

PC Software for IntelliLite Controllers

# *LiteEdit 2.0*

## *Configuration and Monitoring Tool*

SW version 2.0, August 2004



## User guide

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# General guidelines

## What describes this manual?

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This manual describes PC software LiteEdit – a configuration and monitoring tool for IntelliLite controllers.

## What is LiteEdit?

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LiteEdit is Windows 95/98/NT/2000 based software.

LiteEdit provides following functions:

- Direct, off-line or modem communication
- Controller configuration
- Software download
- Read / write / adjust all setpoints
- Read all quantities
- Export/Import data

### Hint:

LiteEdit supports IntelliLite controllers only.

## How to install LiteEdit ?

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Insert a CD.

Start Setup.exe file.

When installation is completed, a new folder “LiteEdit” is created.

## LiteEdit directories

Default directory is: C:\...Program Files \ ComAp \ LiteEdit \

Directory			File	
LiteEdit		<i>Executable and aux. files</i>	LiteEdit.exe IntelliDDE.exe	
	App	<i>Firmware</i>	*.mhx	
		Curves	<i>Curve files</i>	*.crv
		Dict	<i>Dictionaries</i>	*.trn
	Archives		<i>User archives</i>	*.ail
		Default	<i>Default archives</i>	*.ail
	Database	<i>Configuration files for peripheries/ECU interface</i>	Modules.xml *.esl, *.esf	

Application directory contains separate mhx files for all IntelliLite applications.

## PC Hardware requirements

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LiteEdit is based on Windows 95/98/NT/2000 or higher platform. Use PC suitable for this platform. No other special requirements are necessary.

LiteEdit requires 10 Mbyte of hard disc free space.

Standard modem without special requirements can be used.

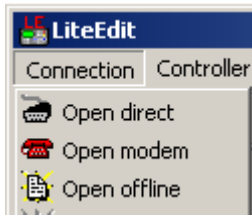
## How to check *LiteEdit* version?

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Use *Help – About* to display current *LiteEdit* version window.  
See an example:



# Open and close the communication



There is only one common Archive directory for all all archives. It is possible to open connection to one controller only, because multiple applications are not supported by IntelliLite controllers.

## ***Open direct***

---

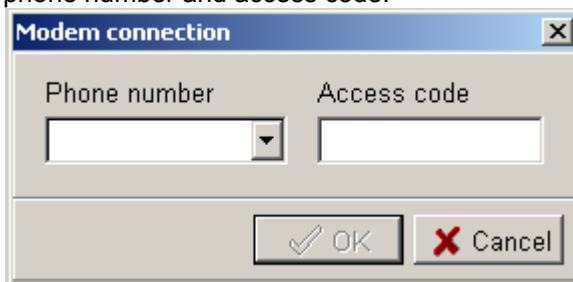
Connect RS232 cable between IntelliLite and PC.

Use *Connection | Open direct* to open the communication with the controller.

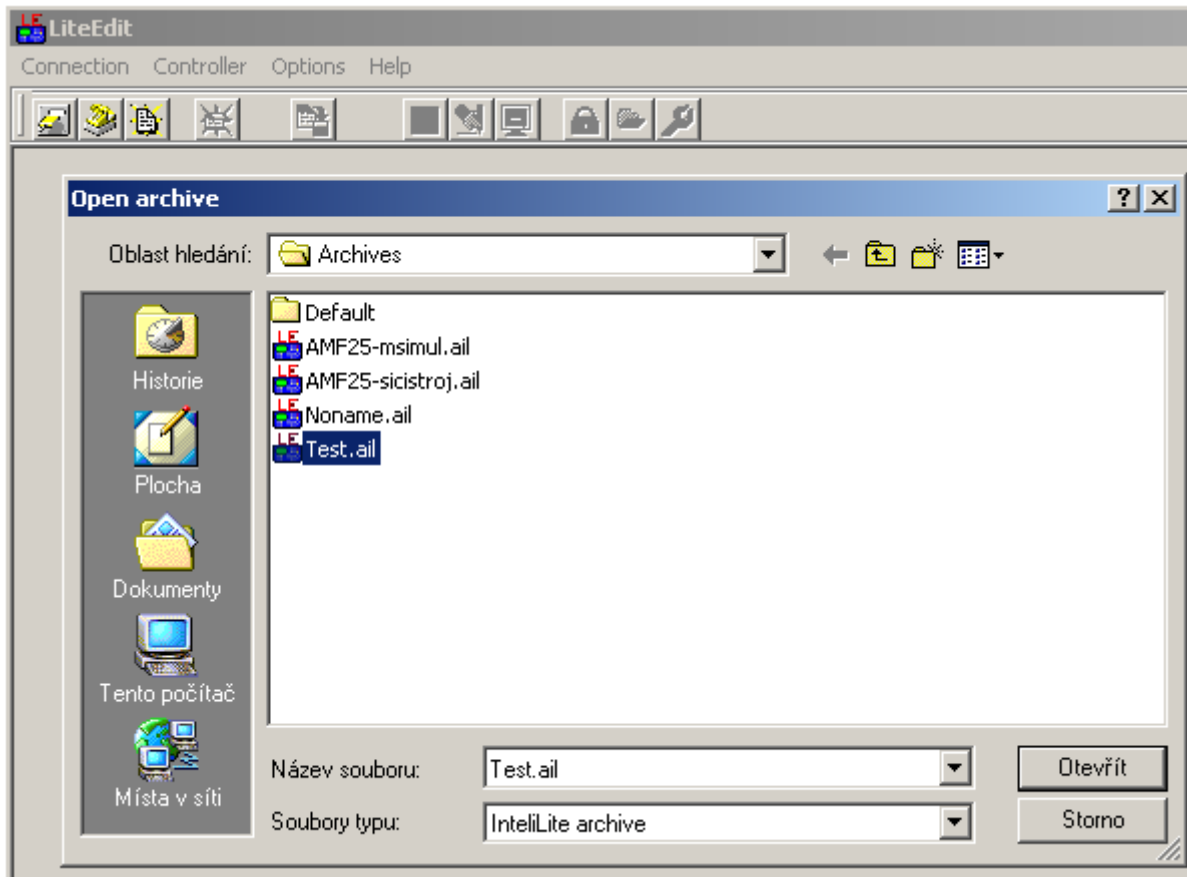
## ***Open modem***

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Use *Connection | Open modem* to open the modem communication with the controller.  
Set the phone number and access code.



## Open offline



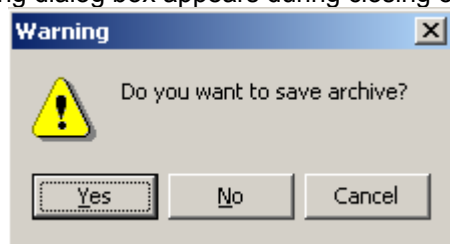
Select any archive from current or another directory.

## Close connection

Use *Connection | Close* to close the communication with the controller.

When connection is closed, you are prompted by a “Save project Data?” question. Answer yes, if you want to store all setpoints and configuration into an AIL archive file.

Following dialog box appears during closing of connection.



Archive file is saved under automatic name:

Name of the file is **Gen-set nameYYYYMMDDVV.AIL**.

Gen-set name...**Basic settings:Gen-set name**

YYYY...year

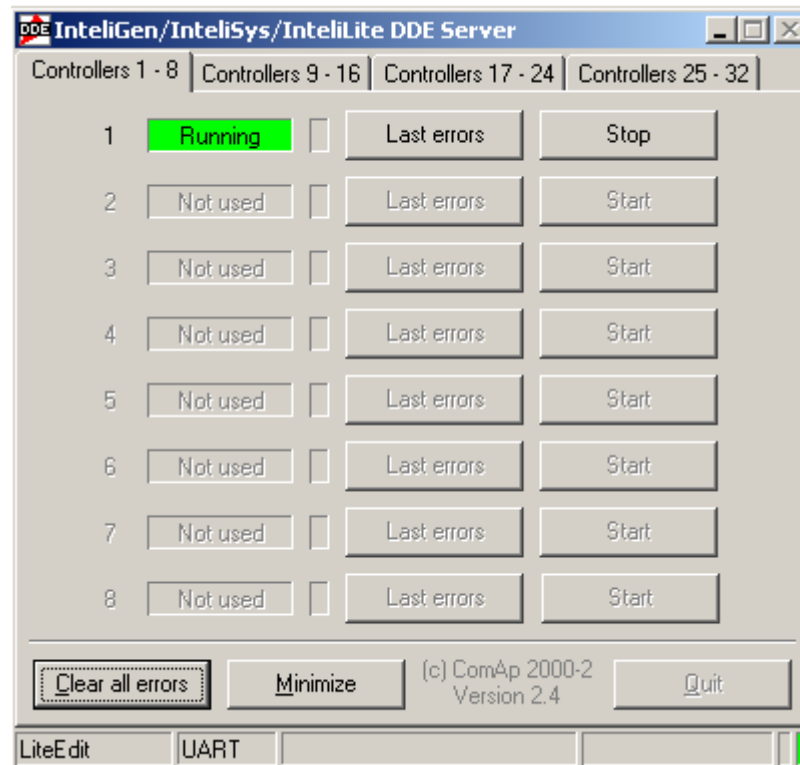
MM...month

DD...day

VV...ordinal number

SAVE AS command enables change the name of AIL file.

## DDE Server



DDE Server provides the communication interface between PC and Controller.  
Use ALT-TAB (or click on the Communication status), select “DDE Server” and see message box.

Click on “Last errors”... to see report of the last error message.  
Click on “Stop”... to pause the communication (not to close the connection).

DDE server must be running in direct or modem connection.

### LiteEdit status

Bottom line shows the following communication status:

#### Connection:

Type of connection (Direct / Off line / Modem)

#### InteliLite application:

MRS10, MRS11, MRS15, MRS16, AMF20, AMF25, ....

#### DDE Server Status

Status of the DDE Server (Running / Preparing / Error). Double click or use *Connection | Information* to get the detailed communication status.

### DDE server messages

#### Window with a message: “Can’t open COM”

The selected COM port is occupied by other program or is not installed. Check if there is other program using the COM port running or select different COM port.

## Red bottom LiteEdit line with a message “Error”

Use ALT-TAB, select DDE Server and have a look at the status. If selected controller channel is red with message “Error”, check if the Controller is switched on, or cable properly connected between COM port and Controller. Click on “Last errors” button to see more information:

### Possible DDE server error messages

#### Timeout (continuous)

Connected IL controller does not answer to DDE server request. Probable reasons:

- IL controller is not connected
- Wrong communication cable
- IL controller failure
- Wrong PC COM port adjusting
- Wrong **Basic settings**: RS232 mode setpoint (Standard, Modbus)
- Damaged IG RS232 port – check PC–IL ground connection.

#### Timeout (sometimes)

Occasional timeouts can be caused by your operating system. It is recommended to use Windows NT instead of Windows 9x for industrial purposes.

#### TAPI: requested modem (#) not found

Modem is not configured in Windows or it has not required parameters.

#### TAPI: unavailable modem

Communication port is engaged by other communication device.

#### TAPI: Line unexpectedly closed

Modem is configured in Windows, but it is not connected or it is failed.

#### TAPI: Can't create connection

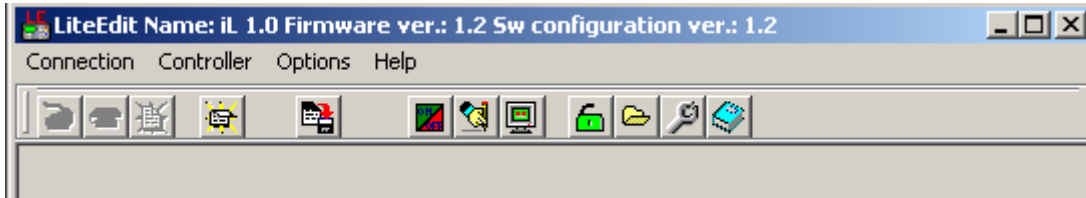
It is not possible to open connection. Probable reasons:

- When ringing is audible during start of the connection
  - On the selected phone number is incompatible type of modem.
- When busy tone is audible during start of connection
  - Selected phone number is busy.
  - DDE server is connecting to itself (wrong phone number entered)
- When no tone is audible
  - Phone line is not connected to the Modem















# LiteEdit functions

There are several functions available from LiteEdit. It is possible to open Control window, Setpoints window and Values window after connection is opened. It is possible to change or modify controller configuration.



## List of available items

- |   |  |
|---|--|
|    | Open direct connection                     |
|    | Open modem connection                      |
|    | Open off-line connection                   |
|    | Close connection                           |
|    | Save ail archive                           |
|   | Control window                             |
|  | Setpoints adjustments                      |
|  | Values window                              |
|  | Password: closed , opened. One level only. |
|  | Select configuration.                      |
|  | Modify configuration.                      |
|  | Text translator.                           |

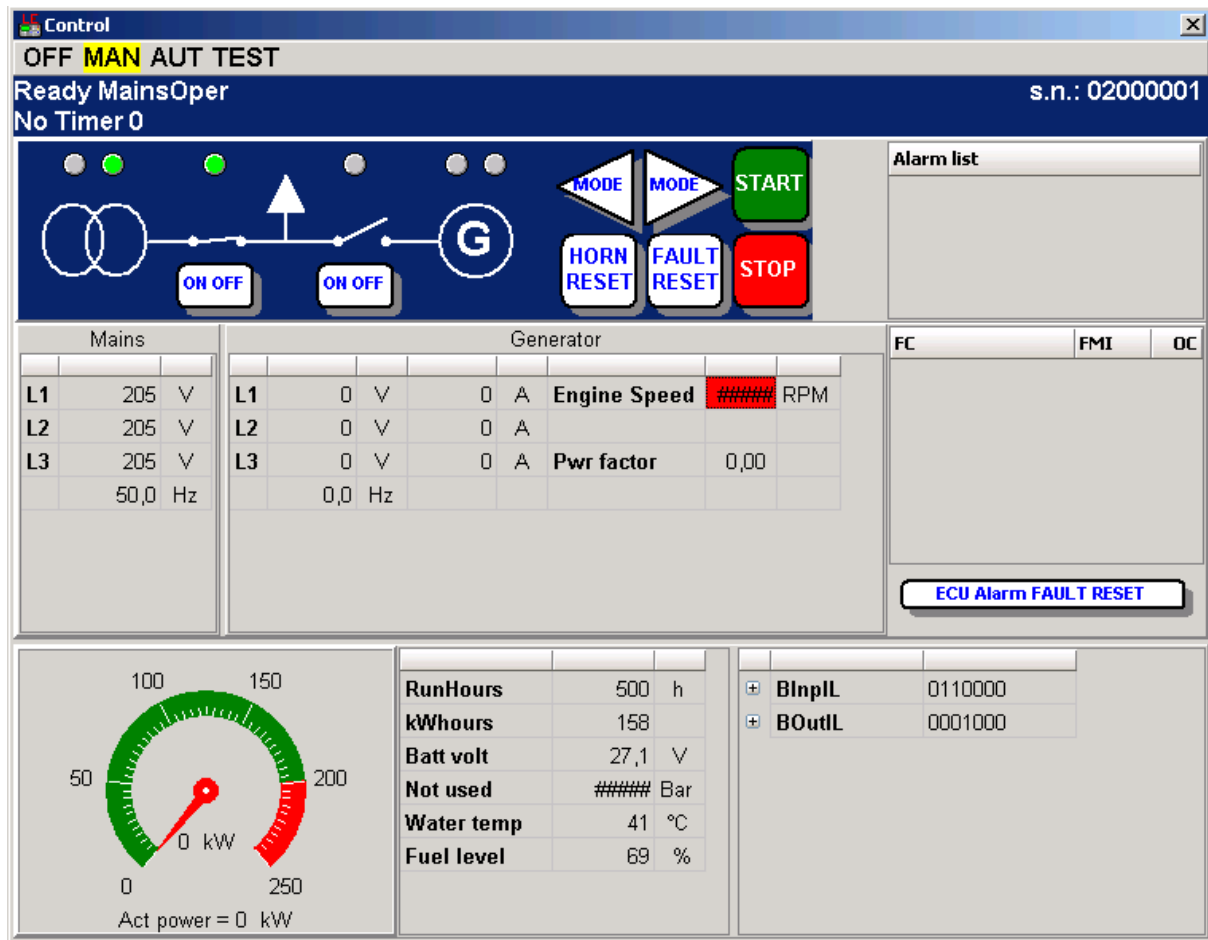
## ***Control window***

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Control window has two basic functions

- |   |  |
|---|--|
| Remote genset control                       | Controller mode change<br>Manual genset control via buttons like from controller front panel.  |
| Genset states indication and values reading | State machine indication.<br>Mains, genset and breaker states LED indication.<br>Alarm list, ECU Alarm list.<br>Reading of actual values measured from genset. |

Control window is active for both Direct and Modem connection.



**Control**  
 OFF **MAN** AUT TEST  
 Ready MainsOper s.n.: 02000001  
 No Timer 0

Alarm list

MODE MODE START  
 HORN RESET FAULT RESET STOP

Mains		Generator				FC	FMI	OC
L1	205 V	L1	0 V	0 A	Engine Speed	#####		
L2	205 V	L2	0 V	0 A				
L3	205 V	L3	0 V	0 A	Pwr factor	0,00		
	50,0 Hz		0,0 Hz					

ECU Alarm FAULT RESET

100 150  
 50 200  
 0 250  
 Act power = 0 kW

RunHours	500	h
kWhours	158	
Batt volt	27,1	V
Not used	#####	Bar
Water temp	41	°C
Fuel level	69	%

⊕ BInpL	0110000
⊕ BOutL	0001000

## Setpoints window

It is possible to change setpoints values in Setpoints window.

Password protected setpoints have Gray background and can't be changed. Password has to be entered prior to change in direct connection.

It is possible to change any setpoint without password setting in Off line mode.

Setpoints limits and protection status is visible on mouse click on selected position in Off line mode.

Groups	Name	Actual value	Dimension
Basic settings	Gen-set name	InteliLite	
Engine params	Nomin power	200	kW
Engine protect	Nomin current	350	A
Gener protect	CT ratio	1 : 5000	Setpoint is protected by password.
AutoMains Fail	PT ratio	1,0	/1
Sensors spec	Vm PT ratio	1,0	/1
IOM/PTM module	Nomin voltage	231	V
	Nominal freq	50	Hz
	Gear teeth	120	
	Nominal RPM	1500	RPM
	FltResGoToMAN	DISABLED	
	DispBaklightTO	0	min
	ControllerMode	OFF	
	RS232 mode	STANDARD	
	NumberRings AA	3	

**Hint:**

Password entering in LiteEdit enables to access Setpoints from LiteEdit only, not from controller front panel and vice versa.

## Values window

It is possible to read all actual values from controller in values window. Values are separated into groups.

Groups	Name	Value	Dimension
Engine params	TimerText	MainsFlt	
Analog	TimerValue	0	s
Generator	SW version	2,0	
Mains	SW branch	1	
Binary I/O	Application	6	
Statistics	ControllerMode	0	
IL info	DiagData	0	
RA15 module	PasswordDecode	2481875985	
IOM/PTM module			
ECU			

## IL info window

TimerText and Value: displays active internal controller timer and its value.

SW version and SW branch: displays actual SW version, SW branch = 1 is standard

Application number: internal code of MRS10, 11, 15, 16, AMF20, 25

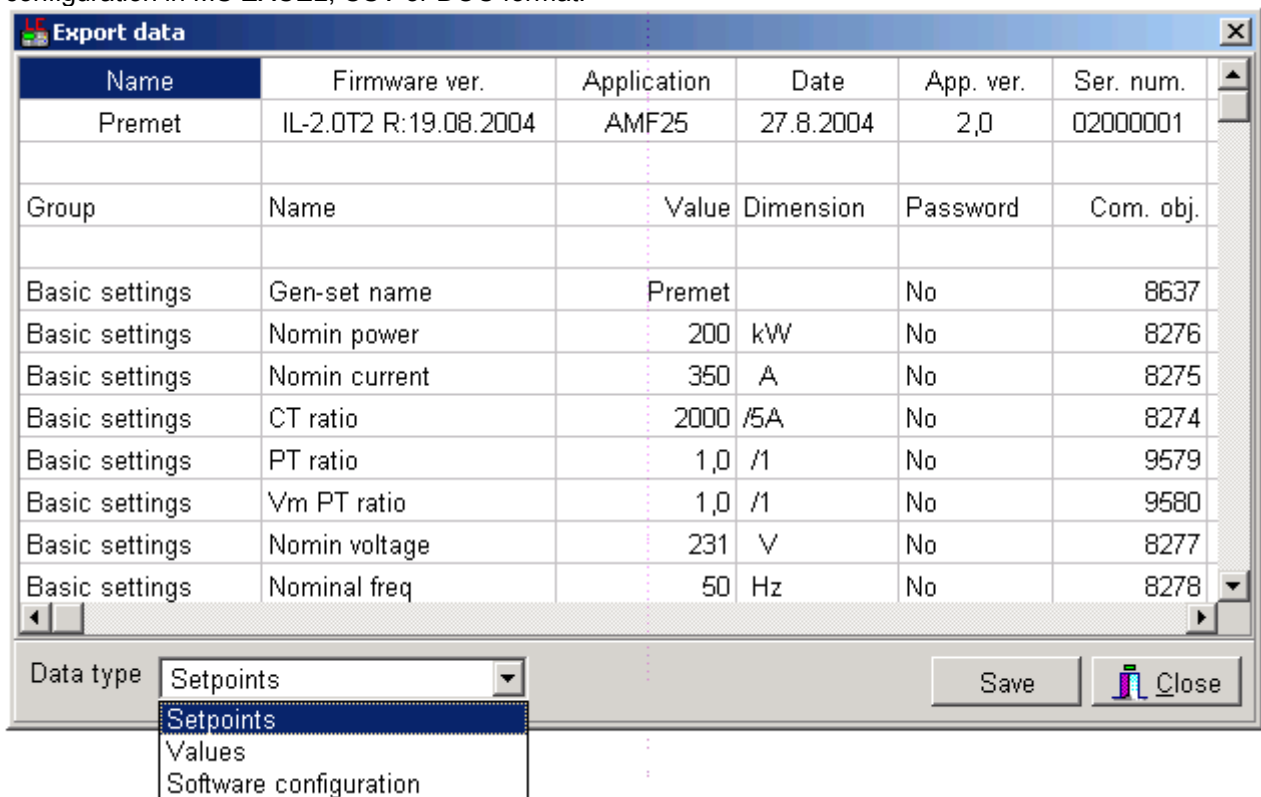
ControllerMode: 0=OFF, 1=MAN, 2=AUT, 3=TEST

DiagData: In case of software malfunction DiagData shows the value that enables to locate possible bug in software. Include this number when reporting a software problem.

## Export data

Use *Controller* | *Software configuration* | *Export data*.

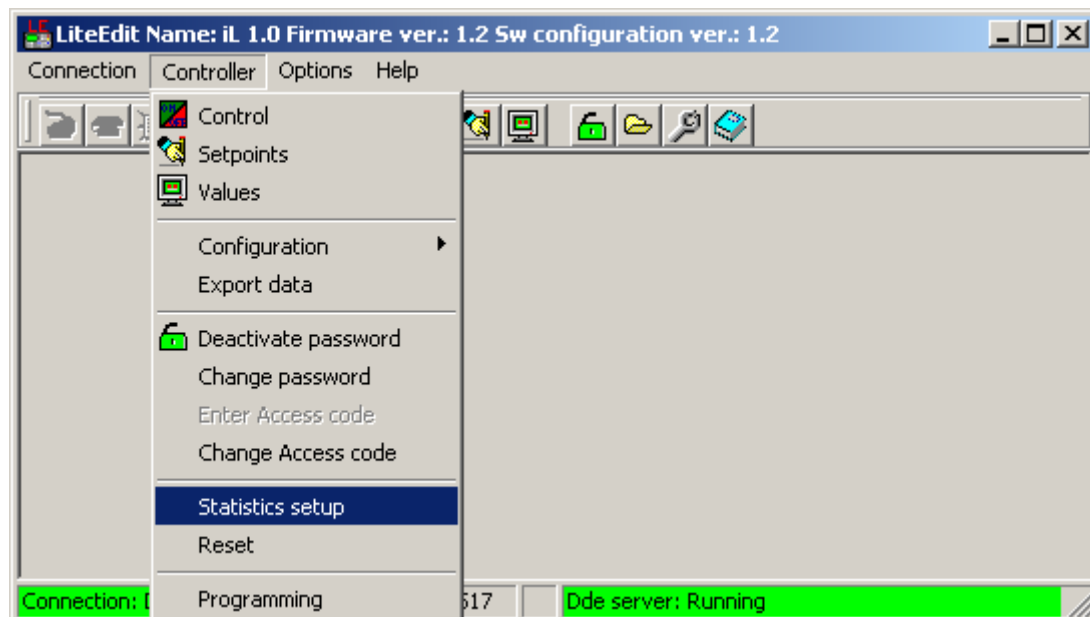
Dialog box *Export data* allow separately save to PC tables of Setpoints, Values or Software configuration in MS EXCEL, CSV or DOC format.



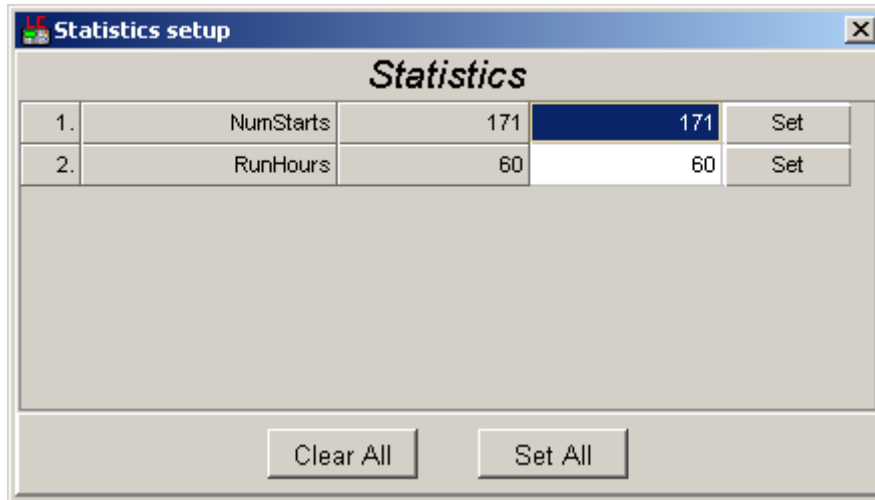
## Statistics setup

Select *Controller* – *Statistic setup*.

Password has to be entered before access to this function is enabled.



Set or clear selected values.



## Reset controller

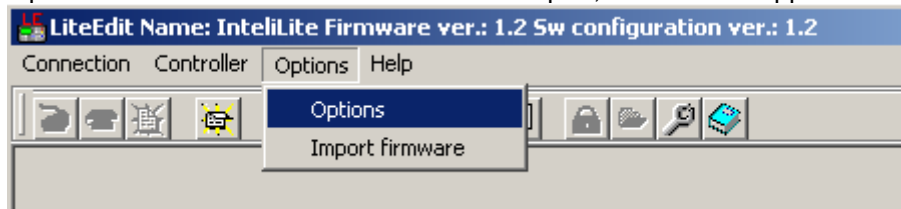
Use *Controller | Reset* to reset controller.

If setpoints error occurs after new application downloading, the controller stays in Init state (visible on iL screen). Check all values of setpoints (at least one setpoint must be written to recalculate the checksum) and then use Reset command to start the controller.

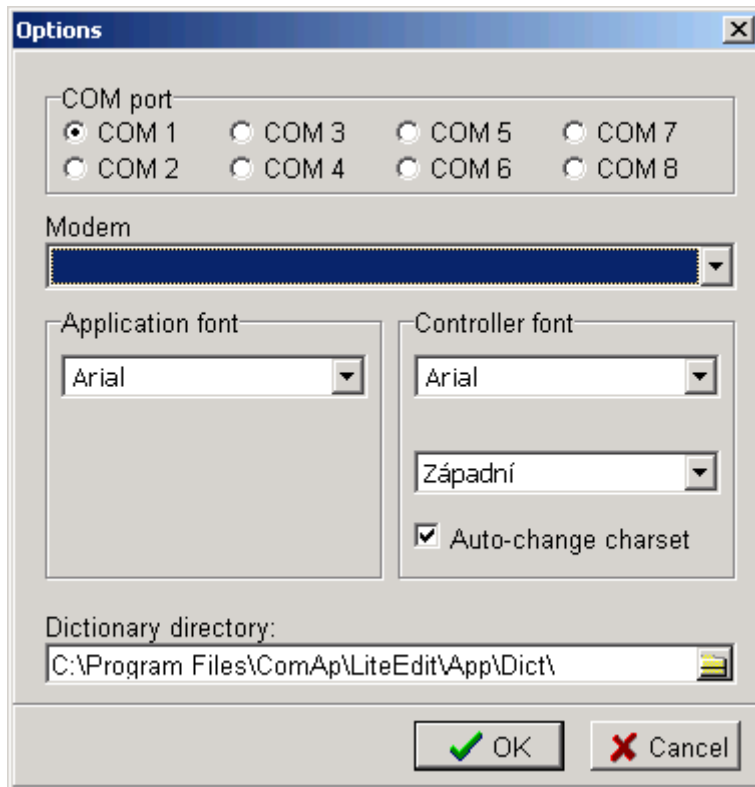
Password has to be entered before access to this function is enabled.

## Options

Option window enables selection of PC COM port, modem and Application and Controller fonts.

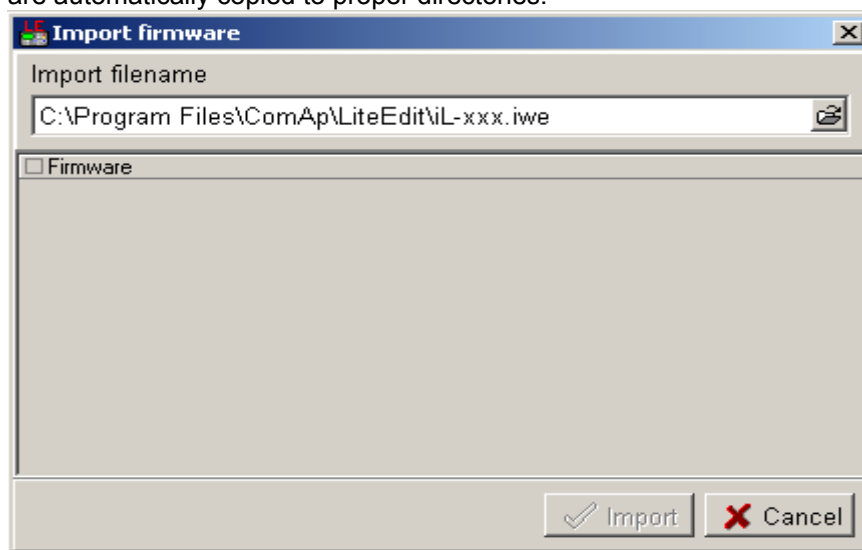


COM port	PC COM port for selection for Direct connection
Application font	Application font defines font and script used in WinEdit itself (windows, functions, buttons, dialog etc. texts) e.g. Basic, Configuration, Fonts, History, ... see picture bellow.
Controller font	Defines font for all texts, which are downloaded from controller, e.g. Setpoint and Values names. This selection is active only when Auto-change charset is not ticked.
Auto-change charset	Controller font is set according controller setting (is the same like in controller)
Dictionary directory	In this directory the dictionary TRN files are stored.



## Import firmware

Select required iwe pack and click import. Iwe pack contains new version of mxh and ail files, which are automatically copied to proper directories.

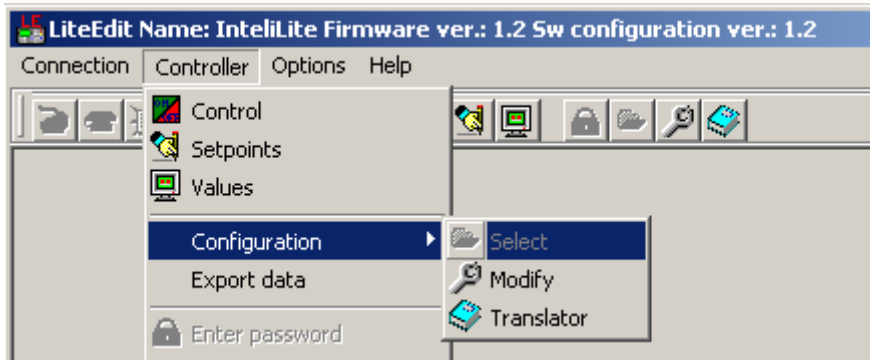


# InteliLite configuration

*Hint:*

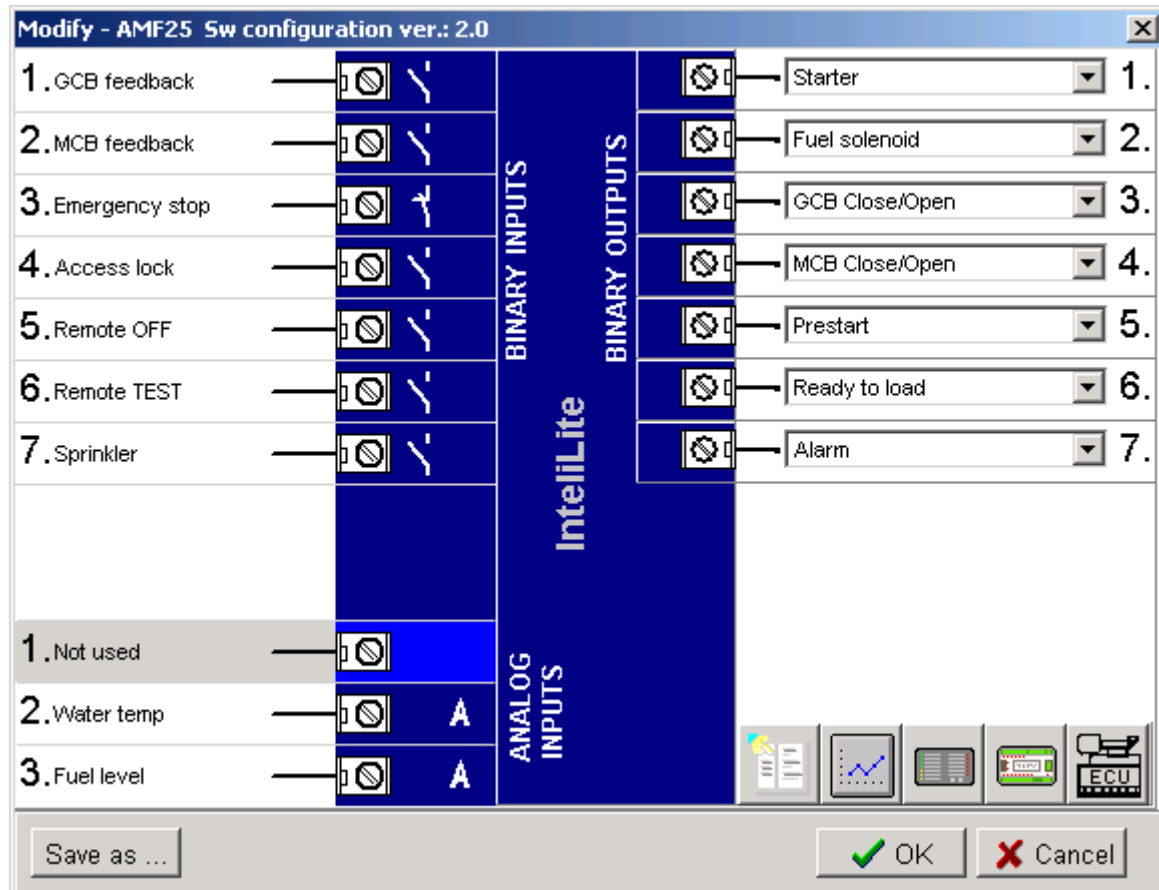
Only the same archive type, which corresponds to InteliLite hardware unit, can be downloaded.  
 E.g. AMF25 archive can be downloaded to iL-AMF25 controller only not to e.g. iL-AMF-20 or another.

Select Controller – Configuration – Select or Modify from LiteEdit tool bar.  
 Use Select to change all archive to different one. It is active in Direct connection only.  
 Use Modify for modification of current archive.



## Configuration modify

Modify window enables to modify configuration of Binary inputs, outputs and Analog inputs.  
 For modification click on selected item.



## Binary inputs configuration

*Hint:*

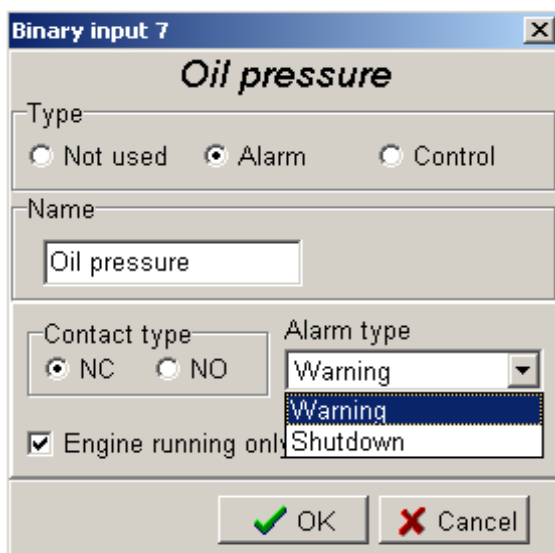
A binary input can be configured for control or alarm function (not for both together).



Binary inputs configuration

### Control

Select Type = Control  
Select control function from the list



Binary inputs configuration

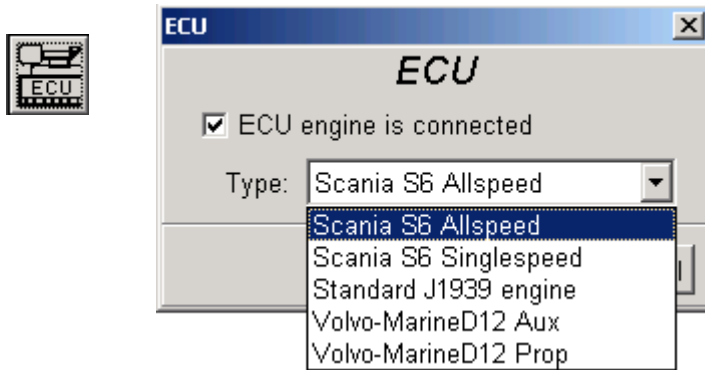
### Alarm

Select Type = Alarm  
Change Name of input (up to 14 characters)  
Select Contact type:  
Normally closed or Normally opened  
Select Alarm type  
Select Engine running only (when ticked) or All the time

## Analog inputs configuration

The Analog inputs values assignment is configurable. Analog values can be read from analog inputs or from ECU:





If an engine equipped with ECU is connected, select the appropriate database file:

- Standard J1939 engine
- Scania engine
- Cummins engine
- .....

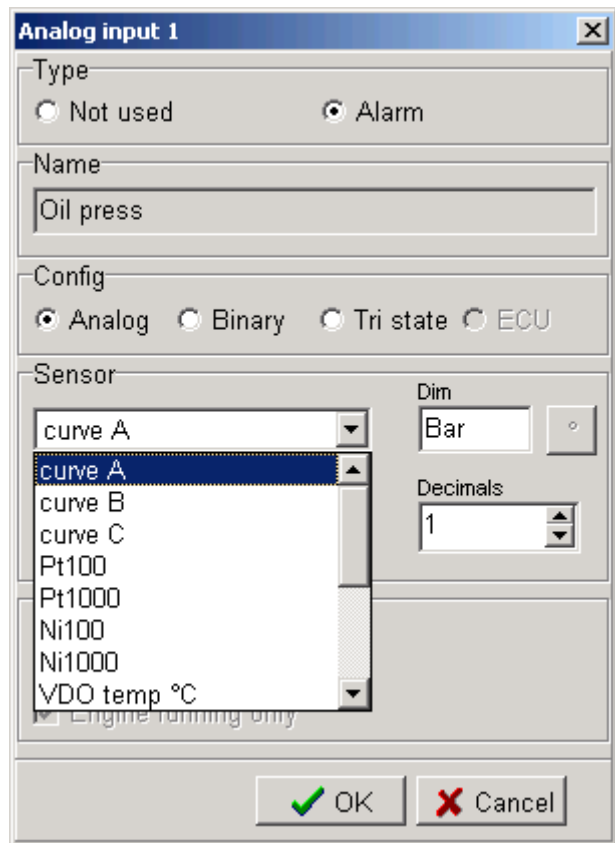
Values will be read from ECU and all analog inputs remain free configurable for other quantities.

**Configuration of analog inputs:**

If the ECU is not connected, the first analog input is fixed to *Oil pressure* measurement. Other inputs are configurable.

Default configuration remains:

- A11 - Oil press
- A12 - Water temp
- A13 - Fuel level




Analog input configuration when value is read from IL-CU terminals:

Alarm or Not used input

Name – up to 14 ASCII characters

Select Configuration

Select sensor characteristic from the list

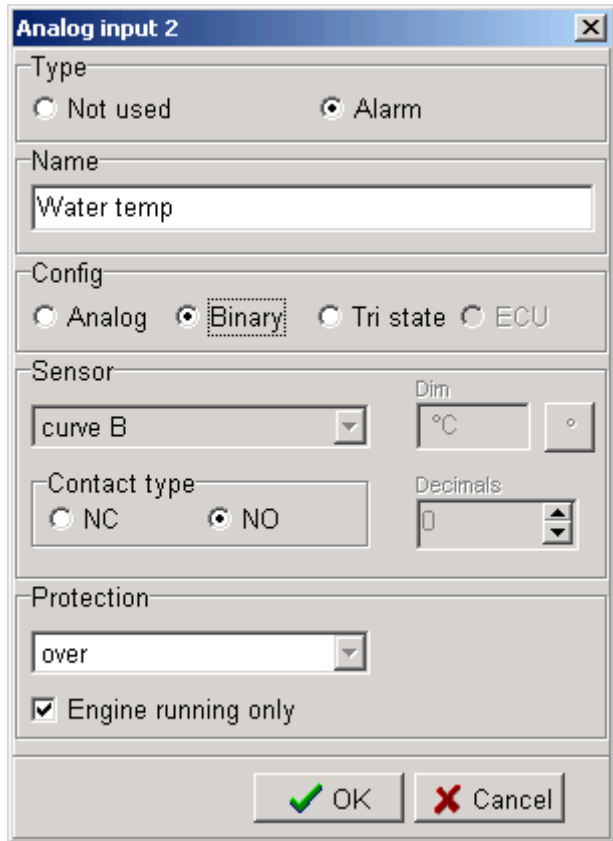
(curves A, B, C can be modified )

Change Dimension (up to three characters)

Set number of Decimal points for displayed value.

E.g. Value 100 is displayed like 10,0 when Decimals = 1.

Set Over, Over+FIs, Under or Under+FIs alarm activity (for fixed *Oil press* input only Under and Under+FIs)



IL-CU Analog input configuration for Binary or Tri state inputs.

Normally closed or Normally opened

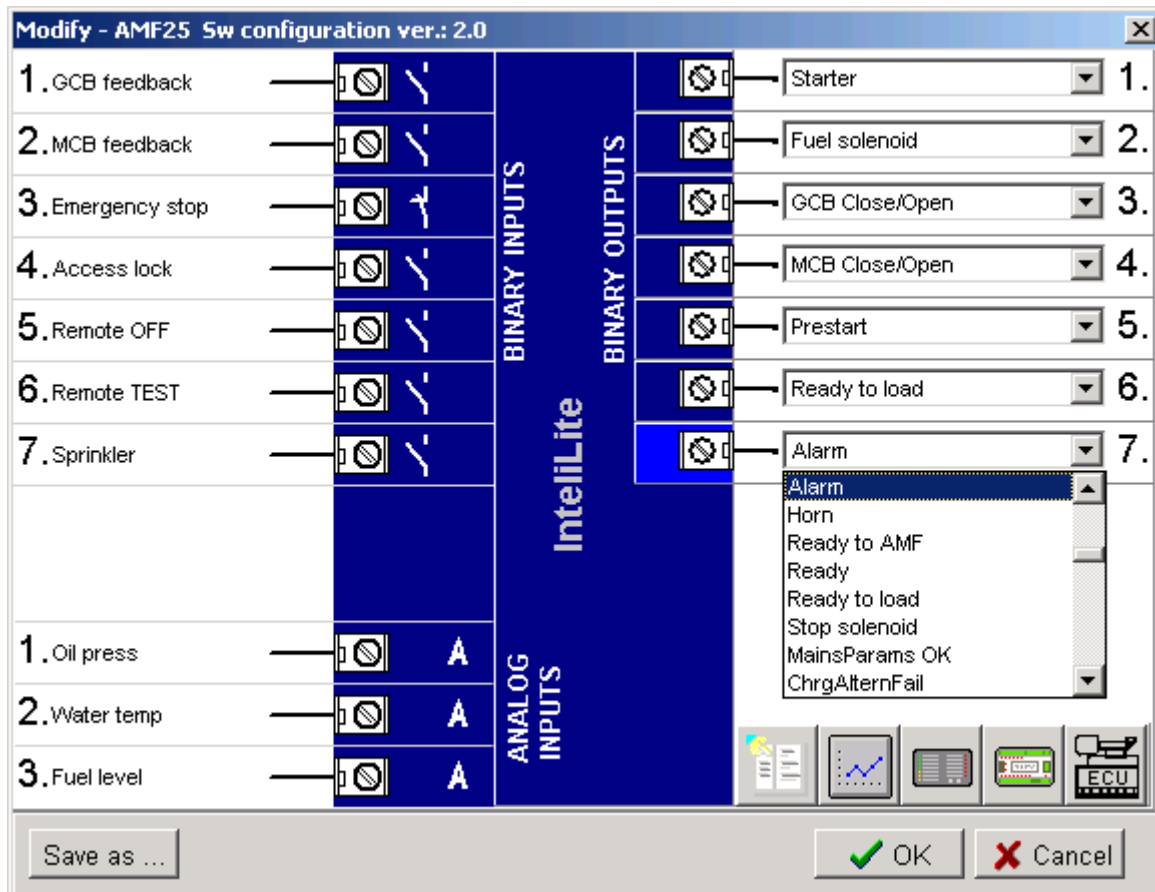
Analog input configuration	
Analog	analog measuring is based on selected Sensor characteristic
Binary	detects open/close contact - threshold level is 750 $\Omega$ .
Tri-state	Detects open/close contact (threshold 750 $\Omega$ ) and sensor fail for input resistance <10 $\Omega$ or > 2400 $\Omega$

*Hint:*

For more details see IntelliLite user guide.

### Binary outputs configuration

Select required function from the binary outputs list.



## Miscellaneous functions



*Setpoints password protection*

User sensor curves A, B, C modification

Remote annunciator RA15 enable/disable and configuration

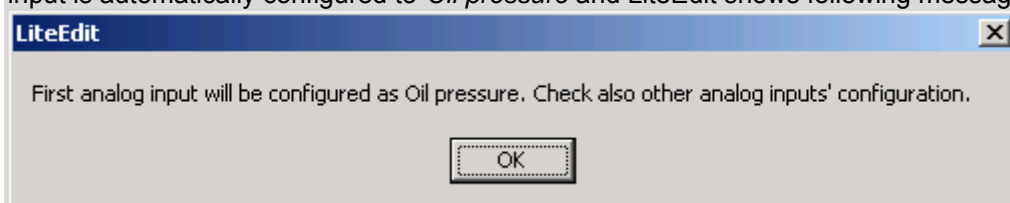
IOM/PTM module enable/disable and configuration

*Selection of engine/ECU type connected*

Necessary condition to receive RPM and Oil press, Water temp or Fuel level values from Engine Control Unit is active and connected CAN bus interface.

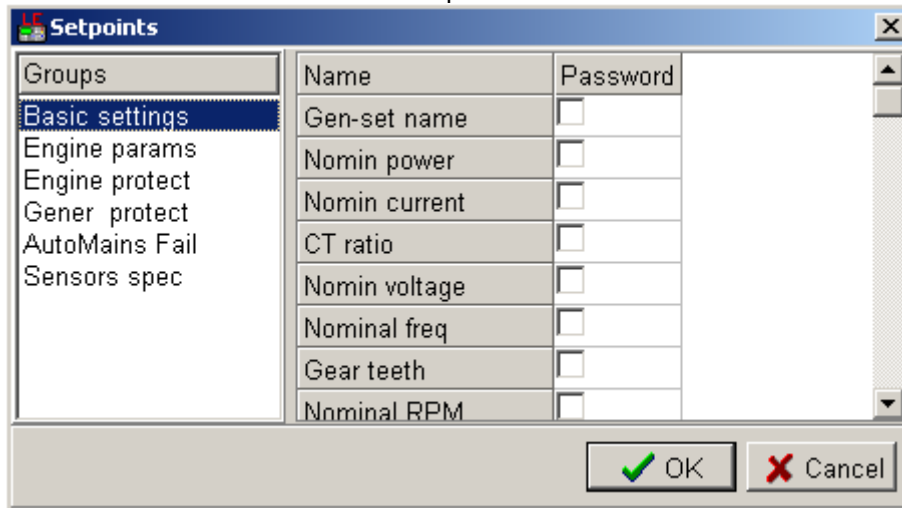
No RPM pickup and Oil, Water and Fuel analog sensors are needed for IL-CU when CAN bus interface to ECU is active and connected.

If the ECU is removed from configuration, it is necessary to check analog inputs configuration. First input is automatically configured to *Oil pressure* and LiteEdit shows following message:

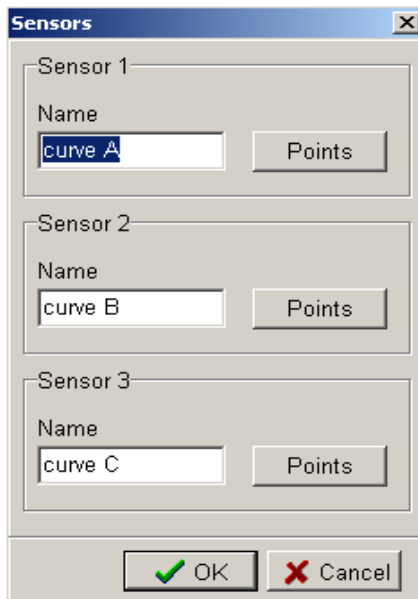


## Setpoints password protection

Tick items which are to be Password protected.



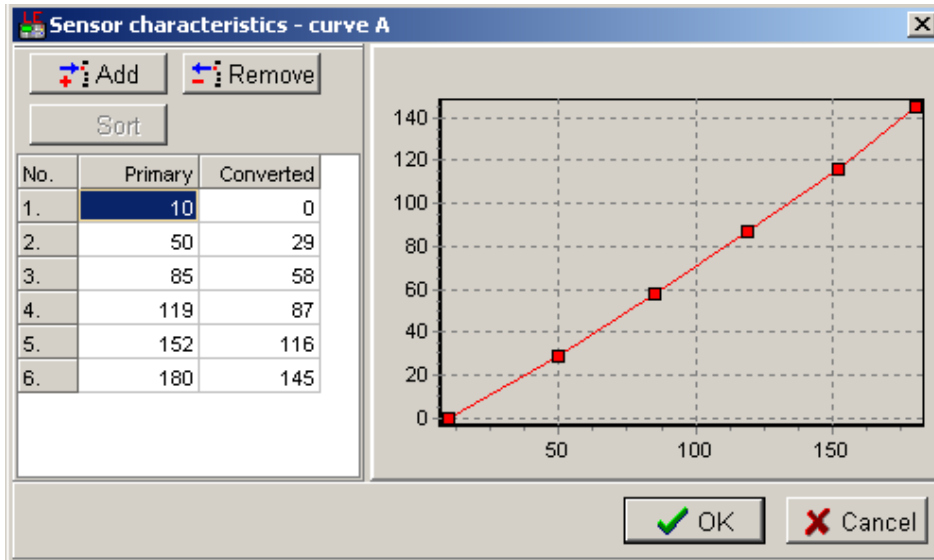
## User sensor curves A, B, C modification



Change Sensor curve name

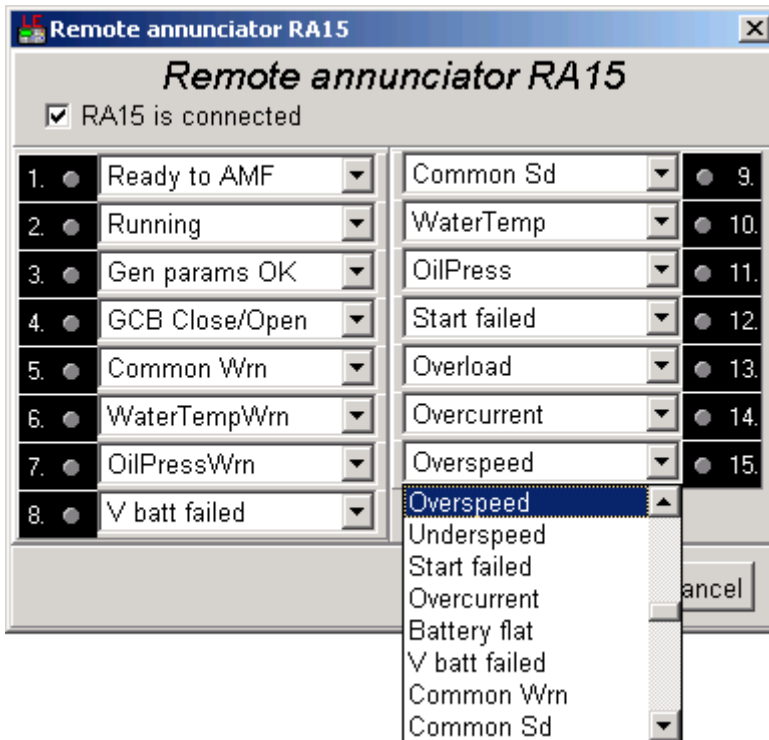
Click on Points button to curve modification.

Use Insert, Delete buttons to modify number of curve points.



### Remote annunciator RA15 configuration

Enable the module in the checkbox “RA15 is connected” a then select required function from the list.

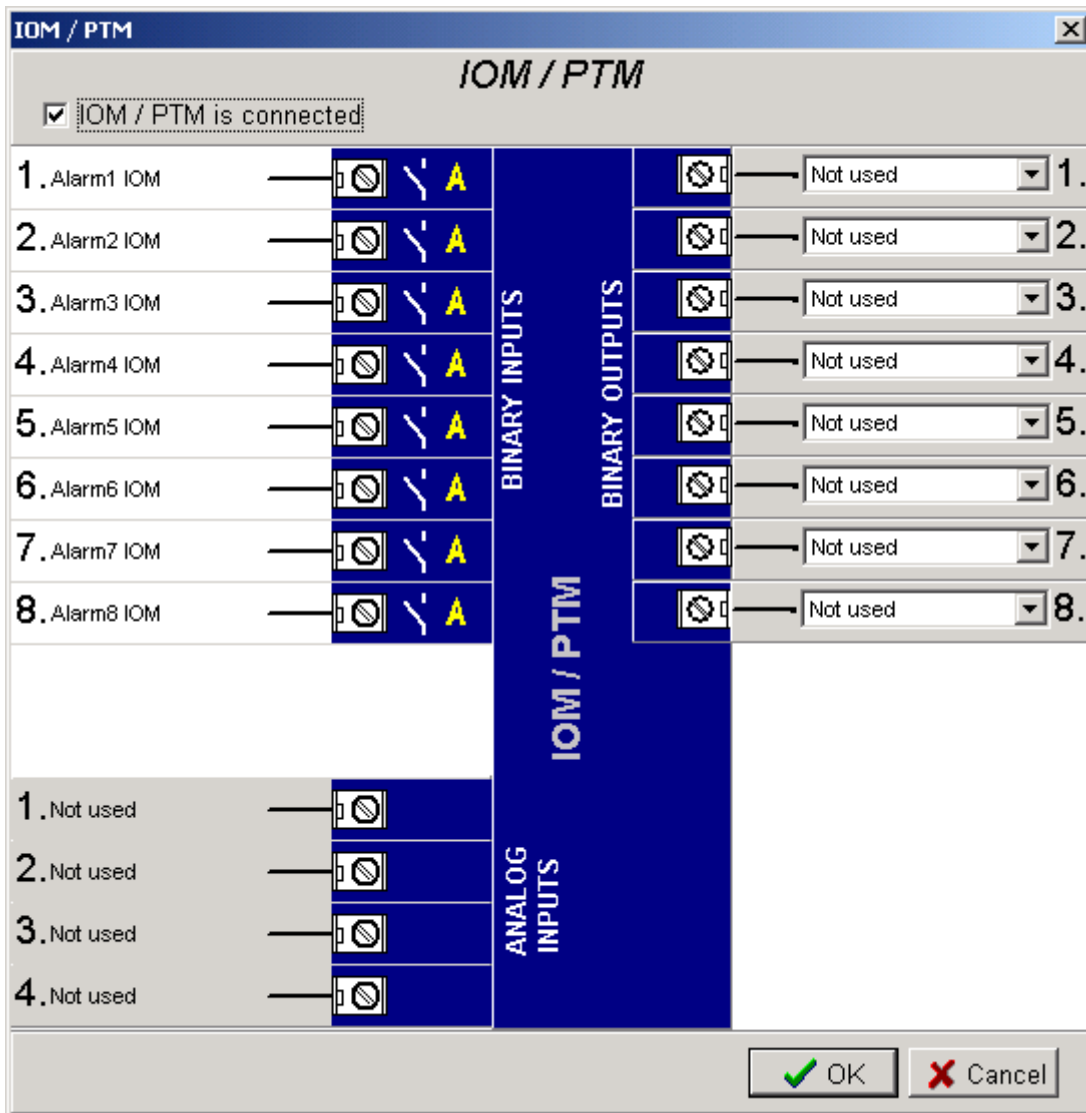


**Hint:**

Indication LED's color and Horn timeout must be configured from RA15 panel.  
 Detail description of Remote annunciator RA15 see in IGL-RA15-1.2.pdf user guide.

## IOM/PTM module configuration

Enable the module in the checkbox "IOM/PTM is connected" and then configure inputs and outputs like on the iL.



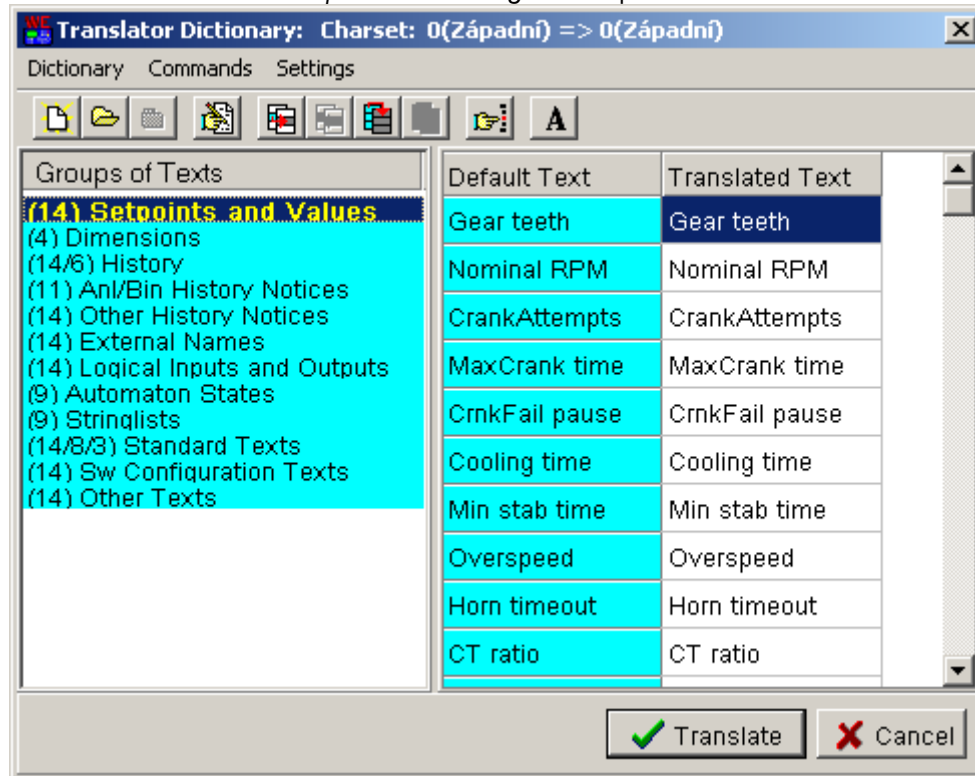
When modification is finished click on  
 Save as ... to save modification to PC or  
 OK to download all archive to controller.

## Controller texts Translator Dictionary

Following tools provide translations of all texts in controller (on line connection) or in archive (off line connection).

### 1-st step

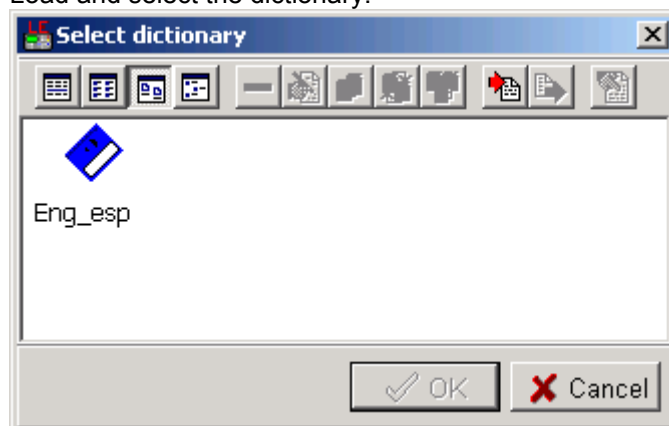
Select: *Controller | Software configuration | Translator*



Texts are arranged in groups. Each group has separate text length limit. Untranslated Default texts are in Cyan background, translated texts changes to Gray background. Cyan Group of texts name background changes to Gray when all group items are translated. Green background indicates that translated text is shortened e.g. to 14 characters.

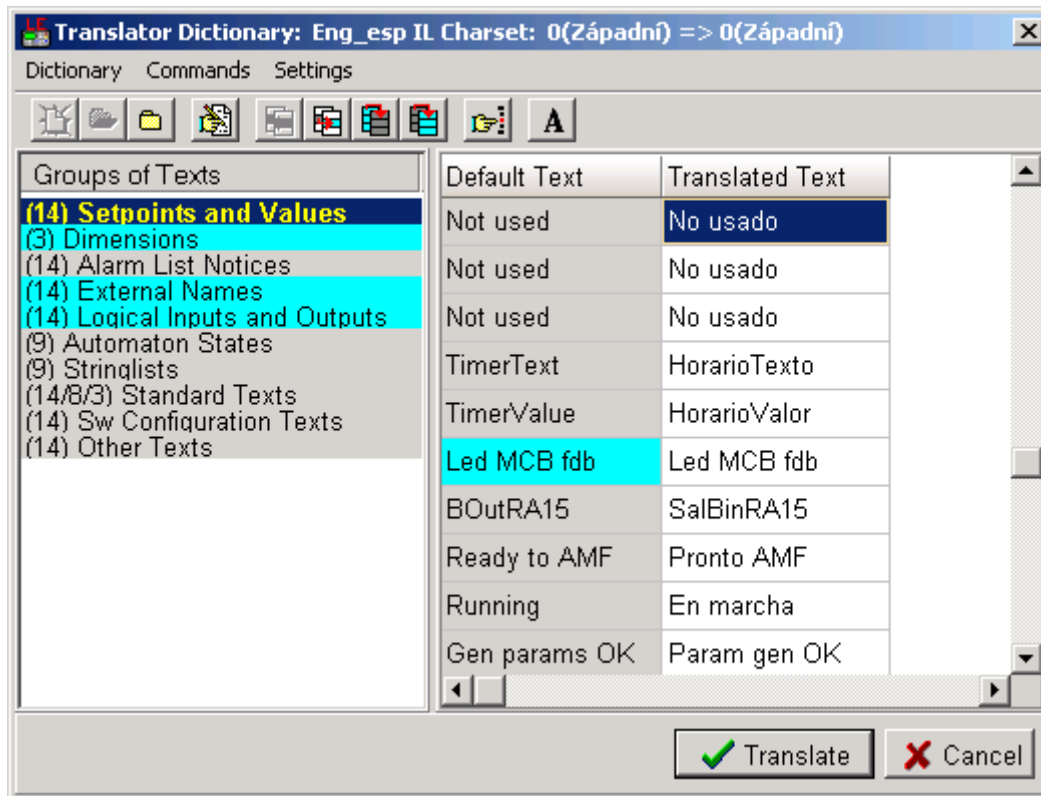
### 2-nd step

Load and select the dictionary.



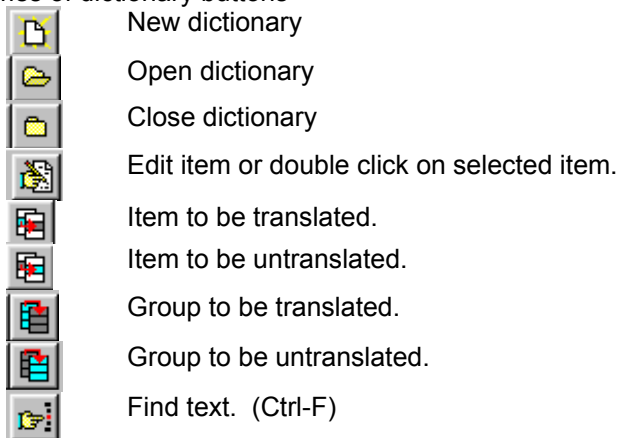
### 3-rd step

Check translation. Translated items and groups are Gray back grounded.

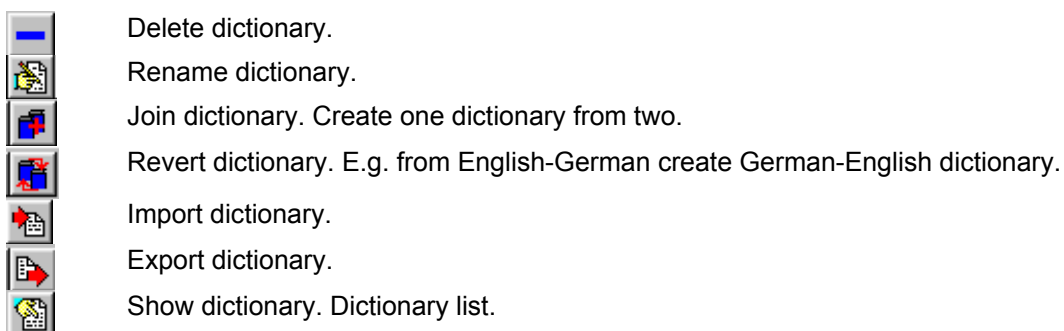


Translate untranslated Items and Save the dictionary.

Names of dictionary buttons



## Dictionary buttons





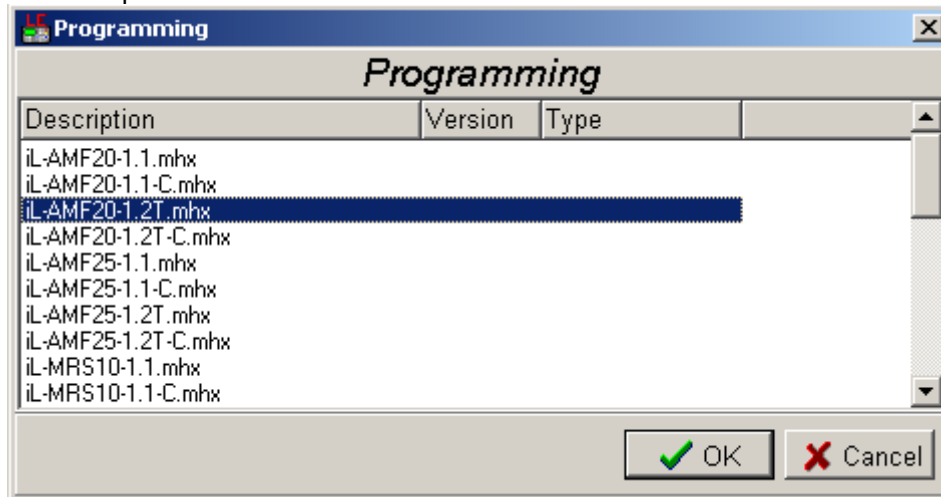
*Hint:*

Take care to respect the length of the names and check the result on controller screens.

Controller has not valid configuration if communication is interrupted during configuration download. Then it is necessary to reset the unit and write the configuration again.

# Controller programming

Select Controller – Programming to open mhx Programming window.  
Select required file and click on OK button.



Hint:

Only firmware (mhx), which corresponds to IntelliLite hardware unit, can be downloaded.  
E.g. iL-AMF25.mhx can be downloaded to iL-AMF25 controller only not to e.g. iL-AMF-20 or another.