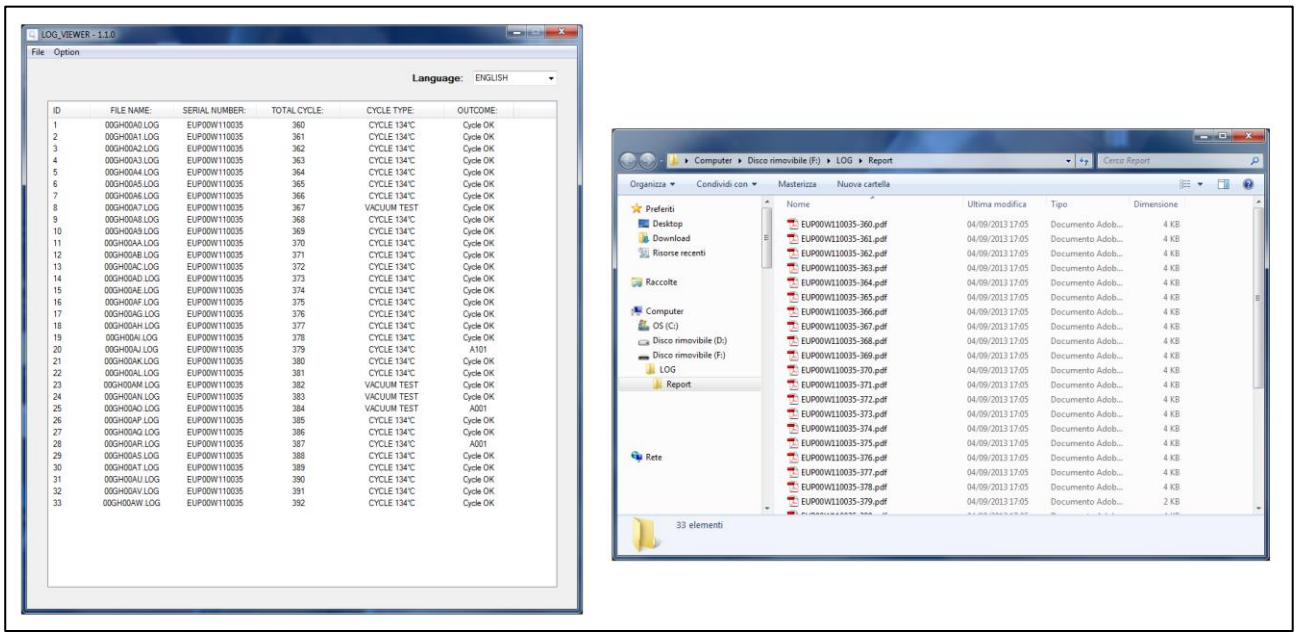


Figure 10: Browsed folder with *LogViewer* and destination folder of made files.