



cloudless

test report analysis software

CBL Electronics srl



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Introduction

Cloudless is a software application of test reports analysis. It is developed by CBL Electronics srl using the most advanced software architecture and tested with a very important lot of test reports.

Cloudless imports automatically you test reports and analyses the data included. Overall the data of you test report, cloudless make available the SPC (Statistic Process Control) results.

The cloudless analysis is available by four main pages: production, historical, statistic and SPC

This document describes in detail the cloudless functionality. For any question, please contact the CBL Electronics srl (www.cblelectronics.com) or the cloudless developer team (cloudless.dreamtest.it)

Product Identification

The following table reports the cloudless identification data:

Commercial name	cloudless
Technical name	CBL-SWT0004
Commercial name	Umbria
Technical name	1.0

Version history

The following table reports the cloudless version history

Commercial version	Technical version	data	Description
Umbria	1.0	29/09/2016	First issue



Setup

From the setup media root, start the setup.exe application.

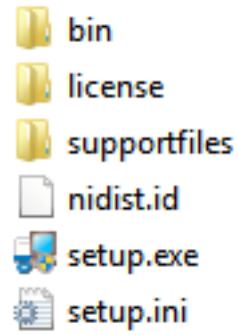


Figure 1: setup media root

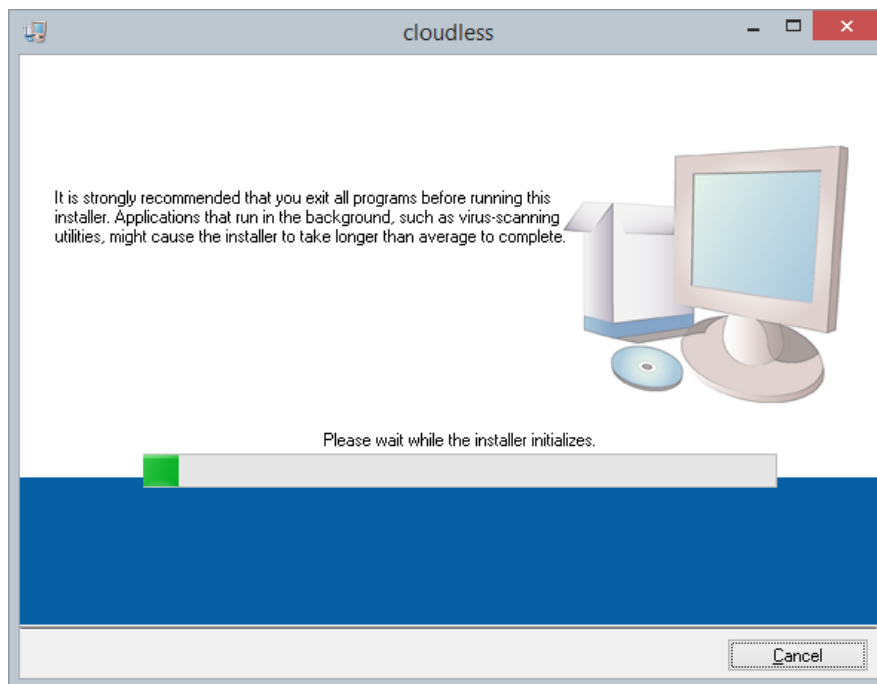


Figure 2: setup starting

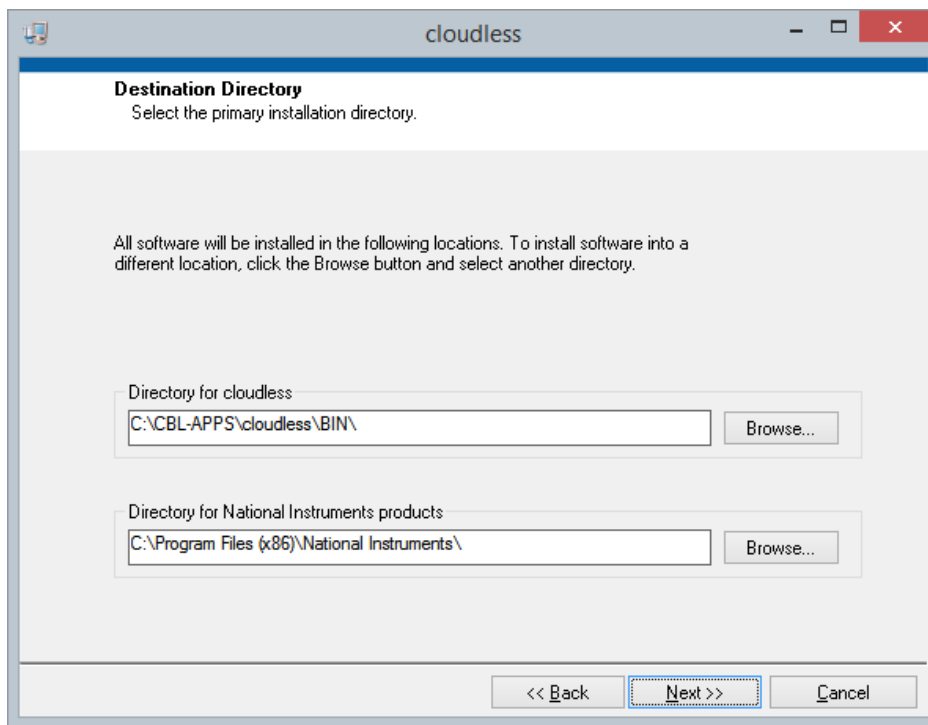


Figure 3: directory selection



Configuration

After the installation, cloudless needs configuration in order to define the adapters used to read the test reports and the folders that contains the test reports to import.

An adapter is a simple function that read your test report and translate the contained data into the cloudless format. In other words, the adapter make ready the test report and its data to cloudless storage and manage.

The adapters can be written autonomous or requested directly to CBL Electronics srl.

In order to configure the cloudless adapters, please perform the following procedure:

1. Start the cloudless application from the window programs menu or typing “cloudless” directly in the window start menu (Figure 4)

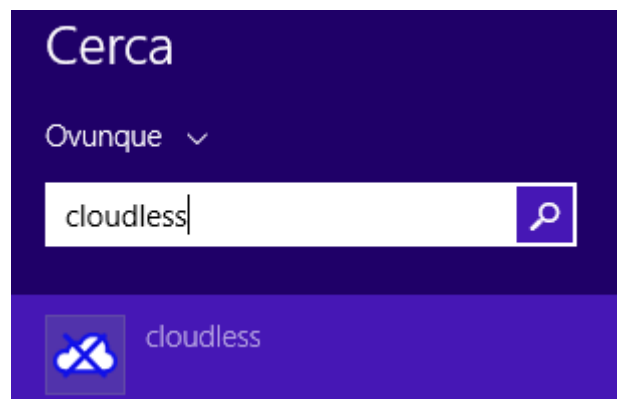


Figure 4: finding cloudless application

2. After the cloudless start, press the adapters configuration button (Figure 5), at the left-top main window: the sub window of Figure 6 will appears on the display (it is normal that the list is empty after the cloudless installation; no adapters are pre-configured)

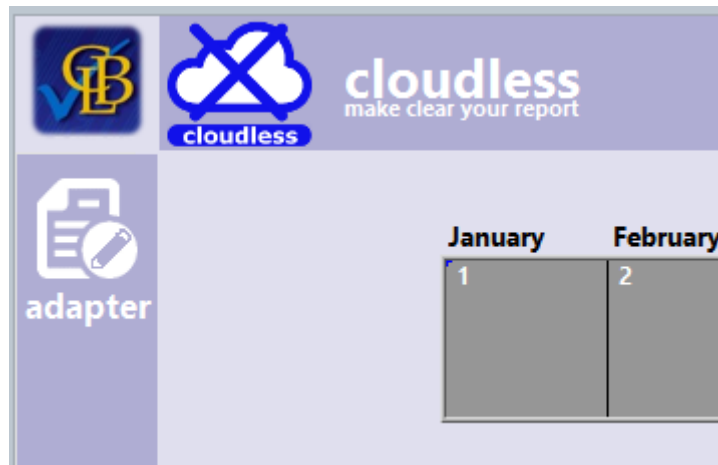


Figure 5: adapters configuration button

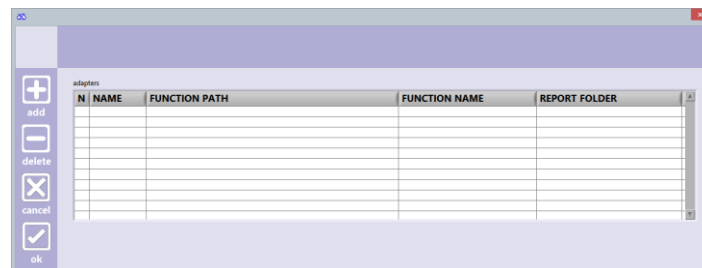


Figure 6: configured adapters list

3. From the sub window of Figure 6 press the **add** button disposed at the left-top: the sub window of Figure 7 will appears on the display.
4. In the adapter selection sub window (Figure 7) perform the following operations:
 - a. Insert a mnemonic name for the adapter
 - b. Select the adapter function using the button at the right of the **function file path** field
 - c. Select the folder that contains the test reports that must be loaded using this adapters. For the selection you can use the button at the right of the **reports folder** field

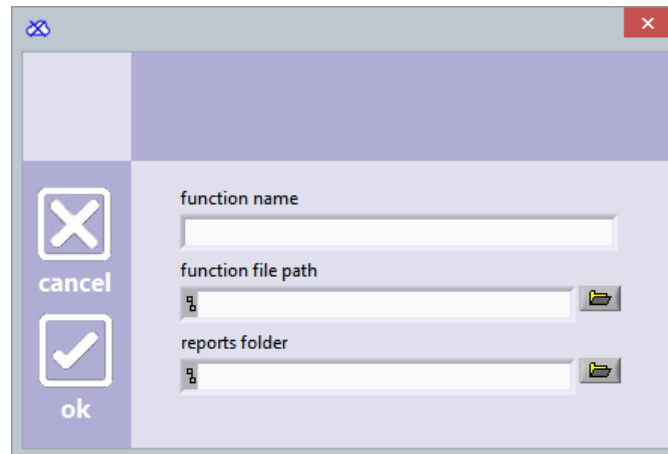


Figure 7: adapter selection

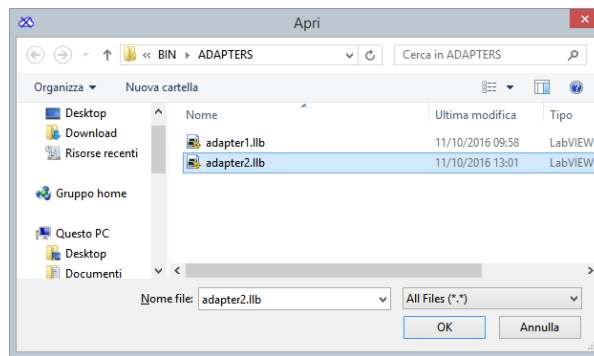


Figure 8: adapter function selection, llb from disk

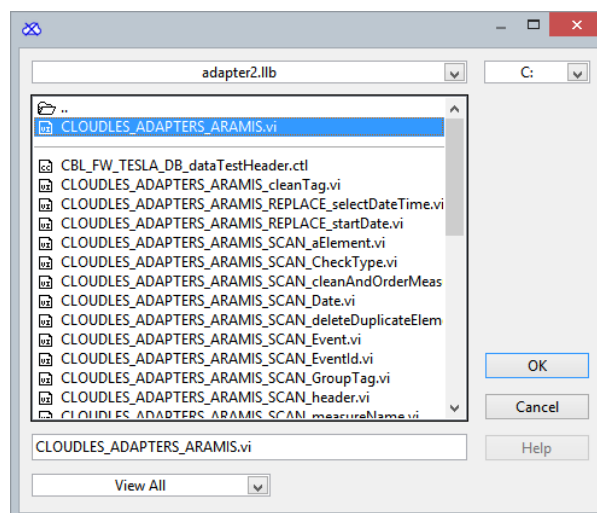


Figure 9: adapter function selection, function into the llb



5. From the sub window of Figure 7 press the **ok** button: the window of Figure 7 will close and the sub window of Figure 6 returns active.
6. Repeat the operations 3, 4 and 5 for each adapters and/or test reports folders to configure
7. Press the **ok** button of window of of Figure 6 to save the adapters configuration. The main page of cloudless becomes active and ready to start

Cloudless check the test report folders each minute and all new test reports present into the configured folder will be imported.

NOTE: after configuration, cloudless imports automatically all test report present into the configured folders. The first import may employ a lot of time, proportionally to number of the test reports to import (some second to import a test report of mean complexity, estimated).



Importing test reports

Cloudless check the test report folders each minute and all new test reports present into the configured folder will be imported.

No user operation are required. The new data, imported by new test reports, will be automatically available at the end of import sequence

NOTE: after configuration, cloudless imports automatically all test report present into the configured folders. The first import may employ a lot of time, proportionally to number of the test reports to import (some second to import a test report of mean complexity, estimated).



Navigation

At the top side of the cloudless window is present the navigation bar. the following selections:

1. Click in the cloudless icon or text to display the about page (Figure 11) to display the cloudless version
2. Click in the text to select the subpage to select. The available selections are:
 - a. Production
 - b. Historical
 - c. Statistic
 - d. Capability
3. The field reports the number of measures out of control limits. Click in the field to display the details page (Figure 12)

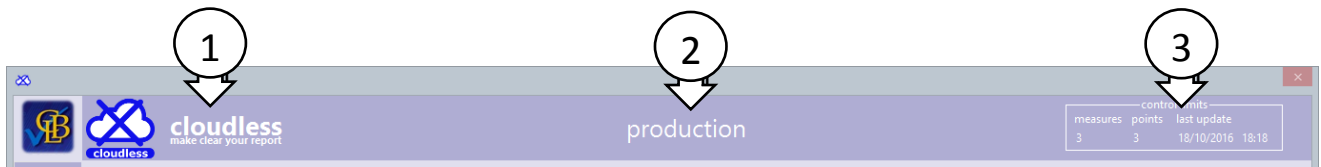


Figure 10: navigation bar



Figure 11: about page

STEP	MEASURE NAME	PP	PPK	CP	CPK	USL	LSL
STEP 7	MEASURE 1	2.02	1.98	NaN	NaN	54.00	68.00
STEP 7	MEASURE 0	0.99	0.97	NaN	NaN	45.00	55.00
STEP 8	MEASURE 4	3.12	3.11	NaN	NaN	81.00	99.00

Figure 12: measure out of control limits

Production

The production sub page (Figure 13) is displayed selecting the item “production” from the field 1

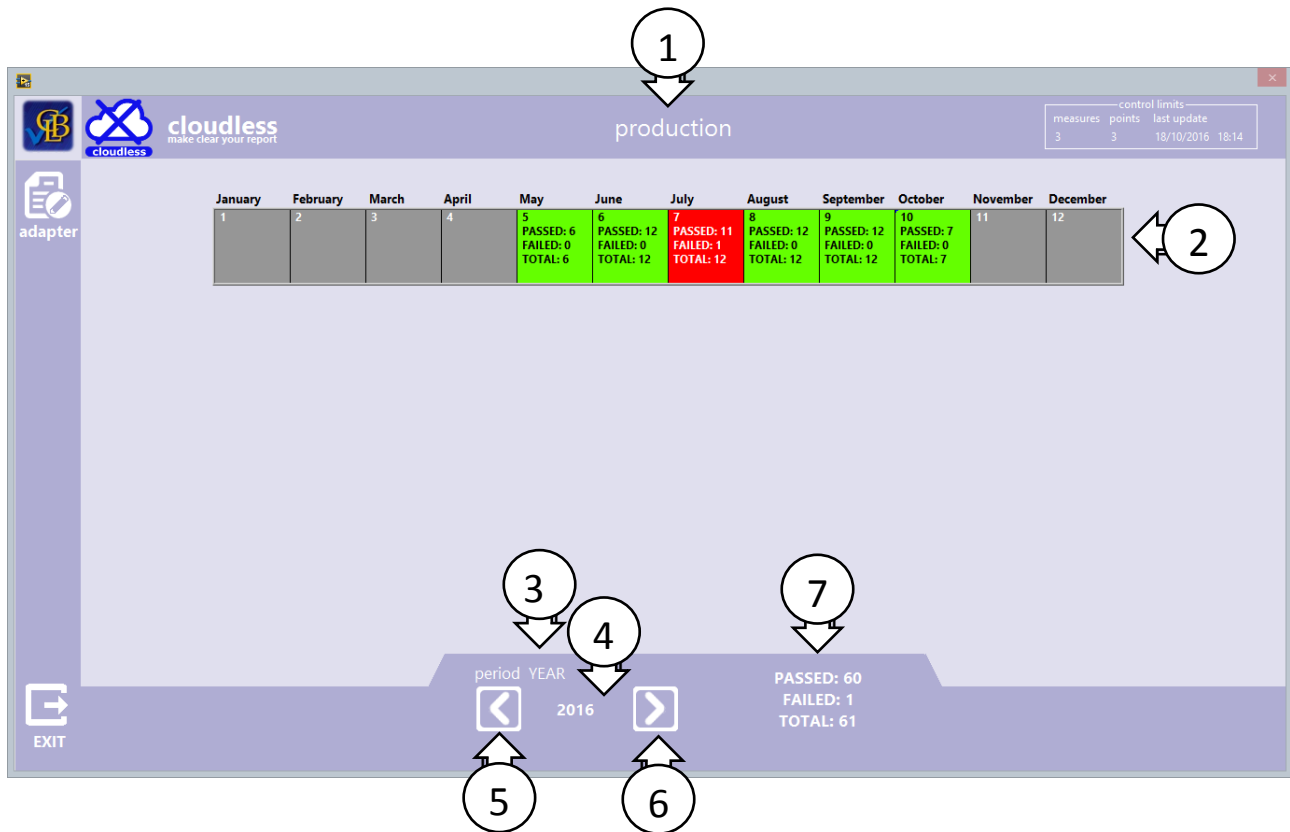


Figure 13: production sub page

The controls available in the production sub page are:

1. Sub page selector (always displayed)
2. Consumptive results for the year selected (displayed in field 4): reports the passed, and failed test executed month by month (if the field 3 selects YEAR as period)
3. Period selection:
 - a. YEAR: to display the production month by month for the selected year (Figure 13)
 - b. MONTH: to display the production day by day for the selected month (Figure 14)
 - c. DAY: to display the production hour by hour for the selected day (Figure 15)
4. Selected period (year, month or day)
5. Previous year, month or day
6. Next year, month or day
7. Consumptive result for the period selected (year, month or day)



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Figure 14: production day by day

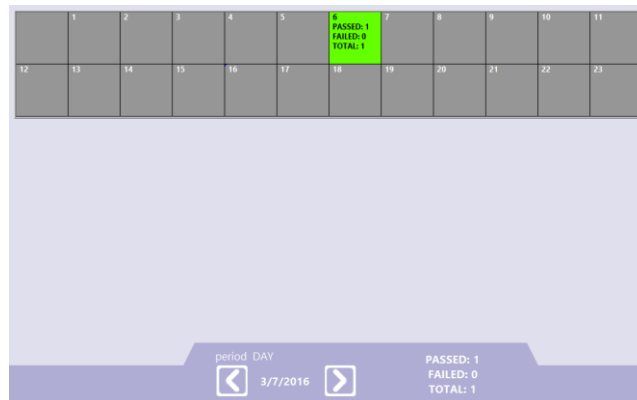


Figure 15: production hour by hour



Historical

Select from the top-side bar the item **historical** (1): the subpage of Figure 16 will appear on the video. In this subpage there are the following info:

1. Selected subpage
2. All part numbers present into the database
3. All serial number of the selected part number (in the list 2) tested
4. All test sequences executed on the selected serial number (in the list 3)
5. All dates of test sequences execution for the sequence select (in the list 4)
6. All steps executed for the selected test session (in the list 5)
7. All measures of the selected step (in the list 6)
8. Historical values for the selected measure (in the list 7), see 11 for more details
9. Histogram distribution of the values for the selected measure (in the list 7)
10. Buttons for exporting data:
 - a. Report: press this button to generate the test report (in the cloudless format)
 - b. Measure: press this button to export all historical values of the selected measure
11. Historical values navigation section: the items are:
 - a. First row reports the info for the value selected in the graph 8 by the cursor (PN, SN, sequence and date)
 - b. Second row is composed by the following buttons:
 - i. Prev_ move the cursor of 8 to previous value
 - ii. Min: move the cursor of 8 to min value
 - iii. Max: move the cursor of 8 to max value
 - iv. Next: move the cursor of 8 to next value
 - v. Open: open the report that has generated the selected value by the cursor of 8
12. The details section reports the following buttons:
 - a. History: press this button to enlarge the historical values graph (Figure 17)
 - b. Historical: press this button to enlarge the historical values graph (Figure 18)

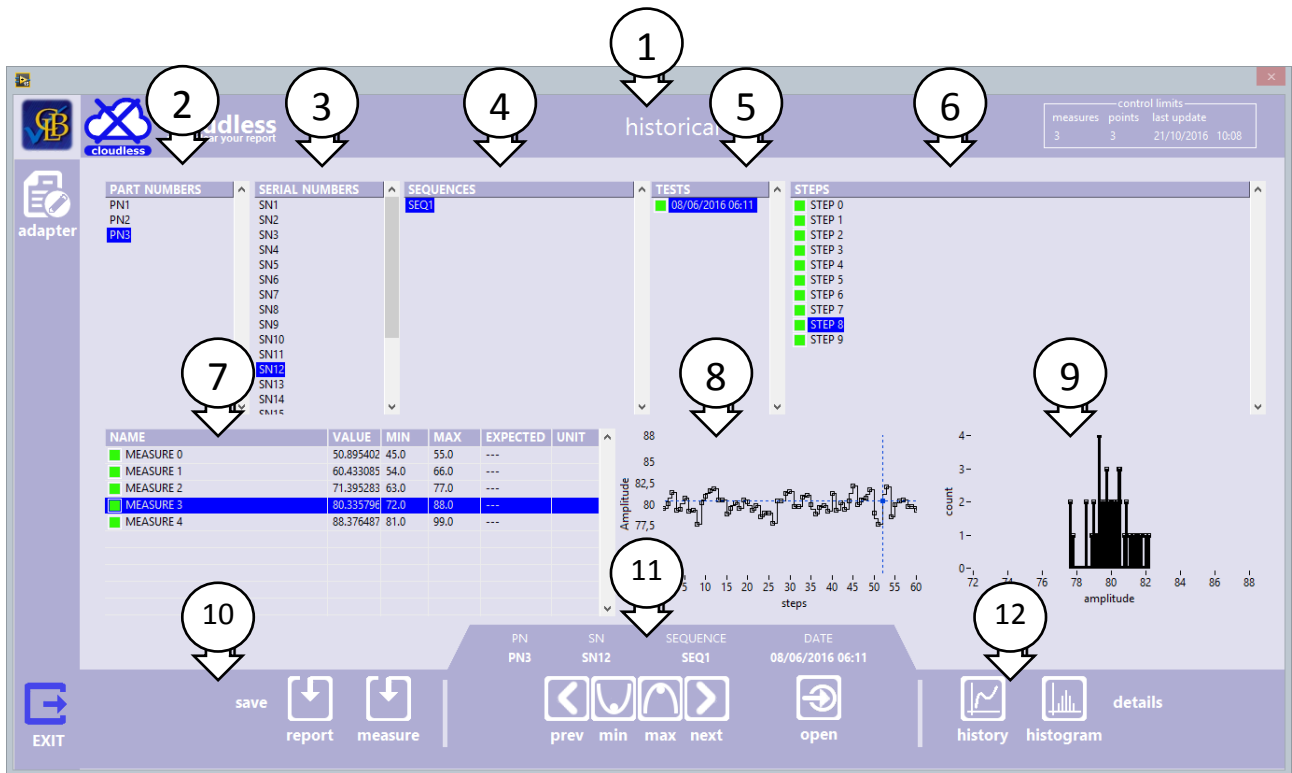


Figure 16: historical subpage

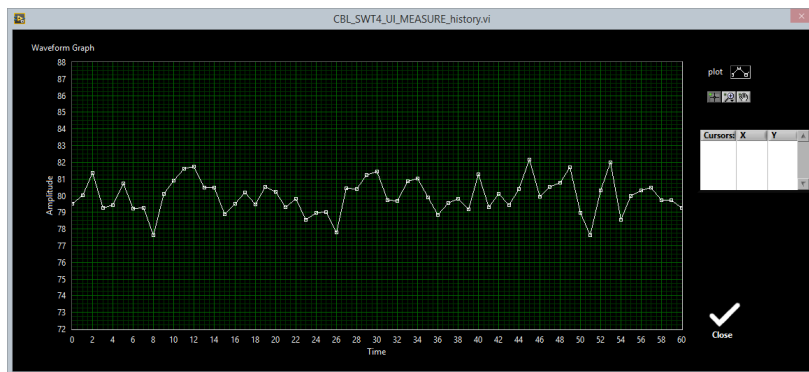


Figure 17: historical values detail

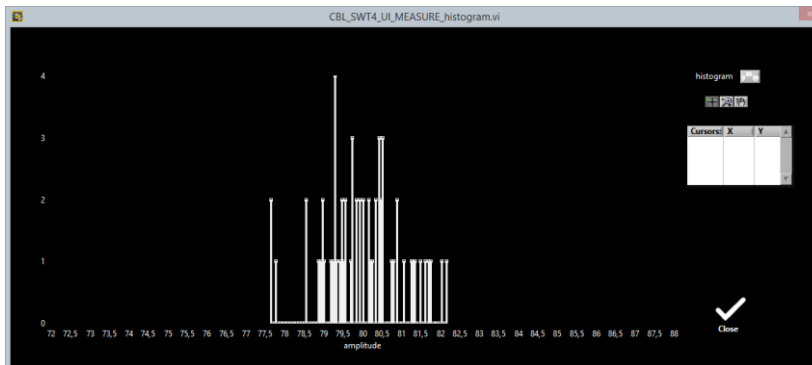


Figure 18: histogram values detail

Statistic

Select from the top-side bar the item **statistic** (1): the subpage of Figure 19 will appear on the video.

This section is dedicated to pass/fail statistic. For each step is calculated the fail occurrence in order to discover, in fast and easy way, the steps with the major probability of fails.

In this subpage there are the following info:

1. Selected subpage
2. List of all test sequences imported into the database
3. List of all steps of the selected sequence in the list 1
4. External ring: each section of this ring reports, with its color, the probability of failures (green: never failed; red: most failed step)
5. Internal circle: reports the total of PASS and FAIL for the selected steps in the list 3 or in the area 6
6. Move the cursor to select the relative steps
7. Export buttons:
 - a. All: export on the disk all data in the table 3
 - b. Fails: export only the fails reported into the table 3

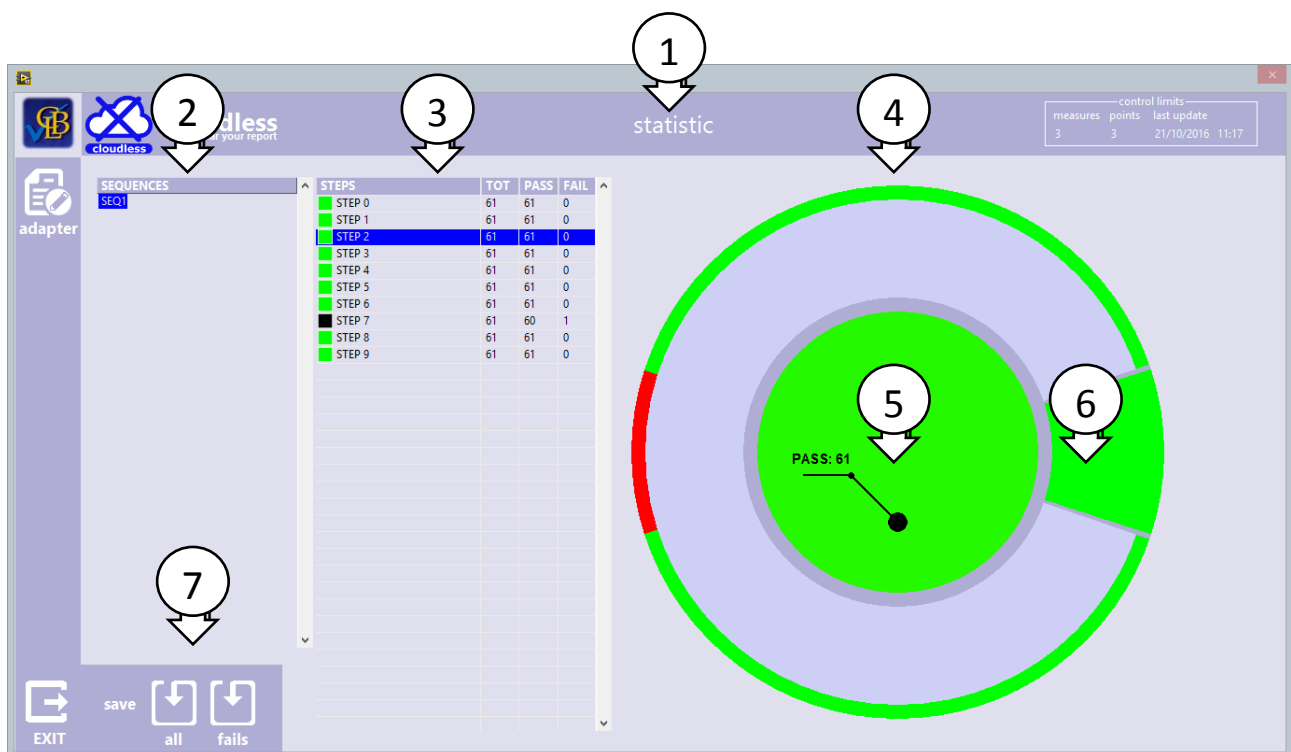


Figure 19: statistic subpage



Statistic Process Control

Select from the top-side bar the item **capability** (1): the subpage of Figure 20 will appear on the video.

This section is dedicated to SPC (Statistical Process Control) analysis. For the selected measure it shows the following SPC parameters:

- Overall analysis: Standard deviation PP and PPK
- Within analysis: standard deviation CP and CPK
- X chart and control limits
- S-chart and control limits

In this subpage there are the following info:

1. Selected subpage
2. List of all measures; select a measure to view the details
3. Test and measure name of the selected measure in the table 2
4. All data and analysis result of the selected measure:
 - a. USL and LSL: Upper limit as defined by the test admissibility
 - b. Overall analysis
 - i. stDev: standard deviation calculated on all measured values
 - ii. PP and PPK: capacity process calculate on all measured values
 - c. Within analysis:
 - i. stDev: standard deviation calculated on the single group of measured values
 - ii. CP and CPK: capacity process
 - d. X-chart
 - i. UCL and LCL: control limits for the mean value of the subgroups
 - ii. X: mean of all groups
 - e. S-chart
 - i. UCL and LCL: control limits for the standard deviation of the subgroups
 - ii. X: mean of all standard deviations of each single group
5. Historical values of the selected measure
6. Historical values of the selected measures, grouped
7. Histogram of the selected measures
8. X-chart
9. S-chart
10. Function buttons:
 - a. Table: export all values reported into the table 2
 - b. History: export, for the selected measure, all analysis data and all measured value
 - c. Prev: move to previous CPK value
 - d. Min: find the min CPK value
 - e. Next: move to next CPK value

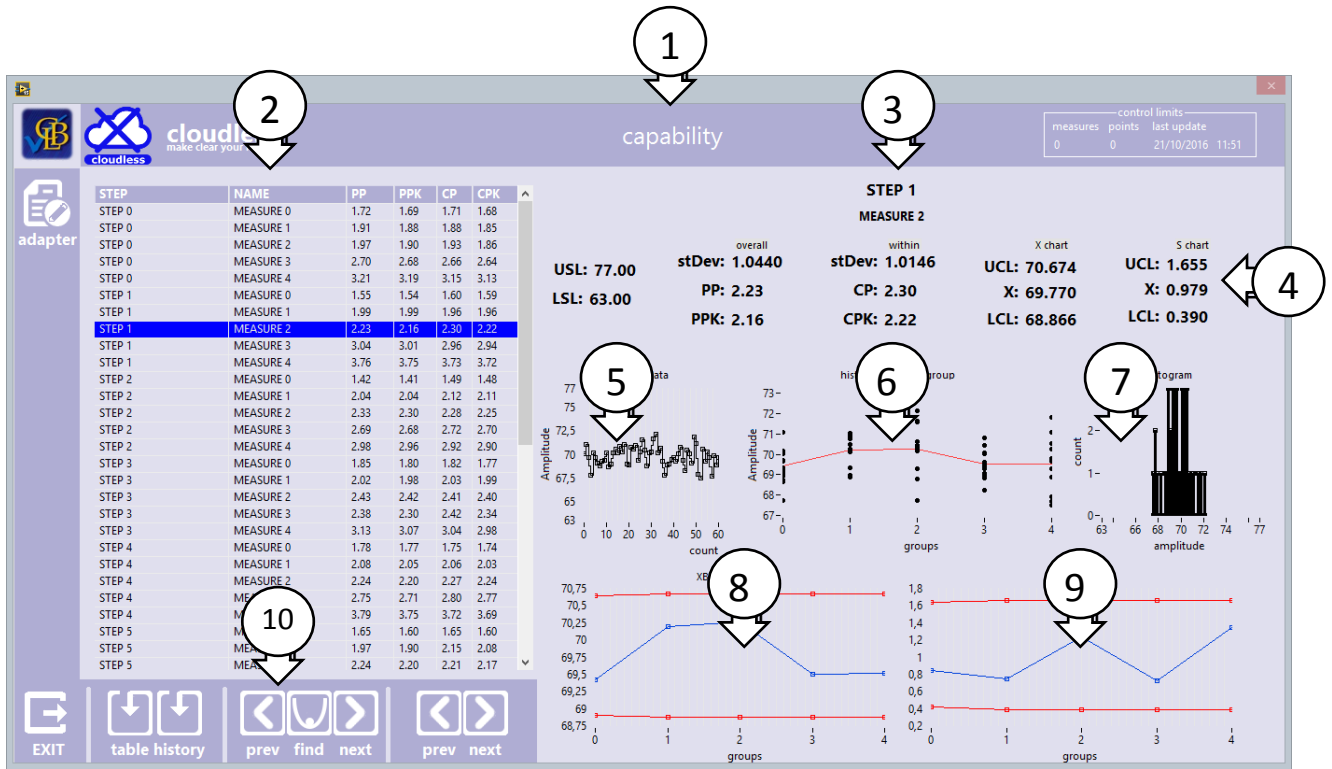


Figure 20: capability subpage



Technical support

Cloudless is projected and developed using the most modern software techniques and it have passed several and sever factory tests

Contacts CBL Electronics srl in order to obtain technical support for any questions or to report any bugs.

Refer the cloudless web page (cloudless.dreamtest.it) to check the upgrade of your version and the availability of new version.

References:

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www.cblelectronics.com

www.dreamtest.it