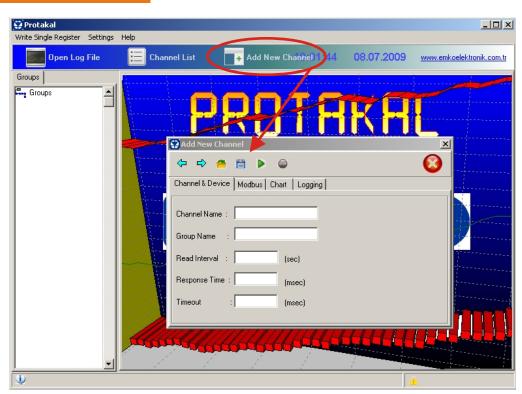
# PROTAKAL

- Suitable for data logging from all types of devices which uses MODBUS RTU/ASCII protocols.
- Channels can be defined from Unlimited Serial ports
- Software starts automatically after Computer turns on. Only one time configuration.
- Enables graphic visualisation for very fast processes.
  - Possible to log data for every 50ms.
- Every channel has its own graphical screen.
- Channels can be displayed in the same graphical screen when necessary.
- Channels are grouped in the main screen according to their group names.
- Data logging in Excel, XML, HTML and unlimited ASCII formats
- Creates files in configurable time intervals during data logging.
- Graphics saved in JPEG, PNG, GIF, PCX, VML, PostScript and PDF formats.
- Enables graphic visualisation in a ms resolution,
- 2-Dimension or 3-Dimension, colourful or black-white.
- Channel configurations are all independent.
- Channel configurations can be stored in a file and can be read.
- Supports "Write Single Register" Modbus command. User may change device control parameters with this feature.
- Supported value types: Signed Integer, Unsigned Register, Signed Long, Unsigned Long and Float (IEEE 754).

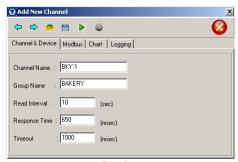




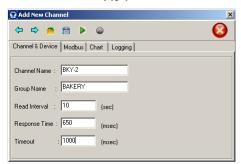
User can add new device by Add New Channel button



## **Channel & Device Settings**



Pic-1



Pic-2

Channel Name: User should enter a name for a new additional device

Group Name : User should enter a name for a new group. If user would like to add

a new device into the the Same Group, user should use same Group Name.

( Please look at the following picture / Pic-2 )

Read Interval : User can determine logging intervals (1 to 999999 second)

Response Time: Commnunication devices have got different response times.

User could find this information from the device producer. If user doesn't

know the Response Time, at least 999 msec should be entered

EMKO devices' Response time is 650msec

**Timeout**: If devices can not communicate during this time, software will indicate timeout error. Advice timeout value is 1000msec

## **Modbus Settings**



Pic-3

**COM Port**: After power up, if it is the first time to run the program PC comport setting need to be made.

Slave ID : User should enter device ID into this part .

(247 devices can be added by this button)

Function: User should choose required Registers type

Read Holding Registers (4XXXX) is for parameter values

Read Input Register (3XXXX) is for process values

**Offset**: This offset value is extension part for registers code. User should enter required value into the this part for logging to process value, set value, alarm Value

#### For ESM-XX50 series

Process Value : 0 "Register Function should be selected Read Input Register (3XXXX)"

Process Set Value : 0 "Register Function should be selected Read Holding Registers (4XXXX)"

Alarm-1 Value : 1 "Register Function should be selected Read Holding Registers (4XXXX)"

Alarm-2 Value : 2 "Register Function should be selected Read Holding Registers (4XXXX)"

: 3 "Register Function should be selected Read Holding Registers (4XXXX)"

#### For ESM-XX00 series

Alarm-3 Vallue

Process Value : 0 "Register Function should be selected Read Input Register (3XXXX)"

Alarm-1 Value : 1 "Register Function should be selected Read Holding Registers (4XXXX)"

Alarm-2 Value : 2 "Register Function should be selected Read Holding Registers (4XXXX)"

Alarm-3 Vallue : 3 "Register Function should be selected Read Holding Registers (4XXXX)"

#### For EZM-XX00 series

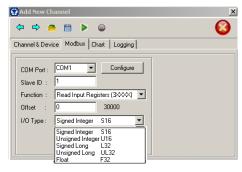
Process Value : 2 "Register Function should be selected Read Input Register (3XXXX)"

Output-1 Action : 13 "Register Function should be selected Read Holding Registers (4XXXX)"

Output-2 Action : 14 "Register Function should be selected Read Holding Registers (4XXXX)"

**I/O Type**: Every data type which takes place in the devices is different.

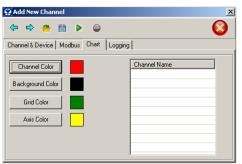
So user should be selected correct data type from I/O type



Pic-4

#### **PROTAKAL**

## **Channel Color Settings**



Pic-5

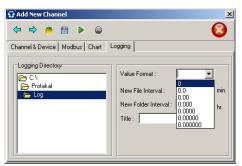
Channel Color : User may change the Channel Graphics Color by this button

Background Color: User may change the Graphics Background Color by this button

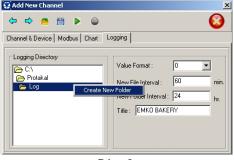
Grid Color : User may change the Grid Color by this button

Axis Color : User may change the Axis Color by this button

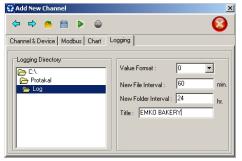
### **Logging Settings**



Pic-6



Pic-8



Pic-7



Pic-9

**Value Format**: User can select decimal point position of value by this button.

This point position should be as same as device point position.

New File Interval : User can determine how often a new file will be created

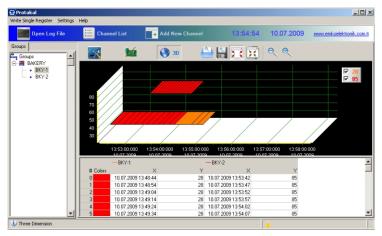
New Folder Interval: User can determine how often a new folder will be created

**Title**: User can enter a graphics name.

#### For Creating New Folder;

Please click to right button of the mouse in the Logging Directory window and push to **Create New Folder** by left button of the Mouse. ( Please look at the following picture / **Pic-8** )

### **Graphics Tools**



Pic-10



**Channel Settings** 



Write Single Register



**Three Dimension** 



**Load Zoom** 



Save Zoom

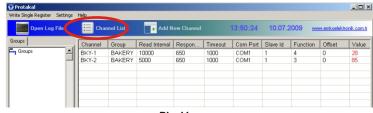


**Zoom Fit Best** 



**Zoom Last Value** 

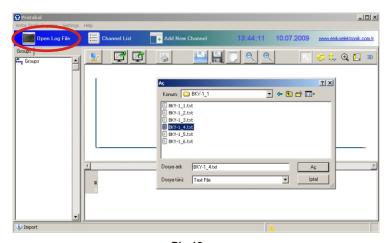
## **Channel List**



Pic-11

Channel List: User can see all of the Channel detail

## Open Log File



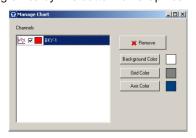
Pic-12

**Open Log File :** User may open a file which includes past log file



**Manage Chart** 

User can change to background Color, Grid Color, Axis Color of grahics by this button for Graphics view





Pic-13 Pic-14



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Import File



**Export File** 

(Please look at the Pic-13/ Pic-14 for export data type )