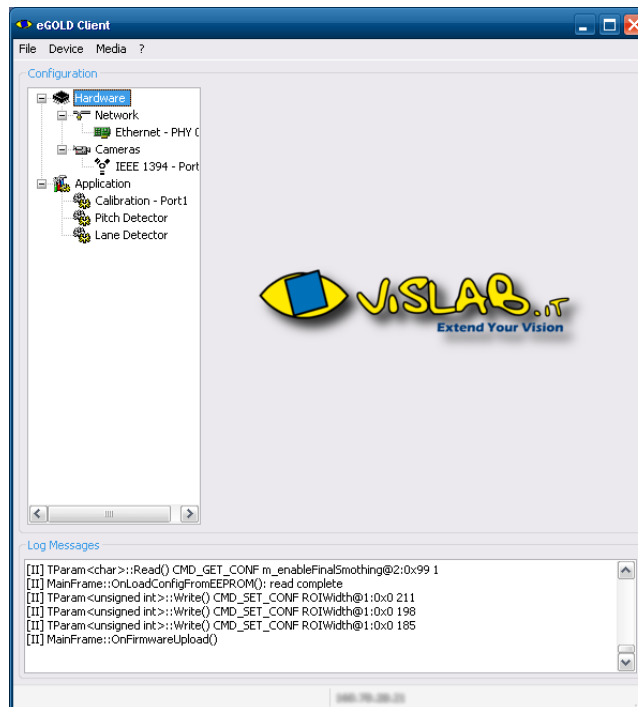


## eGOLD Client

### Technical Information

### Version 20090718



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## Revision history

<i>Date</i>	<i>Version</i>	<i>Description</i>
20 Sep 2008	1.0.0	Initial version
15 Jan 2009	1.1.0	Minor changes to section 3.2
15 Jul 2009	1.2.0	New client
20 Jul 2009	1.2.1	Partial upload and download, log and xml save
21 Oct 2010	1.2.2	Corrected typos and porting to OpenOffice

# 1. Getting Started

This is a manual to ease the usage of the eGOLD client software. This tool connects to our products in order to modify the algorithm parameters, the hardware settings, and the calibration parameters.

## 1.1. Software installation

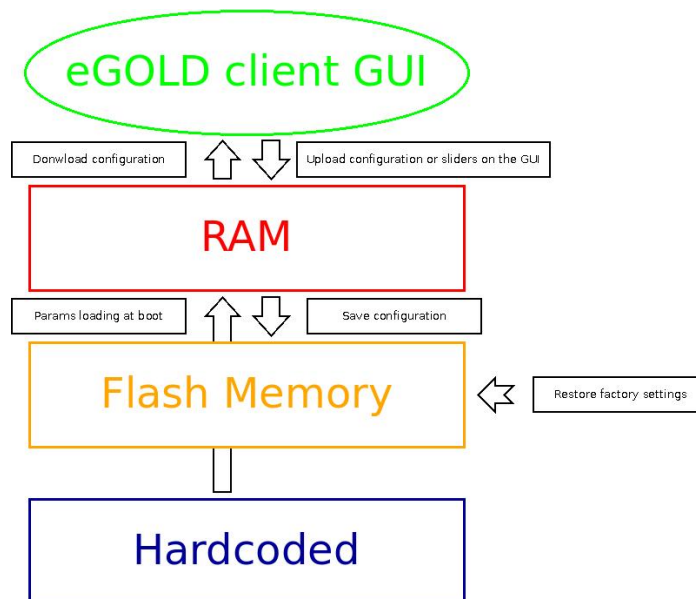
The software is designed to run on the Windows XP or Vista operating systems. If your Windows version has not the **Microsoft Visual C++ 2008 Redistributable Package (x86)** installed, please install it. It is available from the Microsoft web site.

To install the tool just copy the EXE file on your PC. Then copy the XML folder present on the CD in the same folder of the executable.

## 1.2. Memory management

The device has different levels of parameters storage:

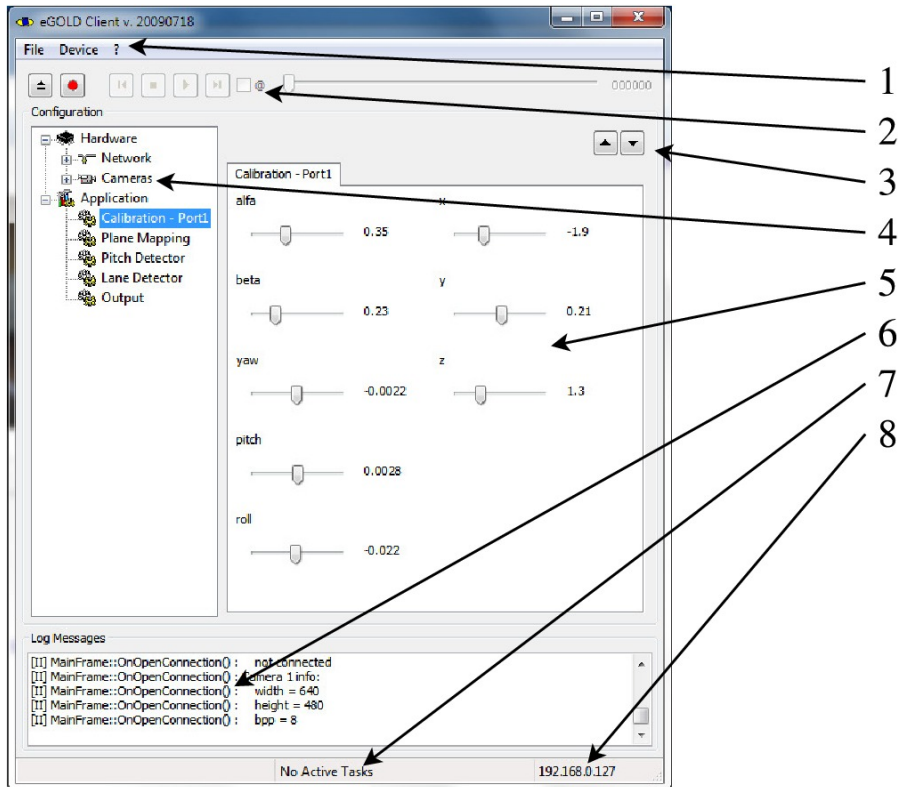
1. Hardcoded
2. Flash memory
3. RAM



At the boot the hardcoded parameters are loaded on the RAM, then the params on the flash memory overwrite the hardcoded ones. Through the use of the sliders described in section 2, is it possible to modify runtime the params and then save the whole or partial RAM configuration on the flash memory (as described in section 3.3).

The factory setting restore function erases all the data from the flash so that the parameters loaded at the boot are the hardcoded ones.

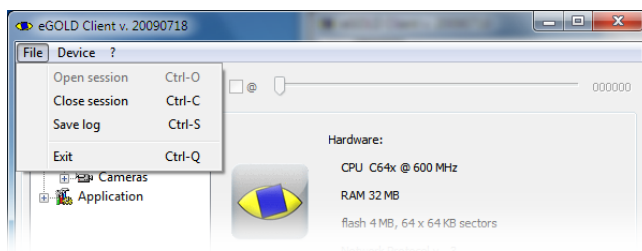
## 2. GUI description



1. Menu bar
2. Control bar
3. Buttons for selective parameters upload/download
4. Configuration menu
5. Configuration panel
6. Log window
7. Current task
8. Device address (once connected)

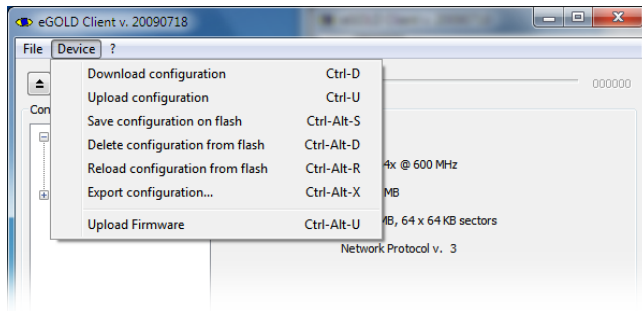
### 2.1. Menu bar

- **File**



- *Open session*
- *Close session*
- *Save log* – Export the log in a txt file
- *Exit*

- **Device**



- *Download configuration* – Download the parameters configuration present on the device RAM
- *Upload configuration* – Upload the client parameters configuration on the device RAM
- *Save configuration on flash* – Save the current device parameters configuration on the Flash memory
- *Delete configuration from flash* – see section 3.5
- *Reload configuration from flash* – Load the the parameters configuration from the device Flash memory on the RAM and send it to the client
- *Export configuration...* – Generate an XML file from the present client configuration.  
**Note:** If you want to save the configuration present on the device you have to *Download configuration* before *Export configuration...*
- *Upload Firmware* – see section 3.4

## 2.2. Configuration menu

The menu on the left side of the GUI is organized as follows. The **Hardware** section includes the settings related to the Ethernet parameters and the camera(s) settings, while the **Application** section includes the settings for the camera calibration and the algorithm parameters.

Through the sliders it is possible to modify the values of each variable in real time. If you want to save your configuration on the device flash memory from the Menu bar select: *Device* → *Save configuration on flash*.

## 3. How to...

### 3.1. ...connect the client

1. Run the EXE file **eGOLD-Client.exe**
2. Browse to select the XML configuration file provided together with the product, then click OK
3. From the menu bar: *File* → *Open session*
4. Enter the device address and click OK
5. Once connected you can synchronize the client with the configuration present on the device.  
From the Menu bar: *Device* → *Download configuration*

**Note:** Step 5 is necessary if you are planning to change the configuration through the sliders on the Configuration panel. Through the use of the button for selective parameters download shown in section 2 you can also selectively download only a subset of parameters from the device to the client.

### 3.2. ...record and play image sequences








First connect the client (section 3.1).

Each action performed on an image sequence (play, recording, stop, still advance, ecc) is done through the Control bar.



Each image sequence is described by an XML file saved together with the images.

The available actions are:

1.  Open an existing sequence for playback. After pressing this button a dialog will ask the location of the sequence XML file descriptor
2.  Start recording a sequence. After pressing this button a dialog will ask where to save the sequence. The images will be saved in blocks of 32 MB
3.  Play the loaded sequence
4.  Pause the playing sequence
5.  Stop the playing sequence
6.  Go back or forth of one frame
7.  If enabled, in playback mode loops on a frame

Through the slider on the right side of the Control bar, is possible to jump to a specific position in the image sequence.

While recording the VELD graphic interface shows a progress bar indicating whether the device is *Recording images* or *Sending images*. Once the recording is stopped the GUI returns to the standard state.

### 3.3. ...update the configuration with a new XML file

#### 3.3.1. upload the whole configuration

This procedure will upload the **whole configuration** present in an XML file to the Flash memory in order to be automatically reloaded after the first system reboot.

1. Connect the client, section 3.1, follow the steps from 1 to 4, on step 2 choose the new XML configuration file. **Attention:** Do NOT synchronize the client with the configuration present on the device
2. From the menu bar: *Device* → *Upload configuration*
3. From the menu bar: *Device* → *Save configuration on flash*
4. Press OK

#### 3.3.2. selective upload

To upload selectively **only a parameters subset** follow these steps.

1. Connect the client, section 3.1, follow the steps from 1 to 4, on step 2 choose the new XML configuration file. Attention: Do NOT synchronize the client with the configuration present on the device
2. Now press the button for selective parameters upload shown in section 2 for each subset you want to upload
3. From the menu bar: *Device* → *Save configuration on flash*
4. Press OK



**ATTENTION:** Be sure to keep all the systems powered (both the device and the PC) and the Ethernet connection working during the whole process. A black-out or a disconnection can render the system permanently unusable.

#### 3.3.3. calibration parameters upload

These are the instruction to upload the calibration parameters obtained through the Online Calibration Tool.

1. Edit your XML file and replace the calibration parameters with the new ones, as described in your system manual
2. Save the XML file as a new one
3. Now follow the steps of section 3.3.2, uploading only the calibration subset

### 3.4. ...update the firmware

1. Disconnect the camera(s) from the device
2. Connect the client (section 3.1, steps 1 to 4)
3. From the menu bar: *Device* → *Upload Firmware*
4. Select the firmware image (.bin file)
5. Press OK
6. While flashing the firmware the device monitor displays the operation; wait for a completion message on the log window
7. Connect the camera(s) from the device
8. Reboot your system



**ATTENTION:** Be sure to keep all the systems powered (both the device and the PC) and the Ethernet connection working during the whole process. A black-out or a disconnection can render the system permanently unusable.

### 3.5. ...restore factory settings

This procedure will erase the flash memory forcing the system to load the hardcoded parameters.

1. Connect the client (section 3.1, steps 1 to 4)
2. From the menu bar: *Device* → *Delete configuration from flash*
3. Press OK
4. Reboot your system



**ATTENTION:** Be sure to keep all the systems powered (both the device and the PC) and the Ethernet connection working during the whole process. A black-out or a disconnection can render the system permanently unusable.

## 4. Contacts

For any question or other information do not hesitate to contact us at

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