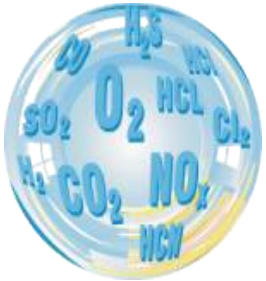

PHOTON_COM – PC SOFTWARE

User manual

Version: 1.0
08/2017
Software version: 1.5.5

madur

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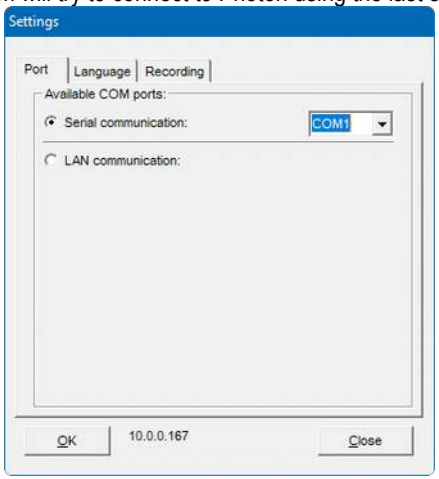
1. INTRODUCTION

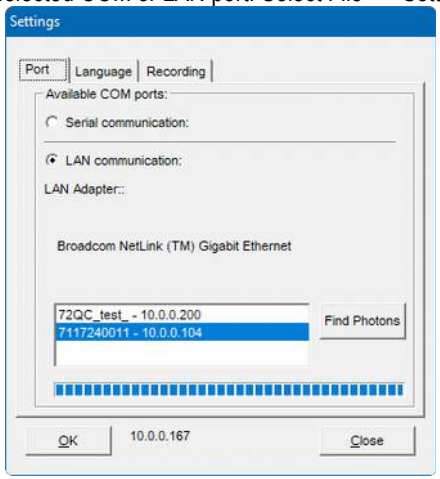
Photon PC software provides PC communication with both portable and stationary Photon analysers. It supplements analyser with additional options and allows to perform service actions, like calibration with gases (available only for trained personnel)

Installation file can be found on software CD (attached with every analyser) and on madur **webpage**.

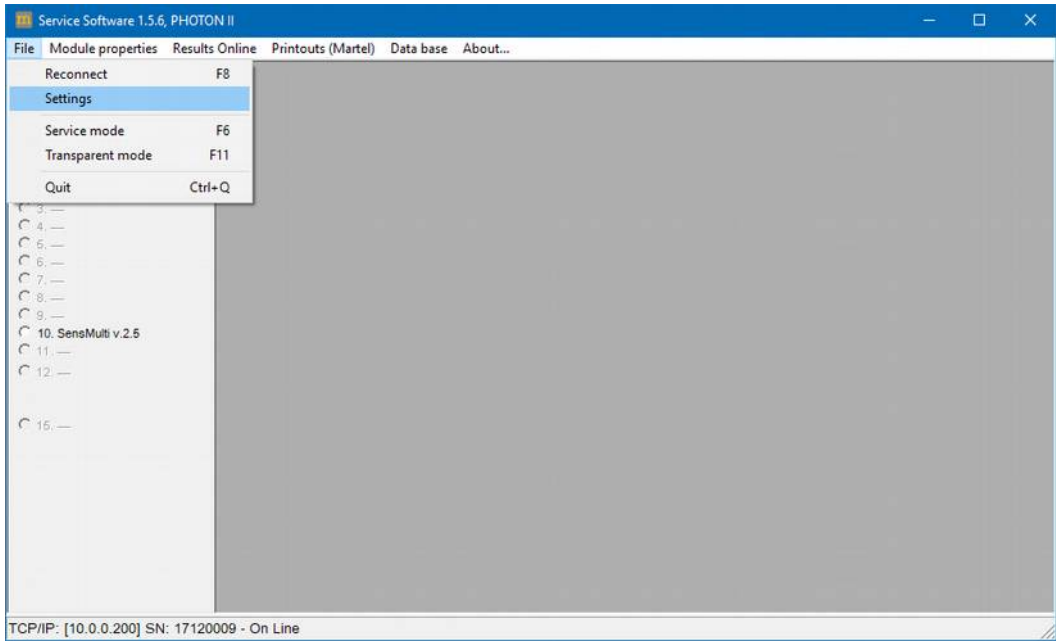
2. CONNECTING TO PHOTON

Program will try to connect to Photon using the last selected COM or LAN port. Select File → Settings.



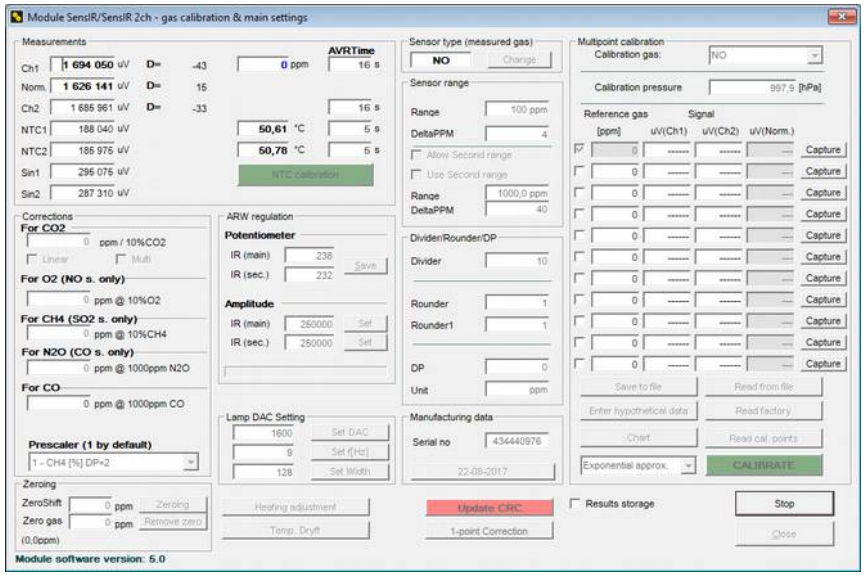


Either select proper COM port to communicate with Photon or
select LAN connection and then allow program to find Photon analysers in your LAN network – select the one you wish to work with from a list and confirm your selection with OK button.
In the bottom bar of the main window, in its left, program informs about communication status IP address of connected Photon, its serial number and status, e.g.:
TCP/IP: [10.0.0.104], SN: 7117240011 – On Line

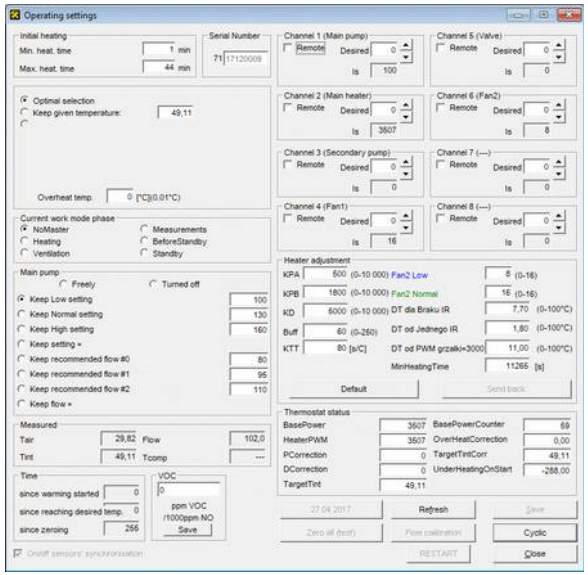


3. MODULE PROPERTIES

Allows to view (and modify in service mode) settings and signals of a selected analyser's module. As this option is strictly for service purposes, it will not be analysed in details in this manual.



Calibration window (view mode) of NO sensor



Calibration window (view mode) of analyser' CPU

4. PROGRAM LANGUAGE

1. From main menu, select: File → Settings.
2. Select the second tab: Language
3. From drop-down menu select your language
4. Close Settings window

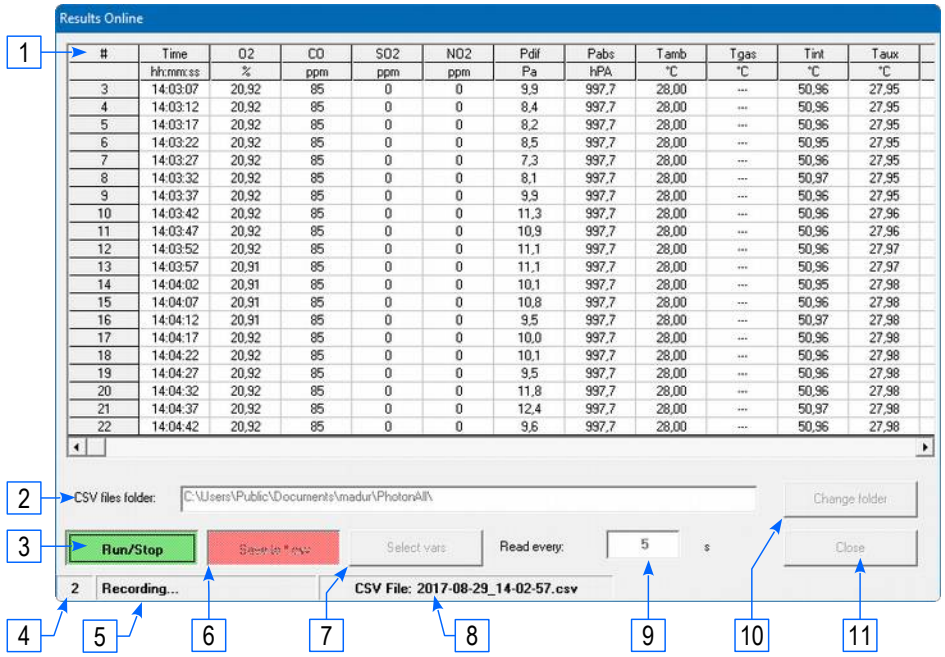
madur can share language files for translation in order to prepare your language version – please contact our sales team:

sales@madur.com

5. RESULTS ONLINE

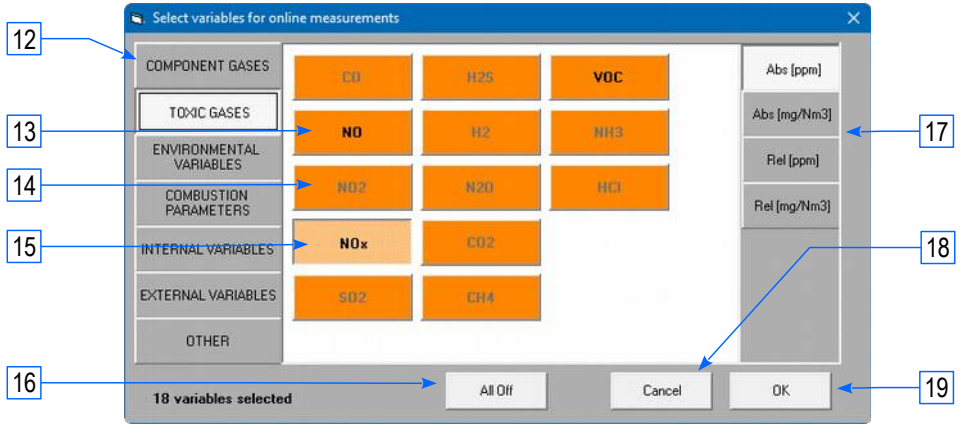
Photon All program allows to view results measured by analyser on PC, in a real time and store them directly to hard drive as CSV file.

1. Results: number, time and selected variables
2. Current location of folder where CSV files are stored
3. Start / stop online readings
4. Time until the next result will be displayed (and stored)
5. Status info
6. Enable (red button) / Disable (grey) storing results to CSV file
7. Selection of variables (sensors and calculated values) that will be presented online and stored to CSV file.
8. Name of the currently processed CSV file. File is stored in folder (2)
9. Interval between online readings (adjustable in range 5÷600sec)
10. Button to select storage folder (2)
11. Button to close window.



Select vars - User can select which variables (measured by analyser's sensors, calculated values) will be presented on PC screen and stored in CSV file.
The structure of variables is same as in Photon gas analyser.

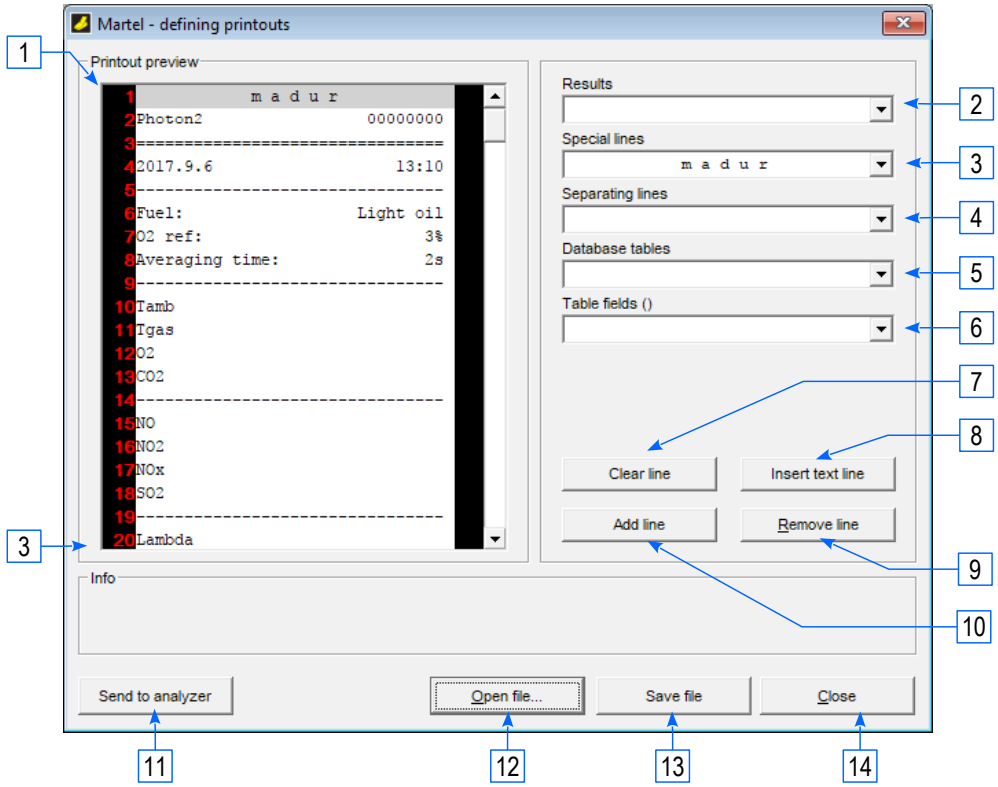
12. Variables divided into different blocks
13. Available (e.g. connected analayser is equipped with this sensor) but not selected variable
14. Unavailable variable
15. Selected variable
16. Cancel all selected variables (clear all selections)
17. "Unit switch". It is possible to monitor and store e.g. NO in ppm and NOx in mg/m3
18. Cancel all changes and exit
19. Accept changes and exit



6. TEMPLATES FOR PORTABLE PRINTER

One of optional accessories for Photon analyser is Martel portable printer. User can define how the printout will look like. It is possible to define many printout templates, transfer them to the analyser and select them according to needs directly in the analyser. The length of printout is limited to XX lines.

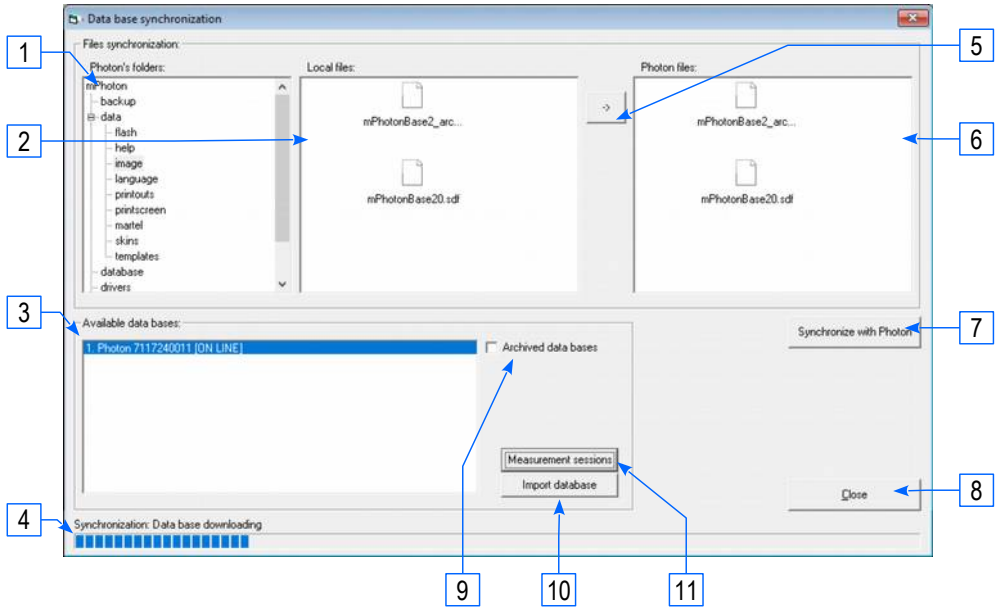
1. Template preview
2. Results – variables measured by sensors or calculated values
   Drop-down list contains all possible variables (independently on analyser's configuration), therefore if analyser does not measure / calculate a variable from template, result will be replaced with dashes ('-----')
3. Special lines – predefined informations, like time and date of measurement, device name and serial number, etc.
4. Separating lines – allow to divide printout into sections
5. Database tables – allows to select variable from analyser's database, e.g. fuel parameters, company data
6. Table fields – fields available in the base selected in (5), e.g. CO_{2max} parameter characteristic for the selected fuel, name and address of user's company, etc.
7. Clear line (make it blank)
8. Insert text line – allows to enter user defined text
9. Remove selected line
10. Insert a new line below the selected one (in example to the right it will create new line #4)
11. Send currently created template directly to connected analsyer (template name: FromPC.tmp)
12. Open template from a file
13. Save current template to a file
14. Close window



7. DATA BASE – SYNCHRONISATION

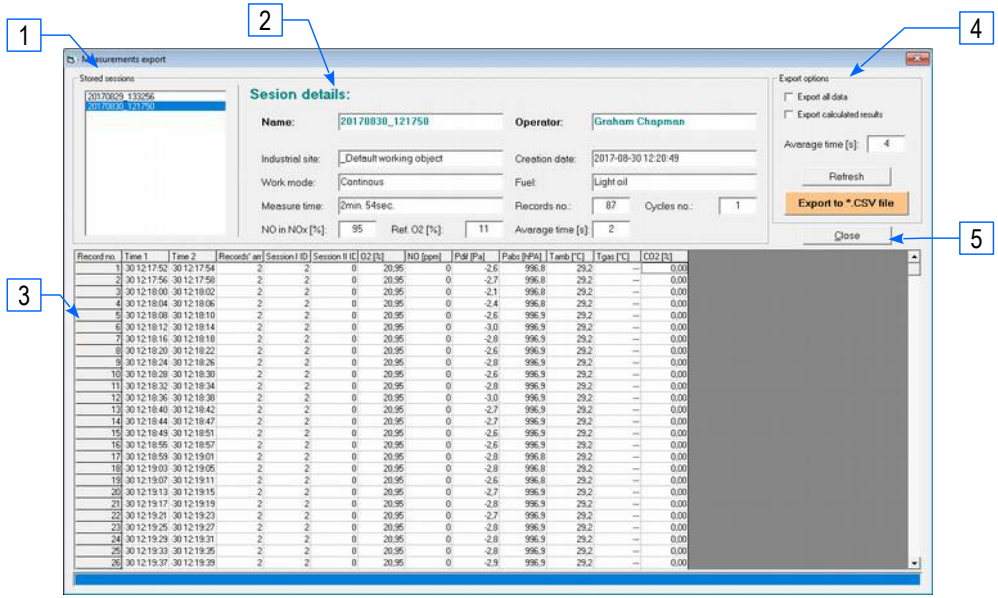
Photon Com program allows to back-up all important data from Photon analyser to user's PC. Program also allows to send files from PC' hard disk to analyser's memory.

1. Tree-structure of folders (both in Photon analyser and on PC)
2. List of files located in a selected folder (1) on PC
3. List of databases stored in PC (default folder: *C:\Users\Public\Documents\madur\PhotonAll*)
4. Synchronisation progress bar
5. Synchronisation buttons – allow to send selected file from PC to analyser or inversely
6. List of files located in a selected folder (1) in analyser
7. Synchronise data with currently connected device
8. Close window
9. Show database backups (sdf files) created in Photon manually (these files are stored in different folders)
10. Import database – add entry (folders and files) with content of a selected sdf file
11. Data Base – Measurement sessions - please see chapter 7.1 for more details



7.1. Data Base – Measurement sessions

After data synchronisation, it is possible to export measured data to a csv file from PC using window “Data Base → Measurement sessions”



1. List of available measurement sessions
2. Detailed information about selected session (name = date and time of session, name of user who took measurements, fuel parameters, etc.
3. View of stored results – results in a view are exported to csv. View and therefore csv outcome can be modified with (4. Export options)
4. Export options
   - Export all data – if checked, csv file will store all possible variables (including those not installed in specific analyser – results replaced with dashes “---”)
   - Export calculated results – includes calculated values like stack loss, efficiency, etc.
   - Set averaging time
   - Refresh - refresh the View (3)
   - Export to *.CSV file - export to csv file to a user specified folder.
5. Close window