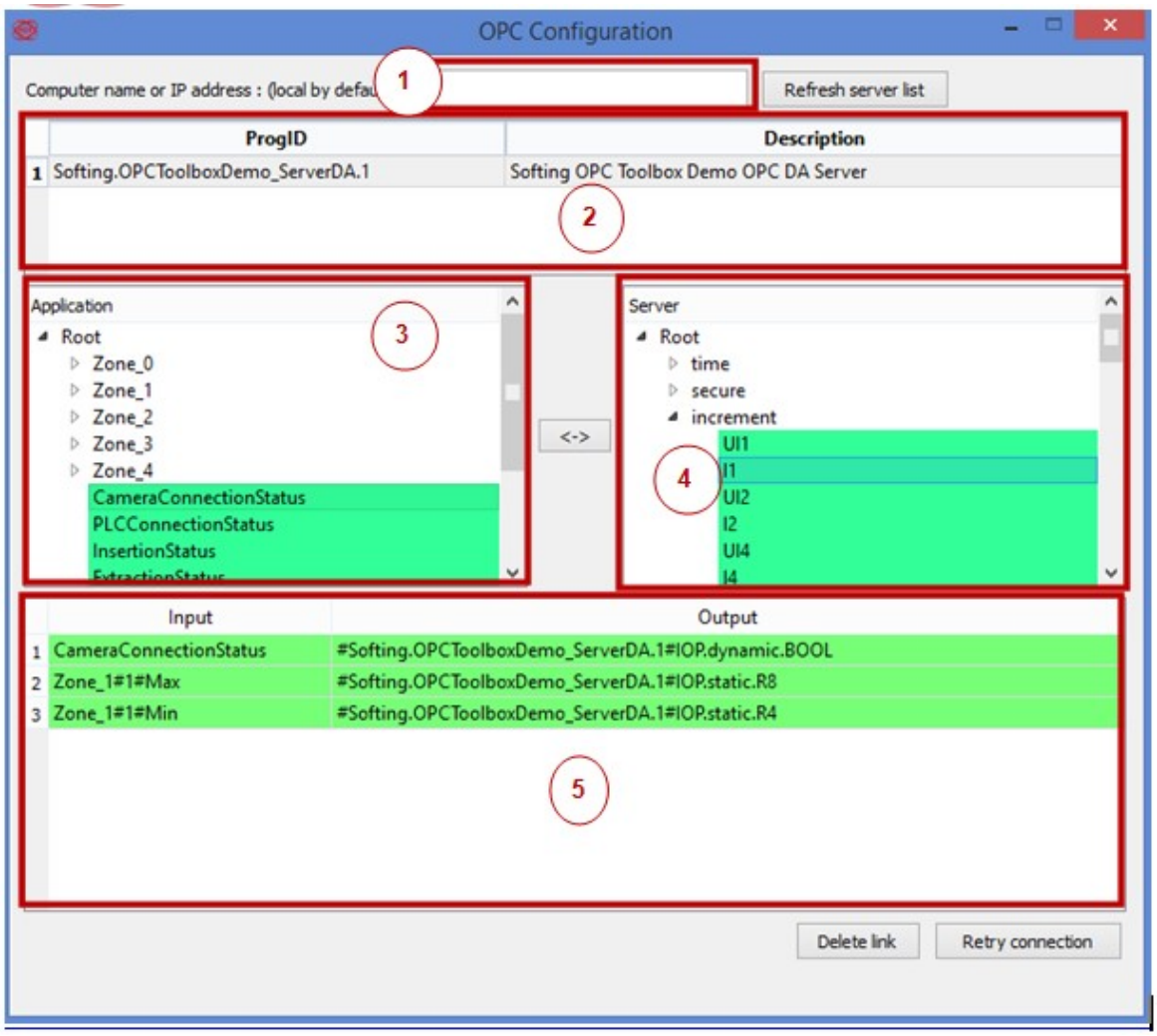
OPC Configuration

First of all, the OPC client used in PYROSCAN is based on the OPC Data Access (DA) specification and is compatible with the 2.05 and 3.00 version.

When a PYROSCAN system is equipped with the OPC Client output option, the following OPC settings icon is enabled on the main window top menu: 

To display the OPC Configuration window, click on the icon or use the function OUTPUTS / OPC Configuration.



OPC Configuration window

To configure OPC Client parameters, follow the procedure below:

- connect as an administrator (mandatory in order to modify the OPC links).
- Fill in the "Computer Name" box with the IP address or the name of the computer on your network hosting the OPC Server (1)
  - Note: If the computer name box is not filled in, the software will look for OPC servers on the computer directly (Local Host).
- Click on the “Refresh server list” button to display the list of OPC servers available on the hosting computer (2).
  - 'ProgID' is the identification of the OPC server
  - 'Description' it the description of the OPC server
- Double-click on the OPC server to connect with.
- On the right “drop-down” list (Server) (4), the variables available on the OPC server are displayed. On the left “drop-down” list (Application) (3) the variables available from the PYROSCAN system are displayed.
- In order to create OPC links between the PYROSCAN system variables and the OPC server variables, select them on both lists and click on the link button <->

- When a link is created, it is displayed on the list at the bottom of the OPC configuration window (Input - Output) (5) and highlighted in green to show that the connection has been successfully established.
    - Note: A check is made on the variables types that prevents any association of variables with incompatible type (for instance, associating a Real8 type with a Boolean variable is not allowed).
- To delete a link, simply click on one of the previously created OPC links (5) and click on the "Delete link" button.
- When a connection with a remote server has been lost, the related links will be notified and highlighted in red, and an error message will appear to notify the user that these links are not active anymore. The user can retry to connect links by clicking the button “Retry connection”.

All OPC links are saved in a configuration file so that they are reloaded automatically if the application crashes or in case the user closes the application.

Here is a description of the variables that can be sent via OPC:

Variable name	Type	Description
System statuses		
Alive status	Boolean	True: Software is alive. False: Software doesn’t communicate. *Note : the use of the watchdog is recommended instead of this variable in order to check if the software is alive.*
Camera connection Status	Boolean	True: Connected False: Not connected
PLC connection status	Boolean	True: PLC connected False: PLC not connected
Insertion status	Boolean	True: Camera not inserted False: Camera inserted
Retraction status	Boolean	True: Camera not retracted False: Camera retracted
Actuator status	Boolean	True: Actuator OK False: Actuator failure
Air circuit status	Boolean	True: Compressed air OK False: Compressed air inlet failure
Water circuit status	Boolean	True: Water OK False: Water inlet failure
Temperature status	Boolean	True: Camera not overheating False: Camera overheating
WatchDog	Double	0 to 59 cyclical, this value increments every second. It is used to detect whether the software is alive or not.
Area measurement data		
Max	Double	Maximum temperature in the area (in Celsius degrees)
Min	Double	Minimum temperature in the area (in Celsius degrees)
Mean	Double	Mean temperature in the area (in Celsius degrees)
Alarm	Boolean	True: Alarm triggered False: Alarm not triggered
Profile *Available for line areas only*	BSTR (sequence of characters)	The temperature on each point on the line, each separated by the character ‘;’.
ProfileSize *Available for line areas only*	Double	The number of temperature points along the line.
FlameFront *Available for line areas only*	Double	The position of the flame front between 0 and 1.

The refreshing frequency is equals to 1Hz.

Note: The type “double” referred above is identical to the R4 or R8 types on an OPC server.