

About command (Help menu)

Use this command to display the copyright notice and version number of your copy of PAL.

Groups, Add / Delete Channels

Add/Delete Channels

Type:	Channel	Sort	Insert
Channel:		Add	Delete

Channel List:

- 10101 - (10101) Engine Start Command
- 10102 - (10102) SS ETC1 Overspeed
- 10103 - (10103) Override Request Extern
- 10104 - (10104) Spare
- 10105 - (10105) OVER LOAD
- 10107 - (10107) MAIN SUPPLY PRESENT
- 10108 - (10108) INVALID SYNCHRONIZE
- 10114 - (10114) Bus Loading
- 10112 - (10112) Bus Fail
- 10124 - (10124) Coolant Temp
- 10130 - (10130) RPM Main Engine

- Type Channel, Tagname, Description, Range, All, Empty Line
- Channel / Tagname / Channel number, Tagname, filter of description, Range starting from a channel number to another channel number (should be ascending)
- Filter / From To* Remark: a channel should be existing and its source must not "Not Installed"
- Channel List List of Channels in this Groups

- depends on it's chosen "Type"

Buttons

Add: After a given channel/tagname/range of channels, add the channel(s) to this group

Insert: After a given channel/tagname/range of channels, insert the channel(s) to this group

Delete: After a given channel/tagname/ range of channels, delete the channel(s) from this group

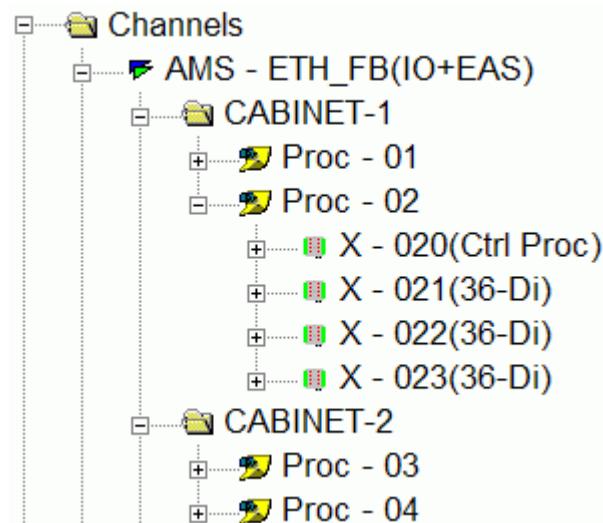
Sort: Sorting all the channels in this group, on channelnumber or tagname

See also:

[Groups](#)

General Settings

Location of these settings is on the tree-item "Proc - 01" at 1-st tab-page, see the following image of the tree area:



By selecting one of the I/O Processors the setup area will show the information that can be configured to local processor:

General Settings | Miscellaneous Table | Board Diagnostics | Channel Cross Reference List | 1131 Reference List

Name:

Automatic Tag Creation:

Automatic Display Deviation

Mini-Guard Panel - No Download

Use Processor Range -

Board Setup

IP Address:

Port:

Use Order Printer ComPort:

Use Local Time On Order Printer

Use Master Clock Update

Remote Data

Select:

Folder name:

Status Text Set Number:

Figure: General Settings with several Remote Data's are connected to this processor

Name For display only, default: Proc

Automatic Tag Creation

Change all tagnames in one action. Example, you like to have: PS-03001..PS-03099
PS-<XP><CH> and press Create
default: <XP><CH>

Automatic Display Deviation

When checked: display deviation will be hidden at channel configuration, and automatically set at highest precision
Example: nr of dec = 1, display deviation = 0.1

Mini-Guard Panel no Download

When this processor is configured as Mini-guard Panel like: Fire-Alarm Panel this checkbox should be turned on.
There will be no configuration settings downloaded to the panel by the IOServer (Marine-PC).

Use Processor Range

When having a configuration where several processors which have exactly the same configuration.
And local channels need to send/receive to other processor with same configuration, this feature needs to be used.

For Example: a PMS having 3 generators with the same configuration (XP61..XP63):

- 1) download XP61 to first Panel (address XP 61)
- 2) download XP61 to second Panel (power down first panel, make address also XP 61 on second panel)
- 3) download XP61 to third Panel (power down first and second panel, make address also XP 61 on third panel)
- 4) change address on second Panel (address should be made XP 62)
- 5) change address on third Panel (address should be made XP 63)

IP Address

An Internet Protocol address (IP address) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication.

An IP address serves two principal functions:

host or network interface identification and location addressing.

Its role has been characterized as follows:

"A name indicates what we seek. An address indicates where it is. A route indicates how to get there."

default for first processor 192.168.1.1, (so-called IP version 4 Address)

Port Ethernet Port, default 502, must be same for all processor.

Use Order Printer / Comport

To activate an order printer.
Special hardware panel needs to be connected.

See: Print Status with options "To Active Only" or "Both" at channels configuration (Analog / Digital or Pulse Input).

Use Local Time On Order Printer When a print output is made "Local Time" or "GMT Time" is used.

Use Master Clock Update

Connect 'Master Clock' pulse inputs on your processor board.
Time-zone will be adapted when pulse inputs doesn't read the expected number of pulses.

Remote Data : Add / Select To insert a remote data plugin on this processor board

Remote Data Possibility to setup a protocol on processor board, when
using this, remember to use the correct board software which is protocol dependent.

Remote Data : Add / Select To insert a remote data plugin on this processor board

Remote Data : Delete To remove a remote data plugin on this processor board

Folder Name For ordering the processors properly is it possible to use Folder Names. When two processors have the same
'Folder Name' then they are placed in the same folder.

Status Text Set Number Channels of this processor use this status texts.

I/O Module (Item Channels, Ethernet Fieldbus, Processor)

After selecting 'Channels', 'Ethernet Fieldbus', Processor Position Table which allows the user to insert a new module.

The screenshot shows a hierarchical tree structure under 'Channels'. At the top level is 'AMS - ETH_FB(IO+EAS)'. Below it is 'CABINET-1', which contains 'Proc - 01' and 'Proc - 02'. 'Proc - 02' has four sub-items: 'X - 020(Ctrl Proc)', 'X - 021(36-Di)', 'X - 022(36-Di)', and 'X - 023(36-Di)'. Below 'CABINET-1' is 'CABINET-2', which contains 'Proc - 03' and 'Proc - 04'. Below the tree is a configuration dialog box with the following fields:

Name:	X
Type:	6034.802 - PMS
Number:	1

At the bottom of the dialog are two checkboxes:

- Disable Board - No Alarms and No Download
- Usage Display Channels

There are several types of I/O Modules:

- 6030.800 - 33 Dio NL-b (= 24-D-out/9 D-in Navigation Lights Bulb)
- 6030.801 - 33 Dio NL-I (= 24-D-out/9 D-in Navigation Lights LED)
- 6030.802 - 33 Dio WW (= 24-D-out/9 D-in Windows Wiper)
- 6030.803 - 18 D-in/18 D-out 18 Digital Input Channels/18 Digital Output Channels
- 6032.800 - 36 D-in
- 6034.800 - 24 A-in
- 6034.801 - 24 Mixed
- 6034.802 - PMS I/O Module
- 6030.805 - BNWAS I/O Module (delivered with TFT Panel 5.7)
- 6034.804 - AFAS I/O Module (delivered with TFT Panel 5.7 or LCD Panel) Advanced Fire Alarm System
- 6034.805 - CFAS I/O Module (delivered with TFT Panel 5.7) Common Fire Alarm System
- 6040.807 - BMS Battery Management System I/O Module
- 6010.888 - HPI I/O Module (integrated with TFT Panel HPI)
- 255 - No Hardware (virtual board, software only)

before a I/O Module a XP (control processor) is configured:

Proc Types:

- 6049.800 - NXP Control Processor
- 6022.640 - TFT Panel (8.4" or 5.7")
- 6022.641 - TFT Panel with Touch Screen (8.4" or 5.7")
- 6022.644 - TFT Panel (8.0")
- 6020.681 - TFT Panel (2.4")
- 6010.800 - TFT Panel HPI with 8.0" (high power inverter)
- 6010.810 - Thruster Control Processor
- 6010.811 - NXP Control Processor with 4 Ethernet Ports

*this is configured first, in other words: before the first I/O-Module there is a control processor placed.
It is possible instead of this control processor a Panel could be configured.*

Panel Types:

- 93.0.920 - 16 Channels Alarm Panel
- 93.0.930 - Navigation Lights Panel
- 93.0.940 - Fire Alarm Panel
- 93.0.950 - Windows Wiper Panel
- 93.0.960 - LCD Operator Panel
- 93.0.970 - BNWAS Panel

The form has following fields:

Name Name of the module in a text string representation

Type Type of I/O module

Number Board number for internal use, can't be changed

Disable Board No Alarms and No Download to this I/O Module

Usage Display Channels For panels with 4 digit display to change channel values

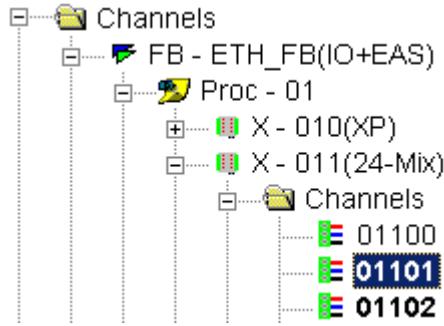
Shortcuts

Icon: 

Place: Channels, Ethernet Fieldbus (I/O), Processor

Channels (Item Channels, Ethernet FieldBus, Processor, I/O Module)

Place: Channels, Ethernet FieldBus, Processor, Board, Channels



There are several types of channels:

- [Digital Input](#)
- [Analog Input](#)
- [Digital Output](#)
- [Analog Output](#)
- [Pulse Input](#)
- [PWM Output](#)
- [Average](#)

All these type of channels have following fields in common:

Channel

- the channel number, can't be changed

TagName

- Enter any tag up to 10 characters. Tags must be unique.

Description

- Enter any descriptive text up to 40 characters

Alt. Description

- Enter any descriptive text up to 40 characters for support a secondary language, if you like to use a another language you should fill in here your description, especially when your language is not based on Roman alfabeth, so when using Chinese, Korean or Japanese Texts, please use this field

Type

- Type of the channel

List Button

- To see where this channel is used, see also [Check Mimics - Channels](#)

Shortcuts

Icon:

Channels, Digital Input (Item Channels, ETH-FB, Proc, I/O-Module, Channels)

For the fields which are in common see [Channels, General](#).

Digital Input has the following fields:

Skip:

- Select 'NO' (channel is processed).
- Select 'YES' (channel is NOT processed).

Channel:	01104	List	Tag Name:	01104
Description:				
Type:	Digital Input	Source:	Not Installed	
			<ul style="list-style-type: none">Not InstalledHardware InputOther ChannelMimicMimic PulseRemote DataIEC - 1131Local DrivenHardware Input + NPNHardware Input + PNP	

Source:

- Select item to set this channel as 'Not Installed', the value of this channel is undefined.
- Select item Hardware Input, to use the value of the physical hardware input.
- Select item Other Channel, to use the status information from another channel.
- Select item Mimic, to use to set the value by Mimic (Pick Action).
- Select item Mimic Pulse, to use to set the value by Mimic (Pick Action), after the set follows direct unset (1.5 sec)
- Select item Remote Data, to use to get the value from an output of a Remote Data.
- Select item IEC - 1131, to use to get the value from an output of a PAL-1131.
- Select item Local Driven, to use to get the value from an I/O-Module (special function, for example overspeed detection).
- Select item Hardware Input + NPN, to use to get the value of the physical hardware input. (only at 24 mix I/O-Module)
- Select item Hardware Input + PNP, to use to get the value of the physical hardware input. (only at 24 mix I/O-Module)

Norm.Cond.:

- Select 'OPEN' for a, default Normally Open, contact on the input.
- Select 'CLOSED' for a, default Normally Closed, contact on the input.

Fail Detect:

This is an option to enable 'Wire Failure' detection on the sensor.

If a Failure is detected it will be reported as an alarm message line on the printer and on the 'ALARM PAGE' on the monitor.

If the value of this channel is used in a Graphic Page the value will change its color to red.

For digital hardware inputs:

- Select '**None**' if no wire failure detection is required
(hardware wire failure detection circuitry is not available for this type of input).
- Select '**Sensor**' if wire failure detection is required.
(For connection of sensors, refer to 'Typical Signal and Sensor Connection Diagram' in the project related drawings).
- Select a '**Channel Sensor Fail**', which fail bit is used, to activate or de-activated this Fail bit.
- Select a '**Channel Status**', which status is used, to activate or de-activated this Fail bit.

Report:

- Status

Alarm No Horn

- Alarm
- Caution
- Emergency Alarm
- Warning

The Report Option 'Status' signifies that the signal is not activating an alarm message on the 'ALARM PAGE' and is not activating the HORN output.

But it will activate the posting of a status message line on the printer if the status changes (If Print Status option is set to 'YES').

Note: If the Sensor Failure is used and the Sensor Failure is activated, it will create an alarm message on the 'ALARM PAGE' and it will post an alarm message line on the printer.

The other report options configure that the signal shows an alarm message on the 'ALARM PAGE' and activates the 'HORN' output.

The HORN on XP and at active server workstation will both turn on. The active server requires group configuration.

When 'Alarm No Horn' is configured it will not activate the HORN output on XP, but it will activate horn on active server (plays the wave file via MPC speaker)

Warning and Caution have a different alarm behaviour as the other options.

When **Warning** becomes active, the horn and its flash state stays on for 2 seconds.

After that time horn output is deactivated and the warning flash state is turned off.

But the warning state stays unacknowledged and after 5 minutes the warning priority will change into Alarm.

Only in case there was no human intervention or the cause of the warning was not rectified.

When **Caution** becomes active, the system shows visual steady alarm (no flash).

The caution will disappear as soon as the cause of the caution is rectified.

It is also possible to have separate alarm-lists with only 'Emergency Alarms', or only 'Cautions', or only 'Warnings'.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Print Status:

The Print Status option is only visible (and can be set-up) on certain Report options. With Report Options: 'ALARM' and 'ALARM NO HORN' the Print Status option is not visible.

Note: In that case alarm message lines are always sent to the printer.

The following selections are possible for status information:

- With Report Option 'STATUS', you can select:
- Select 'TO ACTIVE ONLY' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' is detected for this channel.
- Select 'BOTH' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' or 'ON' to 'OFF' is detected for this channel.
- Select 'OFF' to disable printing of status changes for this channel.

Alarm Delay:

- Enter 1 to 3600 sec (seconds) or min (minutes) before an alarm condition is to be reported.

Inhibitor:

- Type 0 for 'NONE' if no alarm inhibit is desired, or enter the channel number which must inhibit the alarming of this channel.

After Inhibit Delay:

- Enter 1 to 99 sec (seconds) or min (minutes) before the inhibition is released after the inhibiting channel reverts to default.

Status Texts:

- Select from 16 groups of texts shown in the window, to represent the channel's status.

Min. Event Timeout:

- Time to wait (seconds) before next changed sample is stored when this channel is configured in an event logging.

Retain Value + Default Value:

- Make this Channel as Retain Value (Check box);
Channel Value is stored in/restored from database. And also value is stored in flash on hardware XP.
Field of 'DEFAULT VALUE' stores a factory setting, which could be used at special reset via an interaction by an user.

Other Channel:

- Enter the channel whose status to use as input.

Remote Data:

- Enter a remote data number and press on button 'Gateway' to get it's address

Mimic: or Mimic Pulse: or IEC - 1131: or Local Driven:

- No special configuration is needed here

Channels, Analog Input (Item Channels, ETH-FB, Proc, I/O Module, Channels)

For the fields which are in common see [Channels, General](#)

Analog Input has the following fields:

Skip:

- Select 'NO' (channel is processed),
- Select 'YES' (channel is NOT processed).

Sensor:

Choose a selection from the combobox to set-up this channel (see below),

- Not Installed
- J TC: 0 355 °C
- J TC: 0 695 °C
- J TC: 0 760 °C
- K TC: 0 470 °C
- K TC: 0 945 °C
- K TC: 0 1230 °C
- 3w RTD: -40 145 °C
- 3w RTD: -40 750 °C
- 0 - 20 mA
- 4 - 20 mA
- 0 - 1 V
- 0 - 10 V
- -10 ~ 10 V
- Other Channel
- Mimic
- Mimic Pulse
- Remote Data
- IEC-1131
- Local Driven
- Potentiometer

Choose 'Not Installed' to set this channel as 'Not Used', the value of this channel is undefined.

Scan Rate:

- Select a time at which interval the channel must be processed.

Fail Detect:

This is an option to enable 'Failure' detection on the sensor. If a Failure is detected it will be reported as an alarm message line on the printer and on the 'ALARM PAGE' on the monitor and if the value of this channel is used in a Graphic Page the value will change its color to red.

- Select '**None**' if no failure detection is required.
- Select '**Sensor**' if failure detection is required. The detection is activated if there is an access on the measurable limits. (For connection of sensors, refer to 'Typical Signal and Sensor Connection Diagram' in the project related drawings).
- Select a '**Channel Sensor Fail**', which fail bit is used, to activate or de-activated this Fail bit.
- Select a '**Channel Status**', which status is used, to activate or de-activated this Fail bit.

Handle Sensor Fail as Status

- when checked (=active) if channel has sensor failure status, no alarm status and no entry into the Alarm List.

Filter Samples:

- Enter the number of samples (Scans) which ha to be used to calculate the running average. Valid entries are from 1 until 8. The running average will be used for displaying and alarming.

Displ. Deviat:

- Enter the minimal deviation of the value from the last update, to exceed before the value is updated (on the screen) again.

Cold Junction:

- Enter a channel number (only for Therm. Couples)

Two Wire Offset:

- Enter a value between -100 and 100 to compensate the 3rd input (only for 3w-RTD, with TwoWirePTD = YES at Fieldbus Settings, properties table of CANBUS)

Limit Type:

- Select from 6 options on which condition(s) an alarm must be generated.

Lowest Limit:

- Enter value for the lower alarm limit.

Highest Limit:

- Enter value for the higher alarm limit.

Rate Alarm:

- Enter a value change (in 'Eng Unit' per scan) which must generate an alarm if exceeded.
- Select 'NONE' if no rate alarm is desired.

The Report option is to select what alarm report feature(s) will be activated if the alarm is detected. The following selections are possible:

Report:

- Status
- Alarm No Horn
- Alarm
- Caution
- Emergency Alarm
- Warning

The Report Option 'Status' signifies that the signal is not activating an alarm message on the 'ALARM PAGE' and is not activating the HORN output.

But it will activate the posting of a status message line on the printer if the status changes (If Print Status option is set to 'YES').

Note: If the Sensor Failure is used and the Sensor Failure is activated, it will create an alarm message on the 'ALARM PAGE' and it will post an alarm message line on the printer.

The other report options configure that the signal shows an alarm message on the 'ALARM PAGE' and activates the 'HORN' output.

The HORN on XP and at active server workstation will both turn on. The active server requires group configuration.

When 'Alarm No Horn' is configured it will not activate the HORN output on XP,
but it will activate horn on active server (plays the wave file via MPC speaker)

Warning and Caution have a different alarm behaviour as the other options.

When **Warning** becomes active, the horn and its flash state stays on for 2 seconds.

After that time horn output is deactivated and the warning flash state is turned off.

But the warning state stays unacknowledged and after 5 minutes the warning priority will change into Alarm.

Only in case there was no human intervention or the cause of the warning was not rectified.

When **Caution** becomes active, the system shows visual steady alarm (no flash).

The caution will disappear as soon as the cause of the caution is rectified.

It is also possible to have separate alarm-lists with only 'Emergency Alarms', or only 'Cautions', or only 'Warnings'.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Print Status:

The Print Status option is only visible (and can be set-up) on certain Report options. With Report Options: 'ALARM' and 'ALARM NO HORN' the Print Status option is not visible.

Note: In that case alarm message lines are always sent to the printer.

The following selections are possible for status information:

With Report Option 'STATUS', you can select:

- Select 'TO ACTIVE ONLY' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' is detected for this channel.
- Select 'BOTH' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' or 'ON' to 'OFF' is detected for this channel.
- Select 'OFF' to disable printing of status changes for this channel.

Alarm Delay:

- Enter 1 to 3600 sec(onds) or min(utes) before an alarm condition is to be reported.

Dead Band:

- Enter the band (% of 'Eng Unit' range) below an alarm limit in which the alarm condition must remain.

Nr Of Dec:

- Enter the number of decimals and this will be used for display. When this item is changed the display deviation will change automatically also.

Inhib Chan.:

- Select 'NONE' if no alarm inhibit is desired, or enter the channel number which must inhibit the alarming of this channel.

Inhib Delay:

- Enter 1 to 99 sec(onds) or min(utes) before the inhibition is released after the inhibiting channel reverts to default.

Status Texts:

- Select from 16 groups of texts shown in the window, to represent the channel's status. (Texts themselves can be modified from another menu).

Pre-defined Thermocouple

An analog hardware input can be configured as a pre-defined thermocouple sensor:

Sensor: Enter '1' to '6' for the corresponding thermocouple sensor (see above, sensor list).

Cold Junct: Enter the channel to compensate for ambient temperature.

Pre-defined RTD

An analog hardware input can be configured as a pre-defined RTD sensor:

Sensor: Enter '7' or '8' for the corresponding RTD sensor (see above, sensor list).

User Defined Sensor

An analog hardware input can be configured for a user defined sensor

Convert Table:

- Enter '0' ('NONE'): a linear range can now be set-up (see next items).

Eng Unit Low:

- Enter the low end of the linear range.

Eng Unit High:

- Enter the high end of the linear range.

Eng Unit Type:

- Enter up to 5 characters to represent the unit type of the range.

Unit Conversion:

- Select from a editable list which current eng unit type should converted to, for display purposes only, (For example: a sensor measures °C and you like to see °F on your display)

Retain Value + Default Value:

- Make this Channel as Retain Value (Check box);
Channel Value is stored in/restored from database. And also value is stored in flash on hardware XP.
Field of 'DEFAULT VALUE' stores a factory setting, which could be used at special reset via an interaction by an user.

Other Channel:

- Enter the channel whose status to use as input.

Remote Data:

- Enter a remote data number and press on button 'Gateway' to get it's address

IEC - 1131:

- No special configuration is needed here

Mimic:

- To set a channel with certain value by Mimic (Pick Actions)

Mimic Pulse:

- To set a channel with certain value by Mimic (Pick Actions), after the handling of PAL1131 channel value will be resetted to 0

Use Formula:

- Checked if formula "y = ax + b" value will be used.

Remarks about formula's:

This item will only be visible when other channel is chosen.

formula $y = ax + b$:

y = current channel value

x = other channel value

a = factor A

b = factor B

By setting this checkbox on 'true' the formula will be recalculated.

This recalculation uses the current given eng. unit range of this channel.

Normally at other channel the eng. unit range will be used from the input channel.

When a user like to use another eng. unit range as the input channel the Formula will be recalculated when this new range is given.

System wide will this formula only be used when checkbox is checked. (under condition Analog Input and Other Channel)

No Recalculation of Formula:

- When other channel is chosen and an eng. unit is changed, the formula will be recalculated except when this flag is turned on.

Potentiometer:

- When source is Potentiometer, a hardware input, for example: joystick-X, Y, or Z input, this value can be configured between 100 - 20k which is max. range

Print/Log Deviat:

- minimal change (=deviation) of value before printing or logging

Min. Event Timeout:

- Time to wait (seconds) before next changed sample is stored when this channel is configured in an event logging.

Special Value Display Format: like NMEA Latitude:

By setting this value a different representation is shown on Channel / Group / Alarm Page and also on Mimics.

Used for NMEA values showing GPS(=Position) and Time/Date value.

- None
- LAT 1 - xX°XX.XX'+N-S
- LAT 2 - xX°XX.XXXXXX'+N-S
- LAT 3 - xX°XX.XXXZZ'+N-S
- LAT 4 - xX°XX.XXZZZ'+N-S
- LAT 5 - xX°XX'SS.sss"+N-S
- LON 1 - xxX°XX.XX'+E-W
- LON 2 - xxX°XX.XXXXX'+E-W
- LON 3 - xxX°XX.XXXZZ'+E-W
- LON 4 - xxX°XX.XXZZZ'+E-W
- LON 5 - xxX°XX'SS.sss"+E-W
- TIME 1 - XX:XX:XX
- TIME 2 - XX:XX:XX.XX
- TIME 3 - XX:XX:XXZZZ
- DATE - DD-MM-YYYY

Channels, Analog Output / PWM Output (Item Channels, ETH-FB, Proc, I/O-Module, Channels)

For the fields which are in common see [Channels, General](#).

Analog Output has a steady output Voltage or mA signal.

PWM-Output (=Pulse Width Modulation) has block signal (pulse)

it's value controls the duty cycle, ($f=1/T$), 200 Hz.

A large value gives a small pulse, a small value gives a big pulse (width).

internally it's uses the DAC (=digital analog converter) with the full range 0-4096.

Eng unit range will be recalculated to this range of 0-4096.

PWM-Output can be used for dimming.

Analog Output and PWM Output have their own kind of sensor adapter(=piggyback), which on 24-Mix I/O-Module.

Analog Output/PWM Output has the following fields:

Source:

- Choose 'Not Installed' to remove this channel from set-up.
- Choose 'Other Channel' use this channel driven by another channel
- Choose 'Mimic' to set the value from mimic (pick-action)
- Choose 'Remote Data' to receive the value of an output of a Remote Data.
- Choose 'IEC - 1131' to receive the value of an output of a PAL-1131.

Output:

- Select '0-20' mA or '4-20' mA or '0-10' V.

Eng Unit Low:

- Enter the low end of the output range (0/4 mA).

Eng Unit High:

- Enter the high end of the output range (20 mA).

Eng Unit Type:

- Enter up to 4 characters to represent the unit type of the range.

Displ. Deviat:

- Enter the minimal deviation of the value from the last update, to exceed before the value is updated (on the screen) again.

Nr Of Dec:

- Enter the number of decimals and this will be used for display. When this item is changed the display deviation will change automatically also.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Retain Value + Default Value:

- Make this Channel as Retain Value (Check box);
Channel Value is stored in/restored from database. And also value is stored in flash on hardware XP.
Field of 'DEFAULT VALUE' stores a factory setting, which could be used at special reset via an interaction by an user.

Fail Safe Value:

- when Checked(=Active) will show an edit box which contains failsafe value
when value is no longer supplied, this value will be used,
for example: during XP Processor is downloading and I/O-Module doesn't receive any value

Log Deviat:

- minimal change (=deviation) of value before logging

Min. Event Timeout:

- Time to wait (seconds) before next changed sample is stored when this channel is configured in an event logging.

Other Channel:

- Enter the channel number from the channel who will drive this analog output.

Remote Data:

- Enter a remote data number and press on button 'Gateway' to get it's address

IEC - 1131:

- No special configuration is needed here

Channels, Digital Output (Item Channels, ETH-FB, Proc, Module, Channels)

For the fields which are in common see [Channels, General](#).

Digital Output has the following fields:

Act.Cond.:

- Choose "Not Installed" to remove this channel from setup.
- Choose (Multiple Channel Status) to activate the output on the status of one or more channel(s).
- Select item Mimic, to use to set the value by Mimic (Pick Action).
- Select item Mimic Pulse, to use to set the value by Mimic (Pick Action), after the set follows direct unset (1.5 sec)
- Choose item Remote Data, to use the value of an output of a Remote Data.
- Choose item IEC - 1131, to use the value of an output of a PAL-1131.
- Select item Local Driven, to use to get the value from an IO-Board (special function, for example overspeed detection).

Norm.Cond.:

- Choose 'OPEN' for a, default Normally Open, contact on the output.
- Choose 'CLOSED' for a, default Normally Closed, contact on the output.

Print Status:

This option signifies that the signal is not activating an alarm message on the 'ALARM PAGE' and is not activating the HORN output. But it will activate the posting of a status message line on the printer if the status changes (If Print Status option is set to 'BOTH' or 'TO ACTIVE ONLY').

Note: *If the Sensor Failure is used and the Sensor Failure is activated, it will create an alarm message on the 'ALARM PAGE' and it will post an alarm message line on the printer.*

NO-ACK Pls.:

- Select 'YES' if the output has to pulsate when the 'Act.Cond.' becomes true. In this case the output reverts to a continuous signal when the condition is acknowledged.
- Select 'NO' for continuous signal anyway.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Status Texts:

- Select from 16 groups of texts shown in the window, to represent the channel's status. (Texts themselves can be modified from another item)

Digital output activated on Multiple Channel Status

A number of channels can be allocated to one output. A channel can be a digital or analog input or a digital output. The output is made active when any channel gets the 'ALARM' or 'ON' status.

Act.Type:

- For repetitive average alarm: select 'AVERAGE'. The output reverts to default when no channel has an average alarm.
- For repetitive limit alarm: select 'LIMIT'. The output reverts to default when no channel has the 'ALARM' or 'ON' status.
- For repetitive not acknowledged limit alarm: select 'LIMIT/ACK'. The output reverts to default when no channel has on not acknowledged 'ALARM' or 'ON' status.
- For UMS average + limit + sensfail alarm: select 'UMS'. The output reverts to default when all channels are acknowledged.
- For repetitive average alarm including sensfail: select 'Average+SensFail'. The output reverts to default when no channel has an average alarm or sensor failure.
- For repetitive limit alarm including sensfail: select 'Limit+SensFail'. The output reverts to default when no channel has the 'ALARM' or 'ON' status or sensor failure.

- For repetitive not acknowledged limit alarm including sensfail: select 'Limit+SensFail / ACK'. The output reverts to default when no channel has an unacknowledged sensor failure, 'ALARM' or 'ON' status.

Pulse on next:

- Select 'YES' when the output is to revert to default for a 2 sec. pulse, when a 2nd or any further channel gets the 'ALARM' or 'ON' status (not available for average).

Table: (Channel Number - Limit)

Enter the channels. Enter a blank field to remove a channel; enter '0' to create a new field. When getting beyond the last displayed channel, all channels are scrolled one upwards (the '<<<' sign shows more channels are present). When getting beyond the first displayed channel, all channels are scrolled one downwards (the '>>>' sign shows more channels are present). You can enter up to 512 channels for all digital outputs per XP together; an out of memory message is displayed when all are used.

- For analog input / pulse channels select in the second field the active condition:

- DIG/BOTH: Both limits (i.e. LOW + HIGH or HIGH + VERY HIGH, according to channel set-up).
- VY LOW: Very low limit (this and next should correspond to channel set-up).
- LOW: Low limit
- HIGH: High limit
- VY HIGH: Very high limit

- For digital channels the second field should always be DIG/BOTH (= digital).

Min. Event Timeout:

- Time to wait (seconds) before next changed sample is stored when this channel is configured in an event logging.

Retain Value + Default Value:

- Make this Channel as Retain Value (Check box);
Channel Value is stored/in/restored from database. And also value is stored in flash on hardware XP module.
Field of 'DEFAULT VALUE' stores a factory setting, which could be used at special reset via an interaction by an user.

Remote Data:

- Enter a remote data number and press on button 'Gateway' to get it's address

Mimic: or Mimic Pulse: or IEC - 1131: or Local Driven:

- No special configuration is needed here

Channels, Pulse Input (Item Channels, ETH-FB, Proc, I/O-Module)

For the fields which are in common see [Channels, General](#).

Pulse Input can be set on 24mix I/O-Module, 36di and 36dio I/O-Module. At the hardware range and extended range.

24 mix channels: 1-24, 25-28

36 di channels: 1-36, 38-41 (ch 37 used for earth fault)

36 dio channels: 1-9/19-27 (has no extended range)

Normally Pulse Inputs will work with frequency until 100 Hz.

Except for so-called pick-ups, they work until 2kHz.

For RPM Measurement:

At 24 mix I/O-Module, ch2 and ch14 are main pick-ups.

The ch3 and ch15 will be secondary pick-up.

These are the High Frequency Channels. (2kHz)

At 36di I/O-Module ch25 and ch33 are main pick-ups. The ch26 and ch34 secondary.

For 36dio I/O-Module are no pick-ups possible.

Pulse Input has the following fields:

Skip:

- Select 'NO' (channel is processed).
- Select 'YES' (channel is NOT processed).

Channel:	01103	List	Tag Name:	01103
Description:				
Type:	Pulse Input	Source:	Not Installed	
			Not Installed	
			Frequency Measure	
			Pulse counter	
			Up/Down counter	
			RPM Measurement	
			Revolution Counter	
			Asynch RPM Measure	

Source:

- Choose '1st' to remove this channel from set-up.
- Choose '2nd' to use this input as a [Frequency Measure](#)
- Choose '3rd' to use this channel as a [Pulse Counter](#)
- Choose '4th' to use channel as an [Up/Down Counter](#)
- Choose '5th' to use this channel as an [RPM Measurement](#)
- Choose '6th' to use this channel as an [Revolution Counter](#)
- Choose '7th' to use this channel as an [Asynch RPM Measure](#)

Fail Detect:

- Select 'None' (fail detection is not available).
- Failure detection can be driven via an overflow/sensor

Eng Unit Type:

- Enter up to 4 characters to represent the unit type of the range.

Displ. Deviat:

- Minimal deviation of the value from the last update, to exceed before the value is updated (on the screen) again.

Nr Of Dec:

- Enter the number of decimals and this will be used for display. When this item is changed the display deviation will

change automatically also.

Limit Type:

- Select from 6 options on which condition(s) an alarm must be generated.

Lowest Limit:

- Enter value for the lower alarm limit.

Highest Limit:

- Enter value for the higher alarm limit.

Rate Alarm:

- Enter a value change (in 'Eng Unit' per scan) which must generate an alarm if exceeded. Select 'NONE' if no rate alarm is desired.

Alarm Delay:

- Enter 1 to 3600 sec(onds) or min(utes) before an alarm condition is to be reported.

Dead Band:

- Enter the band (% of 'Eng Unit' range) below an alarm limit in which the alarm condition must remain.

Inhibitor:

- Select 'NONE' if no alarm inhibit is desired, or enter the channel number which must inhibit the alarming of this channel.

After Inhib Delay:

- Enter 1 to 99 sec(onds) or min(utes) before the inhibition is released after the inhibiting channel reverts to default.

Report:

- Status
- Alarm No Horn
- Alarm
- Caution
- Emergency Alarm
- Warning

The Report Option 'Status' signifies that the signal is not activating an alarm message on the 'ALARM PAGE' and is not activating the HORN output.

But it will activate the posting of a status message line on the printer if the status changes (If Print Status option is set to 'YES').

Note: If the Sensor Failure is used and the Sensor Failure is activated, it will create an alarm message on the 'ALARM PAGE' and it will post an alarm message line on the printer.

The other report options configure that the signal shows an alarm message on the 'ALARM PAGE' and activates the 'HORN' output.

The HORN on XP and at active server workstation will both turn on. The active server requires group configuration.

When 'Alarm No Horn' is configured it will not activate the HORN output on XP, but it will activate horn on active server (plays the wave file via MPC speaker)

Warning and Caution have a different alarm behaviour as the other options.

When **Warning** becomes active, the horn and its flash state stays on for 2 seconds.

After that time horn output is deactivated and the warning flash state is turned off.

But the warning state stays unacknowledged and after 5 minutes the warning priority will change into Alarm.

Only in case there was no human intervention or the cause of the warning was not rectified.

When **Caution** becomes active, the system shows visual steady alarm (no flash).

The caution will disappear as soon as the cause of the caution is rectified.

It is also possible to have separate alarm-lists with only 'Emergency Alarms', or only 'Cautions', or only 'Warnings'.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Print Status:

The Print Status option is only visible (and can be set-up) on certain Report options. With Report Options: 'ALARM' and 'ALARM NO HORN' the Print Status option is not visible.

Note: In that case alarm message lines are always sent to the printer.

The following selections are possible for status information:

With Report Option 'STATUS', you can select:

- Select 'TO ACTIVE ONLY' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' is detected for this channel.
- Select 'BOTH' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' or 'ON' to 'OFF' is detected for this channel.
- Select 'OFF' to disable printing of status changes for this channel.

Status Texts:

- Select from 16 groups of texts shown in the window, to represent the channel's status. (Texts themselves can be modified from another item).

Remark: With RPM Measurement, Fail Detect has sensor fail. When two RPM Measurements are setuped and those inputs have more than 5% indifference, sensor fail flag is set.

Channels, Average (Item Channels, ETH-FB, Proc, I/O-Module, Channels)

For the fields which are in common see [Channels, General](#).

Average has the following fields:

Alarming:

- Select 'YES' to generate an alarm on any channel from the list, which deviates too much from the average (average alarm). Select 'NO' for average value calculation only.

Low Limit:

- Enter the limit, in engineering units above which the average must be to evaluate average alarms.

Enter the deviation from the average, in engineering units, beyond which an average alarm is generated:

Deviation (at Low Limit):

- Enter here the deviation at the 'Low Limit'.

High Range:

- Enter a high range value if a non-linear deviation is desired.

Deviation at (High Range):

- Enter here the deviation at the 'High Range'.

Note: For a linear deviation (you can enter '0') both the High Range and corresponding Deviation fields are not shown unless the cursor is on these fields. In this case the High Range has no meaning and both Deviation fields hold the same value.

Status Texts:

- Select from 16 groups of texts shown in the window, to represent the channel's status. (Texts themselves can be modified from another item).

Log Deviat:

- minimal change (=deviation) of value before logging

Min. Event Timeout:

- Time to wait (seconds) before next changed sample is stored when this channel is configured in an event logging.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Table Enter the channel list:

CHANNEL:

- Enter the channels. Enter a blank field to remove a channel; enter '0' to create a new field. When getting beyond the last displayed channel, all channels are scrolled one upwards (the '<<<' sign shows more channels are present). When getting beyond the first displayed channel, all channels are scrolled one downwards (the '>>>' sign shows more channels are present). You can enter up to 512 channels for all digital outputs per XP together; an out of memory message is displayed when all are used. N.B.: Digital input and all output channels will have no effect!

BIAS:

- Enter for each channel in the second field the bias, in engineering units, with which the channel's value is compensated before evaluating any average alarm.

An Average Channel can be setup from channel number 37 and higher.

The low limit will inhibit alarming if the average temperature is lower than the low limit.

The deviation at low limit will care that an alarm is set when the difference of between the different channels is higher than the

deviation at low limit.

With "High range" a different deviation can be used when the average is at this high range. The deviation between the "low limit" and "high range" is calculated.

Example:

- Eng Unit = DegC
- Low Limit = 0
- Deviation at Low Limit = 30
- High Range = 500
- Deviation at High Range = 20

Now if the average temperature is 250 degrees, the deviation may be

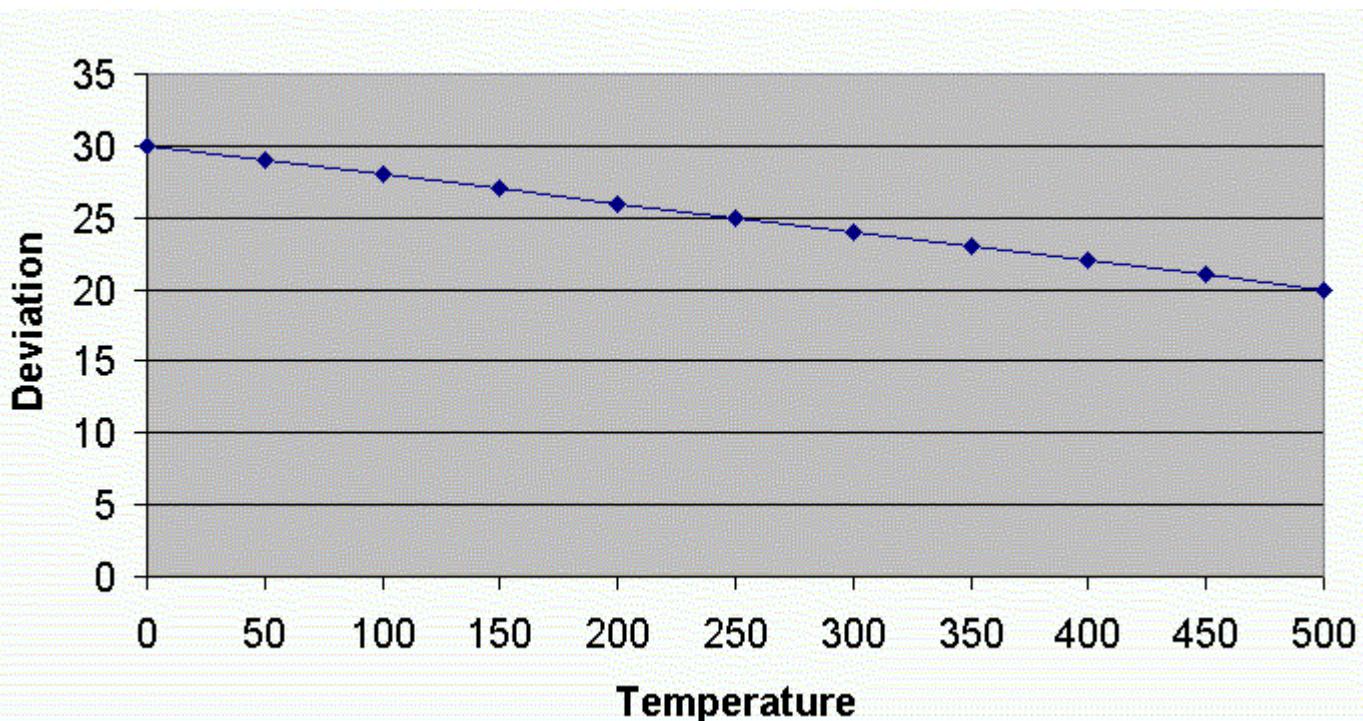
$$250 / (500-0) = 0.5 \text{ (temperature is 50% of High range-Low limit)}$$

$$20 - 30 = 10 \text{ (deviation difference is 10)}$$

$$10 * 0.5 = 5 \text{ (50% of 10 is 5)}$$

$$20 + 5 = 25 \text{ (deviation at 250 DegC is 25 DegC)}$$

The BIAS factor is added to the channel value before it is used in average calculation. A negative BIAS factor can be used to subtract values.

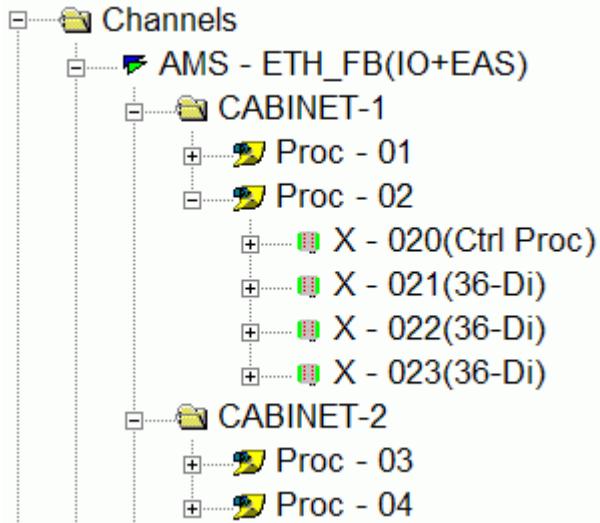


Automatic Mimics Update

To Insert all your mimics from your directory direct into PAL, use this command.

Board Diagnostics

Location of these settings is in the tree area just below 'Channels', see the following image of the tree area:



By selecting one of the I/O Processors the setup area will show the information that can be configured to local processor:

Nr	Channel Nr	Diagnostic
1	10260	CAT: Error Transmit/Receive of CCM
2	10261	CAT: Error of CCM
3	10262	CAT: ComPort Error

Figure: where Remote Data (CCM) is used

This function is for setting up protocol diagnostics if that protocol is running on that same processor. Always keep in mind to use the correct board software with protocol needed.

See Also

[General Settings](#)

Shortcuts

Icon:

Calc Processor Load

After selecting 'Special' and Calc Processor Load

- >  **Special**
 -  Show Changes
 -  Check Database
 -  Print Labels
 -  Calc Processor Load
 -  Check Mimics - Channels
 -  Channel Cross Reference List
 -  Document Database

A text file is generated where all items who are responsible for an extra bus load (=data traffic between processors (among themselves)). It always recommended to keep this bus load as low possible.

A Example of output file:

Result of Calculation of Processor Load

-----Estimate Load of Fieldbus 1-----

Number of Channels As Inhibitor / Other Channel / Cold Junction 10

Number of Channels As Function Input / Output or Fail Detect Function 50

Number of Channels in Multiple Channel / Average 10

Number of Parameters As Channel / Conversion Table / Parameter 100

Number of Function Implementations Inputs As Channel 30

Number of Function Implementations Inputs As Function Implementations 0

Shortcuts

Icon: 

Pulse Input, Frequency Counter (Item Plugins, FieldBus, I/O-Module, Channels)

For the fields which are in common see [Channels, Pulse Input](#).

Pulse Input used as Frequency Counter

A pulse input can be used as frequency counter (Sensor Type 1). In this case the hardware counter will count the pulses during the Scan Rate interval and process the accumulation at the end of Scan Rate interval.

Pulse / Scan:

- Enter a value between 1 and 3000 to indicate the number of pulses per Scan Rate (interval)

Scan Rate:

- Processing interval on which the counter value will be evaluated (processed)

Range:

- Range limit when during the Scan Rate the number of Pulses / Scan are counted.

Example:

We have flow meter which gives a frequency of 0-40 Hz for a flow of 0-500Liter.

In the above sample the value will be processed each 5 seconds (Scan Rate). If we count 150 pulses (which equals 30Hz)

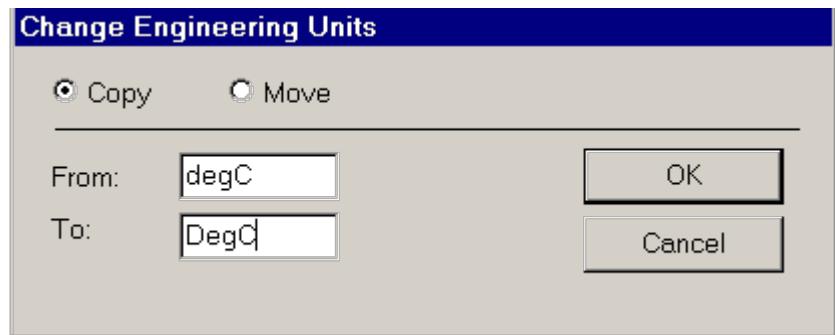
$$\frac{150(\text{input})}{200(\text{Pulses/Scan})} \times 500(\text{range}) = 375\text{Liter}$$

within this interval the value of this channel will indicate .

Change Engineering Units

Change Engineering Units can be found at the Special menu.

A example:

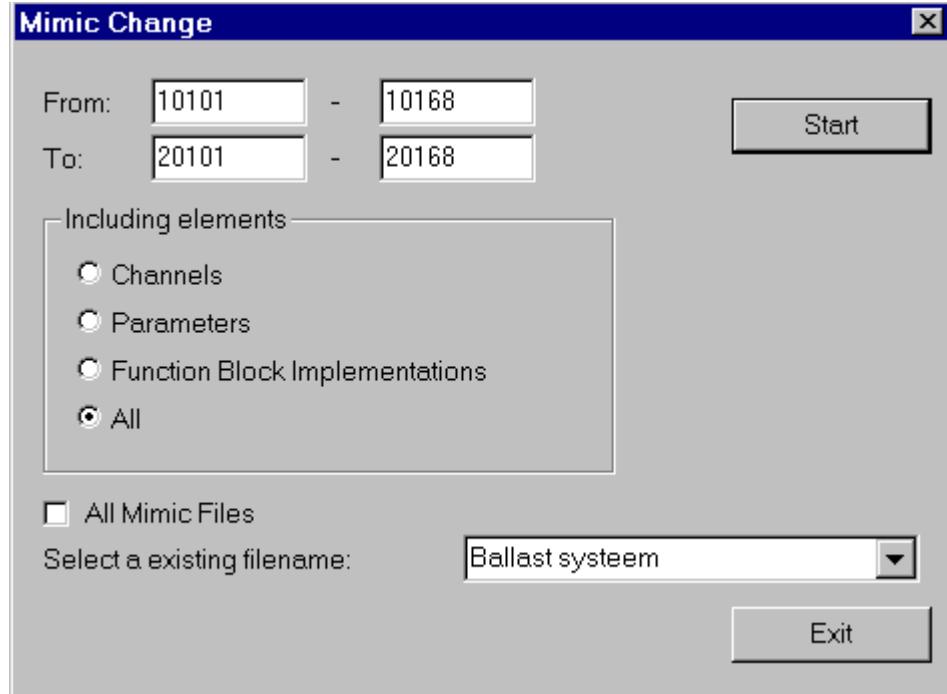


After this action is everywhere in channel setup where 'degC' is used, will be changed into 'DegC'.

See: [Engineering Units](#)

Change Mimics

Menu - Special, Change Mimics



Function / Channels / Parameters reference numbers inside in the mimic file could be renumbered.
All mimics could be chosen or just one mimic. Same for type reference.

BE SURE: THAT DESTINATION BOARDS ARE EXISTING OR YOUR MIMIC WOULD NOT WORK PROPERLY!

Do not use this function when complete system (running ioserver) is on-line.

Channel Cross Reference List

After selecting 'Special' and Channel Cross Reference List

- [-]  Special
 -  Show Changes
 -  Check Database
 -  Print Labels
 -  Calc Processor Load
 -  Check Mimics - Channels
 -  Channel Cross Reference List
 -  Document Database

Header Texts

Title:	Channel Cross Reference List
I/O Processor:	I/O Processor
Local Channel:	Local Channel
Type:	Type
Global Variable:	Global Variable
System Channel:	System Channel
From Other Channel:	From Other Channel

Board Range:

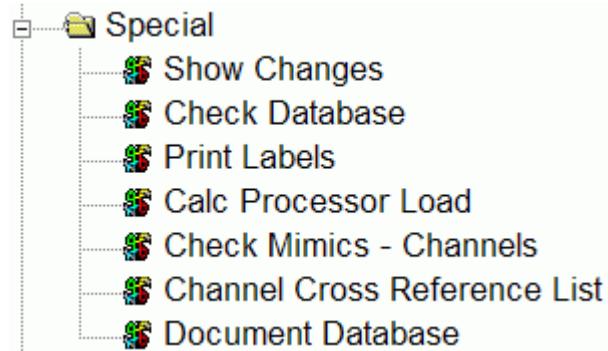
Insert a board range of what an output is wanted. By pressing on 'Print' button a list is generated where 'Other Channel' is used in that given board range. This feature is normally used for configuring IEC-1131.

Shortcuts

Icon: 

Check Database

After selecting 'Special' and 'Check Database'



A text file is generated where configurations errors are displayed.

This list is built per PAL session. Press **F5** for re-check database, be sure that caret (focus) is blinking inside the text form.

Example:

- *****No existing conversion tables are used with*****

Channels - Conversion Tables List :

20239(1),

Comments: if you go channel 20239, and see that Convert Table = %Table1, what means there is no table1

- *****No existing function implementations are used with*****

Channels Function Output - Function List :

20319(-0),

Comments: if you go channel 20319, and see that source is function output, but there is no function output chosen

- *****No existing elements are used with Clustering*****

Boards List :

106(1-8),

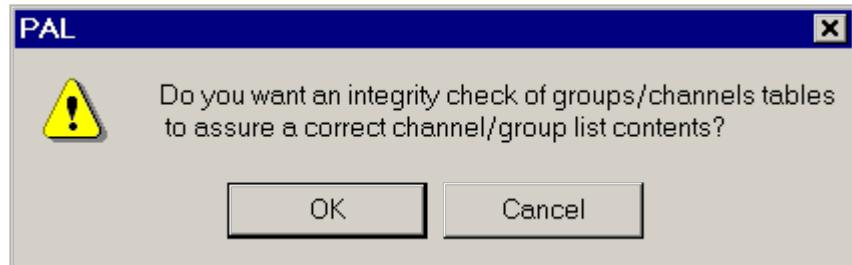
Comments: if you go cluster 01, and look at table line 8, there is board setup which is not existing

Shortcuts

Icon: 

Check Database

After selecting Menu, 'Special' and 'Check Database', the following message is generated:

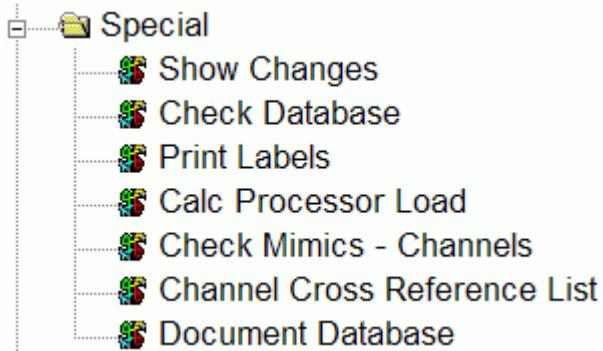


In past there were some problems with groups vs channels storage. To solve this, this functionality was created.

Does your group configuration still show faulty behaviour, it is recommended to execute this function.

Check Mimics

After selecting 'Special' and Check Mimics - Channels



A text file is generated where all references per mimic file are displayed

A Example of output file:

Result of Check Mimics

```
*****List of Channels are used inside a Mimic*****
```

```
FireAlarm.g
28517,28520,29320,29517,29320,29515,29310,29523,29525,29521,29513,29302,29302,29310,28515,28508,28521,28522,27402,00001,29358,
29322,29361,28524,29329,29362,28525,29330,29360,29319,13306,12609,12510,12508,12509,12513,12512,12511,13304,13305,28718,27405,
```

```
,28717,27403,28719,27404,28720,27406,27407,27402,29339,29336,29328,29357,29321,28601,28602,29359,29327,28504,29302,29310,29320,
```

```
,28508,28512,27407,29340,29341,27406,27405,27403,27404,
```

```
TestFireAlarm.g
```

```
-- FILE NOT FOUND --
```

Possibility to see where a certain channel is used.

Selecting Channel Form:

The dialog box has two fields: 'Channel:' containing '20103' and a 'List' button to its right. Below it is another field 'Description:' containing 'TIDE'.

After pressing "List" button following dialog is displayed:

The dialog box title is 'List of Channel - 20103'. It contains a table with three columns: 'Reference', 'Name', and 'Connection Input'. There are two rows: one for 'Other Channel' with 'Name' 26145 and 'Connection Input' empty; and one for 'Mimic' with 'Name' G265.g and 'Connection Input' 1x. An 'Ok' button is at the bottom right.

Reference	Name	Connection Input
Other Channel	26145	
Mimic	G265.g	1x

Shortcuts

Icon:

Choose Color dialog box

By clicking on one of the colors a color will be selected. By pressing the “OK” button the chosen color is handle by the Pal.

Clear Show Changes command (Special)

This command clears the file where all show changes are stored. The file “showchang.txt” would be empty. This file could be found at the directory where “Pal.exe” is kept.

Clustering

Clustering can be found at the system parameters.

System Parameters

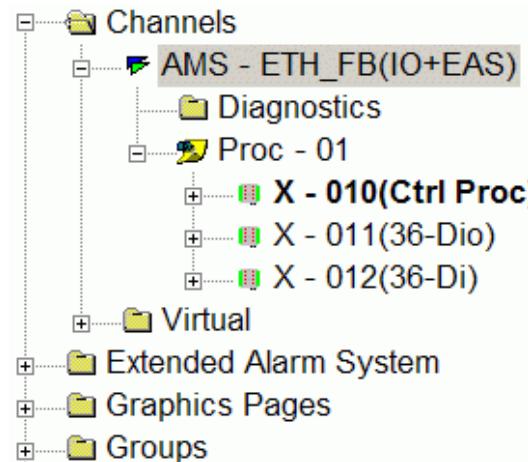
- Clustering
 - 01 - AMS
- Diagnostics
 - General Texts
 - X - 1000
 - X - 1001
 - X - 1010
- Display Conversion
- Engineering Units
- General Settings
- Horn - 1 (General)
- Horn - 2 (Additional)

To make groups (=clusters) with lops panel and/or processors which to define when horn output should be stopped in case of accept pressed.

Number:	01			
Description:	AMS			
Nr	Function	Link Nr	Nr	
1	Processor	1	1	
2	Processor	1	2	
3	LOP	1	1	
4	LOP	1	2	
5	LOP	1	3	
6				
7				

Communication Settings

Location of these settings is on the tree-item "AMS - ETH_FB(IO+EAS)" at 3rd tab-page, see the following image of the tree area:



General Settings | Processor Position Table | **Communication Settings** | General I/O Module Setup | PAL1131 Data Between XPs

Server Settings

XP Life Check Time-out (active link timer):	<input type="text" value="5"/> Sec
XP Life Check Time-out (inactive link timer):	<input type="text" value="25"/> Sec
Send download if XP is empty:	<input type="text" value="Yes"/>
Value to zero if XP is not present:	<input type="text" value="No"/>

Settings for transferring channel data between XPs

Tx Priority 1 (in ms):	<input type="text" value="100"/>
Tx Priority 2 (in ms):	<input type="text" value="100"/>
Tx Priority 3 (in ms):	<input type="text" value="200"/>
Tx Priority 4 (in ms):	<input type="text" value="1000"/>

Server Settings:

XP Life Check Time Out (active link timer):

Time Out in seconds when IOServer is running Active (or Active Link of MAXI-GUARD)

XP Life Check Time Out (inactive link timer):

Time Out in seconds when IOServer is running Standby (or Standby link of MAXI-GUARD)

Send download if XP is empty:

When XP has no set-up information it will automatically ask to IO-Server give me my setup information.

XP will always do this, but IO-Server can decide not to answer to this call. This decision is made by this flag.

Value to zero if I/O Module is not present:

If This flag is set XP will reset the value and statuses of I/O Module when no communication is possible (I/O Module is down).

Remark: When XPs are not present "Not Available" status will be set by IOServer.

Settings for transferring channel data between XPs:

Tx Priority 1 (in ms)

Channels can be prioritize individually, how fast they need to be sent to another processor.

Compact Database

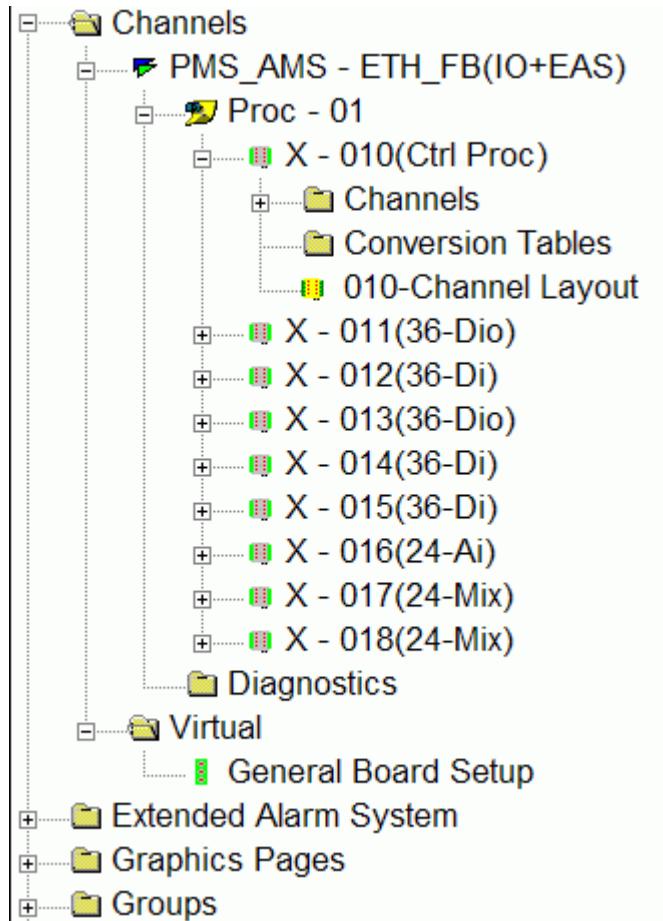
If you edit/insert/delete a lot of items in Pal, it would be wise to compact your database.

After using this command the database file would be smaller in size(Kb). This is due to internal behaviour of database itself.

This could be done with ‘upgrade.exe’ program. (Advanced functions)

Conversion Tables

Expanding the tree area on the specific I/O Module will give you for example the following image:

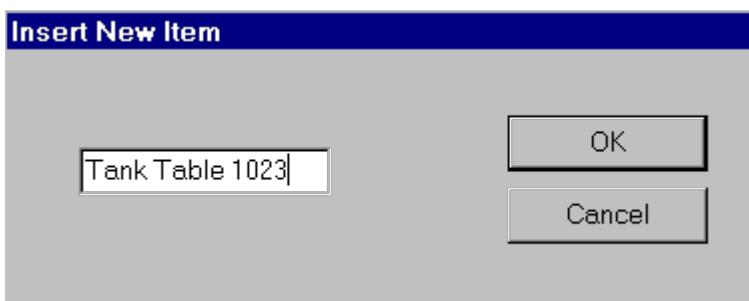


For each I/O Module you can setup channels (hardware or virtual) and conversion tables.

Adding and Deleting Conversion Tables:

Adding a conversion table:

- Select in the related Field Channels - Ethernet I/O, the Processor folder and then the Conversion Table folder in the tree and click it with the right pointing device key or press the context menu key on the keyboard.
Select 'Insert' from the context menu and the following menu will appear:



Name:

- Enter the user definable field to describe the username for this table.
This field is used for documentary reason only. This user name will be used in the tree area.

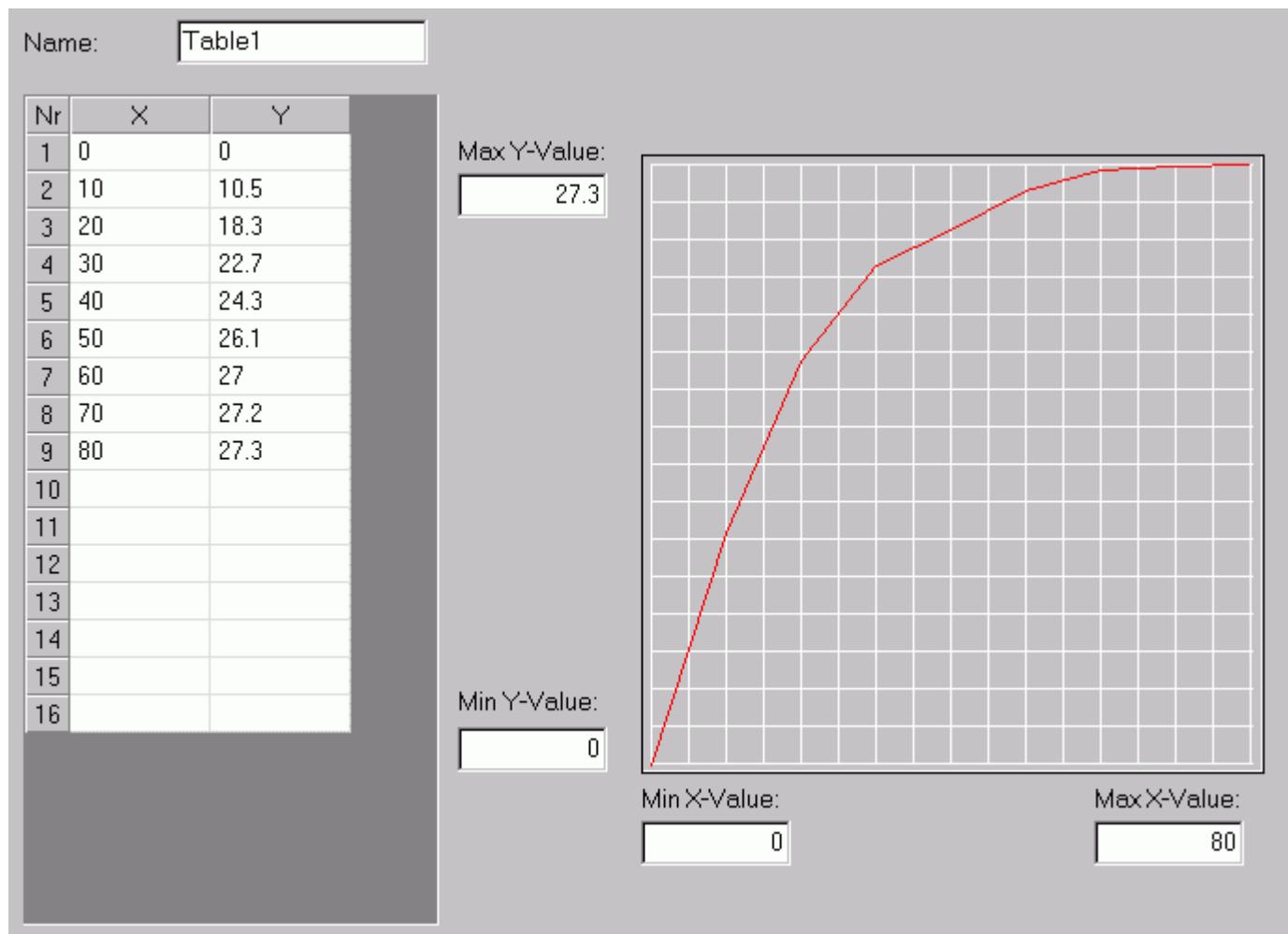
Deleting a table:

- Select the specific table in the tree area that should be deleted and press the delete key on the keyboard.

User defined linearization tables (e.g. tank table) can be set-up for analog input channel conversion.
Up to 16 tables can be setup for each I/O module.

Select the desired Conversion Table from the Tree area or create a new table on an I/O module.

The following screen will appear:



Name:

Enter the name of the table. This name will be used as indication in references to this table and in the Tree Area.

How to use:

A conversion table should be connected to an analog input channel. There are two options:

1. Connection to analog hardware channel (like 0-20mA / 4-20mA / 0-1V / 0-10V)
This option has a fix X-range of 0-1000.0 (this is the default).

2. Connection to analog channel with source "other channel"

When a conversion table is configured to a hardware channel, the same table could not be used for another option (=other channel).

X-min and X-max values could only be adapted when a conversion table is connected to analog channel with source "other channel".

Remark: be aware that X-min and X-max in that case will be used as default for eng. unit range and limit range.

X & Y Table:

In the 'X' column enter values between 0 and 1000.0 promille, they span the range of the input sensor.
You must start from 0.0 (fixed!) and conclude with 1000.0 (for the 16th -last possible- entry fixed!).

In the 'Y' column enter the corresponding value in engineering units.

All values within one table must be either pro- or regressive.

In this example half scale evaluates to 40 and e.g. 89% scale to 80 (m3).

Note: The graphic area gives a preview of the defined curve. And is just for indication.

Copy I/O Module Range

Menu - Special, Copy I/O Module Range

Copy or Move I/O Modules

I/O Module Range

From: - Move Delete Source at Move

To: -

Channel Description - Text Replacement

From:

To:

Only Prefix

Copy Including

Channels Retain Values
 1131 List Default Values
 Conversion Tables
 Channel Cross Reference List
 LCD Config - Parameter List
 LCD Menu - No Channel Renumbering
 TFT - Alarm/Event Logging
 Pool List
 Pool List - No Channel Renumbering
 Miscellaneous Table
 XP Label Texts
 XP Diagnostics
 Channels - Groups Information
 Use Group Offset
 I/O Module References Vice Versa
 Create I/O Modules if not Existing
 Remote Data

Special Actions

None
 Export to File
 Import from File

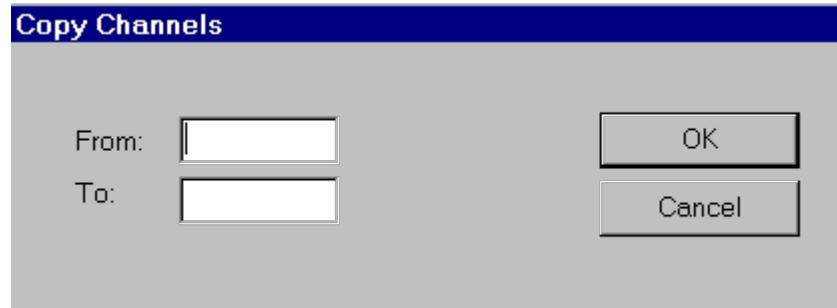
Complete I/O-Modules and their reference could be copied to another I/O-Modules. With checkboxes is possible to include/exclude special kind of reference(s). (Including at Copy)

Channel Description Text Replacement: like 'SB' could be replaced by 'PS'. (prefix only, if wanted)

Do not use this function when complete system (running ioserver) is on-line.

Copy Channel command (Special)

To copy channel contents to another channel. After choosing this command the following dialogbox is appearing:

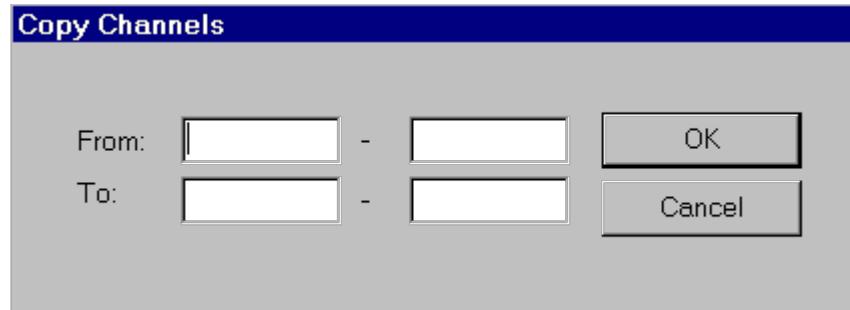


Type in "From" its channel number which would be copied. Type in "To" its channel number which would be stored the new values.

It's also possible to copy a range of channels. For more details see: [Copy Channel Range](#)

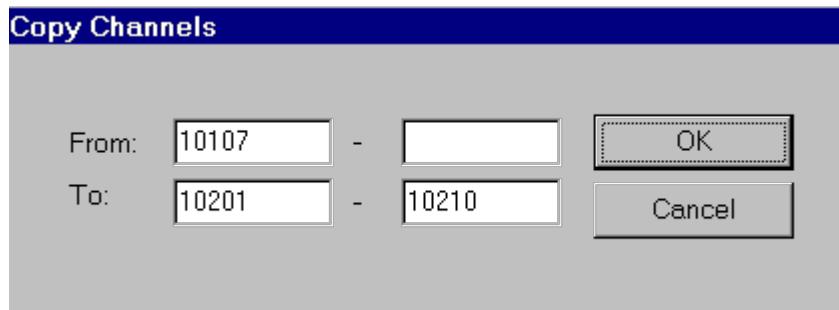
Copy Channel Range command (Special)

To copy channels contents to another channels. After choosing this command the following dialogbox is appearing:



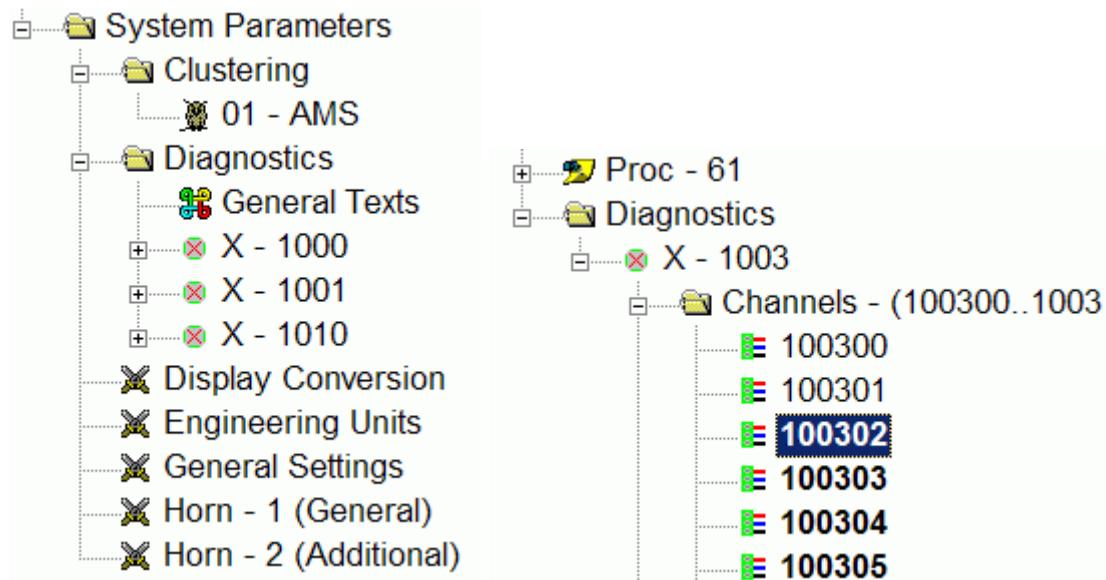
Type in "From" its channel numbers which would be copied. Type in "To" its channel numbers which would be stored the new values.

It also possible to copy one channel to range of another channels. This is done by clearing (or no input at) the second field of "From". See picture below.

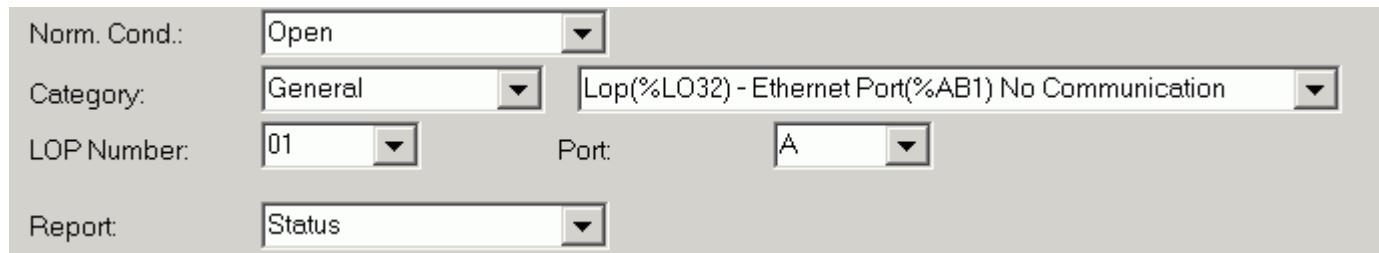


Diagnostics

For signalling system statuses diagnostics are there. Diagnostics can be placed at it's Channels - Ethernet Fieldbus or at the System Parameters.



At middle of the screen, you will find:



By selection of category and it's message, it needed to setup a diagnostic. Sometimes is it necessary to fill in extra details, like board number of fieldbus/remote data number. After selection is made automatically changes is made inside the description field.

Tip: With 'Copy or Move Channel Range' is possible to setup a lot diagnostics very fast.

Open 'Copy Channel Range' dialog, fill in From 103001, To 103002 / 103030. Press Ok. Now copy is made from channel 103001 to a range of 103002 to 1030030 where last parameter (like board number) is increased every time.

For extensive description of another items on this form see:

[Channels, General](#)

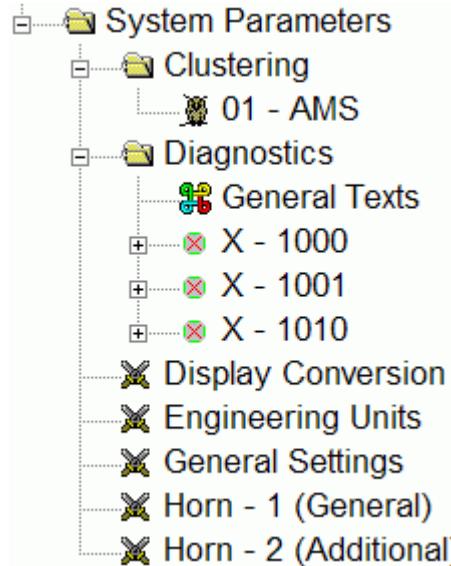
[Channels, Digital Input](#)

Shortcuts

Icon:

Diagnostics – General Texts

Diagnostics Texts can be found at the system parameters.



It's possible to change diagnostic default texts, only for Alt. Language.

See Also:

[Diagnostics](#)

[Job and Language – General Settings](#)

Display Conversion

After selecting 'System Parameters' and 'Display Conversion'

System Parameters

- Clustering
 - 01 - AMS
- Diagnostics
 - General Texts
 - X - 1000
 - X - 1001
 - X - 1010
 - Display Conversion
 - Engineering Units
 - General Settings
 - Horn - 1 (General)
 - Horn - 2 (Additional)

Display Alternate Engineering Unit			<input type="checkbox"/>	<input type="button" value="Test Formula"/>
Nr	Unit1	Unit2	Formula	
1	M	Feet	3.281*Unit1	
2	Bar	PSI	14.504*Unit1	
3	DegC	DegF	(9 / 5) * Unit1 + 32	
4	M3	BLS	6.29*Unit1	
5	M3	Gal	264.172*Unit1	
6	M3	Ft3	35.315*Unit1	
7	MH2O	FH2O	3.281*Unit1	
8	DegF	DegC	(Unit1 - 32) * (5 / 9)	

Sometimes it is preferred to display another engineering unit. Example is like: A thermal couple is delivering its value into °C but on display is °F required. In that case display conversion functionality can be helpful.

Unit1 original measure value in engineering unit 1

Unit2 display value in engineering unit 2

Formula re-calculation formula

Display Alternate Engineering Unit If turned on, it is possible to use display conversion*

Test Formula a button to test the new inserted formula, it will be tested with three values: -100, 0 and 100

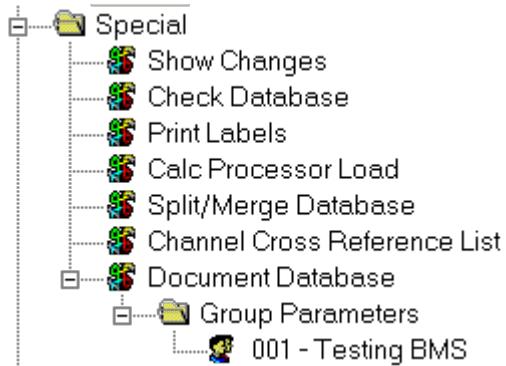
At Channel Analog Input/Analog Output or Pulse Input a new field is shown '**Unit Conversion**'.

Channel:	03104	List	Tag Name:	03104
Description:	DG PS AFTERCOOLER COOLANT TEMPERATURE			
1131 Name:	NOT USED - C104 - (FINT)			
Type:	Analog Input	Source:	Other Channel	Skip: No
<hr/>				
From Channel:	03004			
Fail Detect:	None			
Convert Table:	None			
Eng Unit Low:	-999999.0	Eng Unit High:	99999999.0	Eng Unit Type: DegC
Displ. Deviat:	0.1	Unit Conversion:	2 - DegF	

With this it is possible to configure an another engineering unit. This is for display only.

Document Database

After selecting 'Special' and



Insert several items for document database. Only available if the file 'doc.mdb' is same path as config.mdb. This form shows project related stuff like, project number, vessel, owner, yard and it's built number.

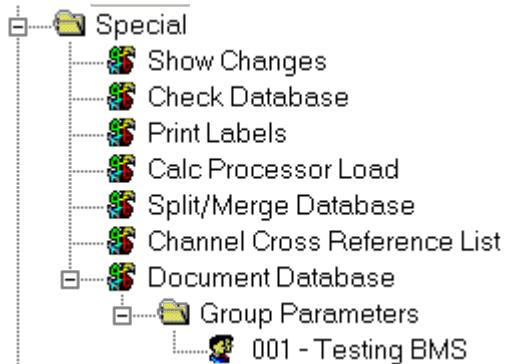
Create Default Layout creates default sensor information, if you go to the fast channel setup, see last columns.

Shortcuts

Icon:

Document Database - Group Parameter

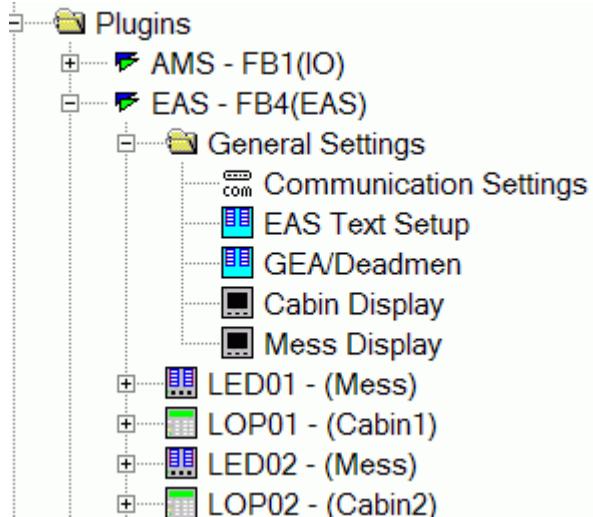
After selecting 'Special' and 'Document Database' and 'Group Parameter'



Several parameters could be grouped. This feature for documentation only.

EAS - Communication Settings

Location of these settings is in the tree area just below Plugins / EAS Fieldbus see the following image of the tree area:



Server Settings:

Server Settings	
Server Life Check Time Out (active link timer):	<input type="text" value="5"/> Sec
Server Life Check Time Out (inactive link timer):	<input type="text" value="25"/> Sec

Server Life Check Time Out (active link timer):

Time Out in seconds when IOServer is running Active (or Active Link of MAXI-GUARD)

Server Life Check Time Out (inactive link timer):

Time Out in seconds when IOServer is running Standby (or Standby link of MAXI-GUARD)

EAS Text Setup

For general information see also [Extension Alarm System](#).

The EAS text setup is used to define the text strings on the top rows of the system and for the strings send to the page of the Local Operator Panel indicator(s)

Text for EAS page and EAS button indications:

Cabin1	Chief Eng.
Cabin2	1st Engineer
Cabin3	2nd Engineer
Cabin4	3rd Engineer
Cabin5	4th Engineer
Cabin6	5th Engineer
Cabin7	6th Engineer
Cabin8	7th Engineer
ECR attended line 1	Attended
ECR unattended line 1	Unattended
Alarm indicator status text active	Alarm
Alarm indicator status text inactive	Normal
Call indicator status text active	Call
Call indicator status text inactive	—
On duty indicator status text active	OnDuty
On duty indicator status text inactive	—
Attended indicator status text active	Att
Attended indicator status text inactive	—
Unattended indicator status text active	UnAtt
Unattended indicator status text inactive	—

Text used for the Status Indication Buttons (button color is yellow) and LOP indicator(s):

Selected On Duty Engineer status:

The status indication button / LOP indicator can indicate the following text (max 10 characters):

Cabin1 - CHIEF ENG.
Cabin2 - 1-ST ENG.
Cabin3 - 2-ND ENG.
Cabin4 - 3-RD ENG.
Cabin5 - 4-TH ENG.
.. - ..
Cabin31 - 31-TH ENG.

Attended / UnAttended / Along Side status:

The status indication button / LOP indicator can indicate the following text (max 10 characters):

ATTENDED
UNATTENDED
ALONG SIDE

The positions for these two status indication buttons are the two most right locations. If one of these buttons is pressed the

system will show the 'On duty' (mimic) page.

Unattended indicator status text inactive	—	—
EAS Button Text - Call	CALL	OPROEP
EAS Button Text - Call All	CALL ALL	OPROEP ALL
EAS Button Text - Select	SELECT	SELECT
EAS Button Text - Attended	ATTENDED	BEMAND
EAS Button Text - UnAttended	UNATTENDED	ONBEMAND
EAS Button Text - Along Side	ALONG SIDE	AAN DE WAL
EAS Button Text - Sailing	SAILING	VAREN
EAS Button Text - Select - Chief Eng.	SELECT CHIEF ENG.	KIES HOOFD ING.
EAS Button Text - Select - 1-31 Eng.	SELECT 1-31 ENG.	KIES 1-31 ING.
EAS Button Text - Call - Chief Eng.	CALL CHIEF ENG.	OPROEP HOOFD ING.
EAS Button Text - Call - 1-31 Eng.	CALL 1-31 ENG.	OPROEP 1-31 ING.

Furthermore there are text which are used inside client, so-called EAS Button Texts:

- Call
- Call All
- Select
- Attended
- UnAttended
- Along Side
- Saling
- Select Chief Eng.
- Select Eng. 1-31
- Call Chief Eng.
- Call Eng. 1-31

EAS Info Header - EAS Page	EAS	EAS
EAS Info Header - Alarm Page	ALM	ALM
EAS Info Header - Group Page	GRP	GRP
EAS Info Header - Channel Page	CHN	KNL
EAS Info Header - Along Side Page	ASP	AWP
EAS Info Header - General Page	GEP	ALP
EAS Info Header - Menu Page	MNP	MNP
EAS Info Header - Engine Room	ER:	MK:
EAS Info Header - Attended State	ATT	BM
EAS Info Header - Unattended State	UNATT	ONBM
EAS Info Header - Along Side State	ALONG	WAL
EAS Info Header - On Duty	DUTY:	DNST:

Also there are texts which are used on LOP, so-called EAS Information Header Texts.

Example:

ALM ER:ATT DUTY:First Engineer 12:00

ALM for alarm page

EAS for EAS Page

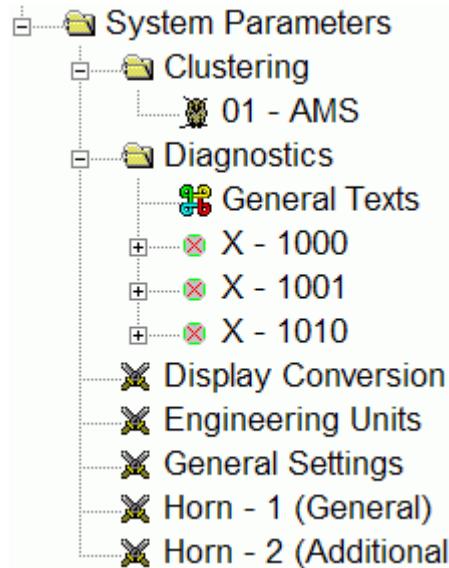
CHN for Channel Page

GRP for Group Page

See Also: 'Use EAS Info in Header line on LOP' [LOP Configuration](#).

Engineering Units

Engineering Units can be found at the system parameters.



Update From Channels Table	
Nr	Unit
1	degC
2	Hrs
3	-
4	%
5	DegC
6	f
7	H:M:S
8	Hz
9	kA
10	kVAr
11	kW
12	rpm
13	Volt
14	

By clicking on 'Update From Channel Database' all different engineering unit types are displayed.

Example:

At analog input channel, a dropdown list is shown with all used engineering unit types.

Eng Unit Type:

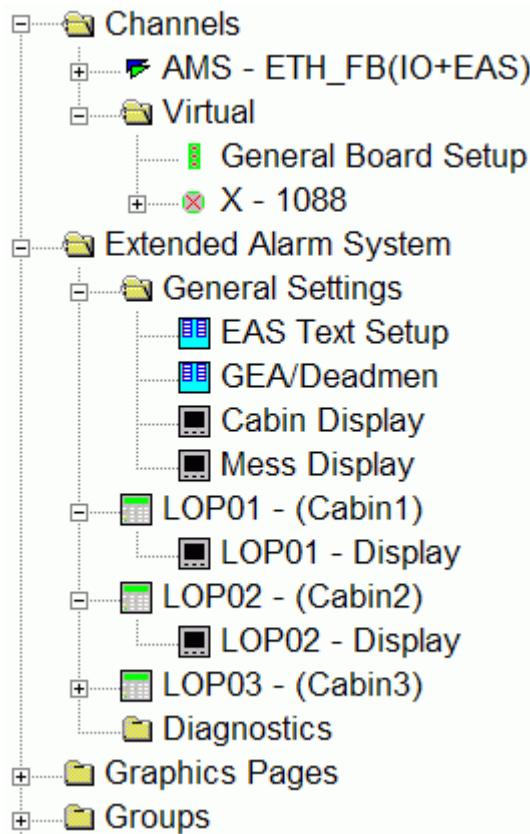
To remove indifference between 'degC' and 'DegC' see: [Change Engineering Units](#)

See Also:

[Channels, Analog Input](#)

Extension Alarm System

The Workstation has an interface with the Extension Alarm System. For a detailed description of the Extension Alarm System refer to the relevant product technical description. The interface with the Local Operator Panel(s) is achieved via the EAS. The following picture shows the tree area:



Adding a LOP (Local Operator Panel):

Select the 'Extension Alarm System' folder in the tree and click with the right pointing device key or press the context menu key on the keyboard. Select 'Insert' from the context menu. The system will ask to select the type of panel and the number (Panel type including number should be unique), a new LOP Panel will be created.

Deleting a LOP (Local Operator Panel):

Select the specific LOP Panel which should be deleted and press the delete key on the keyboard.

The maximum number of panels on the Extension Alarm System Fieldbus is defined as follows:

- Up to 32 Local Operator Panels

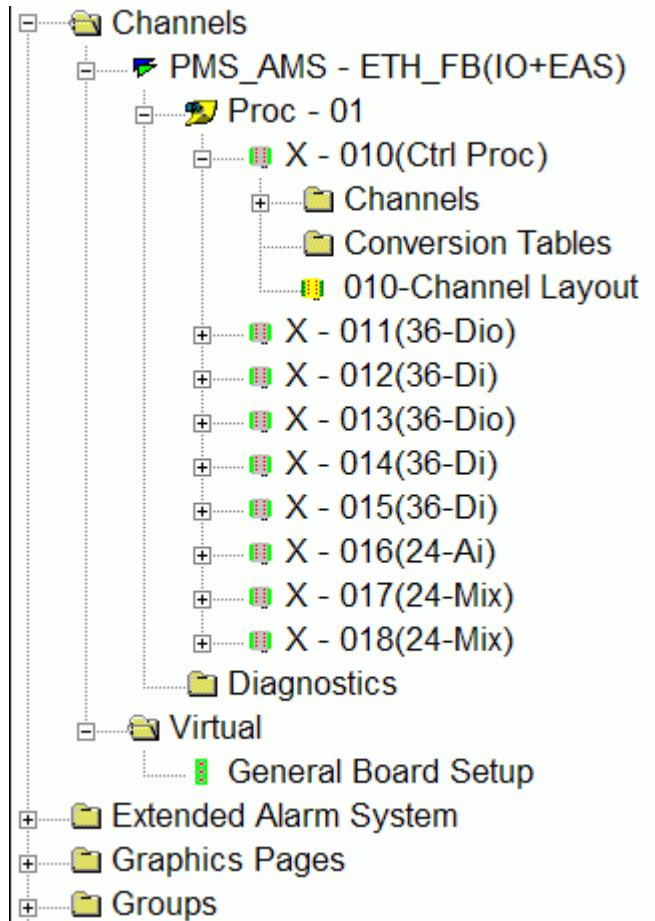
A Local Operator Panel can be used / configured as part of the system. If the Local Operator Panel is used / configured as one of the following panels it is counted as a panel.

A LOP panel can be defined as a:

- Cabin Room Display
- Mess Room Display
- Group Panel Display
- Alarm Display

Channel Layout

After selecting 'Channels', 'Ethernet Fieldbus', Processor and Board



A sheet is displayed where mostly used channels items could be adapted. Like Description, Tagname, Type, Source, Eng. Unit Type, High / Low Limits, Report and Alarm Delay.

For a more extensive field description see [Channels](#)

Shortcuts

Icon:

General Settings - Ethernet Fieldbus and Remote Data (Item Channels/Remote Data)

After selecting 'Channels' and clicking at the right mouse button a pop-menu is coming up, which allows the user to insert a new ethernet fieldbus.

The screenshot shows a software interface with a tree view of channels and a configuration dialog. The tree view includes:

- Channels
 - AMS - ETH_FB(IO+EAS)
 - Diagnostics
 - Proc - 01
 - X - 010(Ctrl Proc)
 - X - 011(36-Dio)
 - X - 012(36-Di)
 - Virtual

Below the tree view are several icons: Extended Alarm System, Graphics Pages, and Groups.

The configuration dialog has the following tabs: General Settings, Processor Position Table, Communication Settings, General Board Settings, and another tab that is partially visible.

General Settings tab fields:

 - Name: PMS_AMS Switch Link On
 - Filename: Eth_Fieldbus.dll
 - Link device: Field Bus + Extension Alarm System
 - Comment:
Name of Plugin :FB_ETH_FIELDBUS

There are three types:

1. I/O ([Input/Output](#))
2. EAS ([Extension Alarm System](#))
3. [Remote Data](#)

All types has following fields:

Name Name of the plugin in a text string representation

Switch Link On/Off An explicit option to establish an connection

Use On Backup This relates to the plugins which are running on the server. For monitoring the comports. Especially for Nmea-In dlls.

If a system is running on main server, and this item is checked.

On backup server, a Comport cable becomes disconnected, a diagnostic can be generated.

Also the system can switch if the number of good connections on the 'inactive' server is more than the active server.

Filename Name of the remote data (=DLL Name) which contains information about the plugin like protocol information

Link device: It's type could be I/O (channels) or EAS (LOPs) or Remote Data

Comment Free space to make to personal notes

Shortcuts

Icon: 

Place: Channels\ and Remote Data\

Extension Alarm System

An ethernet fieldbus which exists of LOPS -and LEDS Panels.

Input/Output

A ethernet fieldbus type which exists of boards, channels, 1131 control programs and conversion tables. There is only one this type allowed.

1. 2, 3, 4 command (File menu)

Use the numbers and filenames listed at the bottom of the File menu to open the last four documents you closed. Choose the number that corresponds with the document you want to open.

Close command (File menu)

Use this command to close all windows containing the active document. PAL suggests that you save changes to your document before you close it. If you close a document without saving, you lose all changes made since the last time you saved it. Before closing an untitled document, PAL displays the [Save As dialog box](#) and suggests that you name and save the document.

You can also close a document by using the Close icon on the document's window, as shown below:



Exit command (File menu)

Use this command to end your PAL session. You can also use the Close command on the application Control menu. PAL prompts you to save documents with unsaved changes.

Shortcuts

Mouse: Double-click the application's Control menu button.



Keys: ALT+F4

File menu commands

The File menu offers the following commands:

- New Creates a new document.
- Open Opens an existing document.
- Close Closes an opened document.
- Save Saves an opened document using the same file name.
- Print Prints a document.
- Print Preview Displays the document on the screen as it would appear printed.
- Print Setup Selects a printer and printer connection.
- Exit Exits PAL.

New command (File menu)

Use this command to create a new document in PAL.

You can open an existing document with the [Open command](#).

Shortcuts



Toolbar:

Keys: CTRL+N

Open command (File menu)

Use this command to open an existing database which to be connected to the PAL

Shortcuts



Toolbar:

Keys: CTRL+O

Page Setup command (File menu)

<< Write application-specific help here. >>

Print command (File menu)

Use this command to print a document. This command presents a [Print dialog box](#), where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.

Shortcuts

Toolbar: 

Keys: CTRL+P

Print Preview command (File menu)

Use this command to display the active document as it would appear when printed. When you choose this command, the main window will be replaced with a print preview window in which one or two pages will be displayed in their printed format. The [print preview toolbar](#) offers you options to view either one or two pages at a time; move back and forth through the document; zoom in and out of pages; and initiate a print job.

Print Setup command (File menu)

Use this command to select a printer and a printer connection. This command presents a [Print Setup dialog box](#), where you specify the printer and its connection.

Save command (File menu)

Use this command to save the active document to its current name and directory. When you save a document for the first time, PAL displays the [Save As dialog box](#) so you can name your document.

Shortcuts

Toolbar: 

Keys: CTRL+S

File Save As dialog box

The following options allow you to specify the name and location of the file you're about to save:

File Name

Type a new filename to save a document with a different name. PAL adds the extension you specify in the Save File As Type box.

Drives

Select the drive in which you want to store the document.

Directories

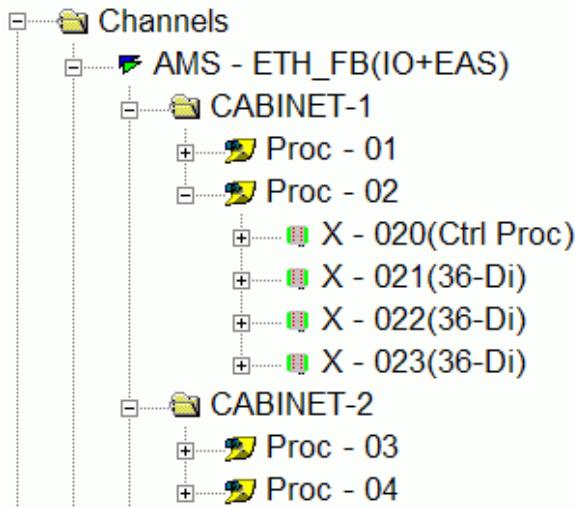
Select the directory in which you want to store the document.

Network...

Choose this button to connect to a network location, assigning it a new drive letter.

General I/O-Module Setup

Location of these settings is on the tree-item "AMS - ETH_FB(IO+EAS)" at 4th tab-page, see the following image of the tree area:



General Setup Input Channels:

General Settings | Processor Position Table | Communication Settings | General I/O Module Setup | PAL1131 Data Between XPs

General Setup Input Channels

Delay before return to 'NORMAL' of digital inputs:	<input type="text" value="0.0"/>
Alarm on Sensor/Wire Failures:	<input type="button" value="Yes"/>
Handle analog value on Sensor Failure:	<input type="button" value="freeze last valid; display '----'"/>
Two Wire PTD:	<input type="button" value="No"/>
System Common Mode Rejection (Hz):	<input type="button" value="50"/>
With Sensor Failure take into account it is detected on low or high range:	<input type="button" value="Yes"/>

General Setup XP / TFT

Returns to loader when no resistance detected:	<input type="button" value="Yes"/>
<input type="button" value="Set Copy Protection Code"/>	

Delay before return to 'Normal' of digital inputs:

Delay time used when a Digital channel status becomes "Normal" after an "Alarm" is solved.

Delay to Normal for all digital input channels of this link.

Range of 0-99 sec.

Alarm on Sensor/Wire Failures (YES/NO), default YES:

Flag if Sensor Failure has to be handled as an alarm

Handle analog value on Sensor Failure:

Channel Update Flag in case of sensor failure.

- freeze last valid; display '----'
- freeze last valid; display last valid
- update, display update
- update, display '----'

Two Wire PTD:

Flag if we need to correct PTD values.

Only for Channels - Analog Input

System Common Mode Rejection (Hz):

Value a of 50 Hz or 60 Hz.

Used for calibration of I/O-Module of type 24-Mix or 24-AI.

This setting is set in the I/O-Modules for accurate measurements.

with Sensor Failure take into account it is detected on high or low range:

Value can be "True" or "False".

possibility to detect if Sensor Failure was detected on High or Low range

if "True" I/O Module returns max positive range or it returns max negative range.

General Setup XP/TFT:

Returns to loader when no resistance is detected:

Value can be "True" or "False".

Set Copy Protection Code

Special function for customers who wants to assign XP/TFT firmware with protection code.

When you click on this button, public key and corresponding password must be given.

Furthermore this code must be stored in the BIOS Settings, which can be achieved with FirmwareTool.

Pulse Input, Frequency Counter (Item Plugins, FieldBus, Board, Channels)

For the fields which are in common see [Channels, Pulse Input](#).

Pulse Input used as Frequency Counter

A pulse input can be used as frequency counter (Sensor Type 1). In this case the hardware counter will count the pulses during the Scan Rate interval and process the accumulation at the end of Scan Rate interval.

Pulse / Scan:

- Enter a value between 1 and 3000 to indicate the number of pulses per Scan Rate (interval)

Scan Rate:

- Processing interval on which the counter value will be evaluated (processed)

Range:

- Range limit when during the Scan Rate the number of Pulses / Scan are counted.

Example:

We have flow meter which gives a frequency of 0-40 Hz for a flow of 0-500Liter.

In the above sample the value will be processed each 5 seconds (Scan Rate). If we count 150 pulses (which equals 30Hz)

$$\frac{150(\text{input})}{200(\text{Pulses/Scan})} \times 500(\text{range}) = 375\text{Liter}$$

within this interval the value of this channel will indicate .

General Engineer Alarm / Deadman Alarm Setup

For general information see also [Extension Alarm System](#).

The following screen gives you an overview of the alarm handling for General Engineers Alarm, Deadman Alarm and how to configure the Attended State of the ECR. The GEA is an alarm which will be activated if the (On Duty) engineer did not acknowledge the engine room alarm within a predefined time. A Deadman Alarm is initiated from a manned ECR. It occurs if the timer of the Patrol Alarm Unit (Timer Unit) has expired, or if the engineer in the ECR presses the 'GEA' button on the Patrol Alarm Unit.

The following parameter setup area determines the general EAS setup:

Cabin - Alarm Setup / General Engineering Alarm			
Function:	None	Tag Name:	*GEA*
Time-out for accept of E.R. Alarm before G.E.A.	180	Current Accept:	None
Current Time-Out (sec):	180	Description:	General Engineer Alarm
Cabin - Alarm Setup / Dead Man Alarm			
Function:	None	Tag Name:	Deadman
Accept key to signal - 'Engine Room Attended'	27	Current Accept:	None
Pre-warning (min):	27	Time-Out (min):	30
Description:	Dead Man Alarm		

General Engineer Alarm Setup:

Function:

This field can be set to the following values:

- None: Indicate that no condition will activate the General Engineer Alarm
- Unattended: The GEA will only be activated in case the Engine Room is unattended.
- Both: The GEA will be activated regardless if the Engine Room is attended or unattended (Default).

Tag Name:

This is the text you can enter to indicate in the 'TAG' field on the Local Operator Panel (s) and Operator Work Station(s) if a GEA is activated. Maximum number of characters 10. Remind you if you change the text and you ask for this entry in setup, it will indicate you the new string.

Time –Out for accept of ER ALARM before General Engineers Alarm (GEA):

This is the time between the activation of an engine room alarm and the pressing of the Acknowledge button in the ECR. Default value is 180 seconds. Valid entries are between 0 and 9999 seconds.

Current Accept:

This field can be set to the following values:

- NONE: No functionality assigned to the Acknowledgement of alarms on the I/O server(s) in the ECR.
- ACK: The Acknowledgement of alarms in the ECR will acknowledge the GEA.
- STOP HORN: The Stop Horn action in the ECR will acknowledge the GEA.

- BOTH: The Acknowledgement of alarms and/or Stop Horn action in the ECR will acknowledge the GEA (Default).

Description:

This is the text you can enter to indicate in the ‘Description’ field on the Local Operator Panel (s) and Operator Work Station(s) if a GEA is activated. Maximum number of characters 40. Remind you if you change the text and you ask for this entry in setup, it will indicate you the new string.

Dead Man Alarm Setup:

Tag Name:

This is the text you can enter to indicate in the ‘TAG’ field on the Local Operator Panel (s) and Operator Work Station(s) if a DEADM is activated. Maximum number of characters 10. Remind you if you change the text and you ask for this entry in setup, it will indicate you the new string.

Description:

This is the text you can enter to indicate in the ‘Description’ field on the Local Operator Panel (s) and Operator Work Station(s) if a DEADM is activated. Maximum number of characters 40. Remind you if you change the text and you ask for this entry in setup, it will indicate you the new string.

Accept key to signal ENGINE ROOM ATTENDED:

- NONE – The ‘ECR Attended’ state will not be activated by pressing either the Acknowledge button or the STOP HORN button in the ECR.
- ACK – By pressing the Acknowledge button in the ECR, the ‘ECR Attended’ state will be activated.
- STOP HORN – By pressing the STOP HORN button in the ECR, the ‘ECR Attended’ state will be activated.
- BOTH – By pressing either the STOP HORN or the Acknowledge button in the ECR, the ‘ECR Attended’ state will be activated (Default).

Groups

After selecting 'Groups' and 1 – GroupName xx

Group:	1	Description:	Test Group Description
Periodic Log Start/Stop Channel:	1189		
		Display group:	<input checked="" type="checkbox"/>

Description text for describe or name of this group

Display group to show this group into a Client, default checked, Very rare if not checked which could be done for if it's only used for a Extended Alarm System(EAS)

There are several items to configure:

1. [Logging](#)
2. [Trending](#)
3. [Add/Delete Channels](#)

Periodic Log Start/Stop Channel Digital Channel to re-start Periodic Log Timer

Example of Periodic Log (see Printer Configuration)

Channel 01190 controls the printing (yes/no)

"Periodic Log Start/Stop Channel" 01189 controls the periodic timer

Periodic Log	<input checked="" type="checkbox"/>		
Add/Delete Groups			
Type:	Group	Sort	Add
Group:			Delete
1 - Groupname			
Periodic Log			
First log time(hours:minutes):	01:00		
Log interval time(hours:minutes):	00:10		
Channel for disable/enable periodic log:	01190		

See also:

[Groups – General Settings](#)

Shortcuts

Groups - General Settings

General setup of groups	
Maximum number of MB for all logging files:	10000
When maximum MB is reached, do not stop logging but remove oldest files	<input checked="" type="checkbox"/>
Report Setup of Logging	
Number Of Logging Groups:	2
Number Of Channels:	138
Maximum usage of memory per day (MB):	0.3
Maximum usage of disk per day (MB):	52.7
Maximum usage of disk cyclic storage (MB):	1054.9

Maximum number of MB for all logging files indicates the size on disk what could be used for logging

When maximum MB is reached, do not stop logging but remove oldest files indicates how the system reacts when the maximum number of MB is reached.

Report Setup of Logging

Shows information of all groups regarding logging configuration. The following parameters are shown:

- Number Of Logging Groups
- Number Of Channels
- Maximum usage of memory per day (MB)
- Maximum usage of disk per day (MB)
- Maximum usage of disk cyclic storage (MB)

Example: it shows 2 groups with total of 138 channels, with a sample rate of 2 sec.

Cyclic Storage is checked and Log History Days is 20 days.

Setup of Server Logging	
Enable Server Logging	<input checked="" type="checkbox"/>
Maximum number of GB for all server logging files:	4.100
Maximum number of days to keep server logging files:	7

Enable Server Logging create a replay file with all channel data, a typical file has size around 20 MB and contains one 1 hour of data

Maximum number of GB for all server logging files: storage size which is available; In some projects external disks are used.

Maximum number of days to keep server logging files: number of days files are kept; Make this value not too high example:(20MB * 24(hr) * 7(days) = 3.280 GIG)

See also:

[Groups](#)

Context Help command



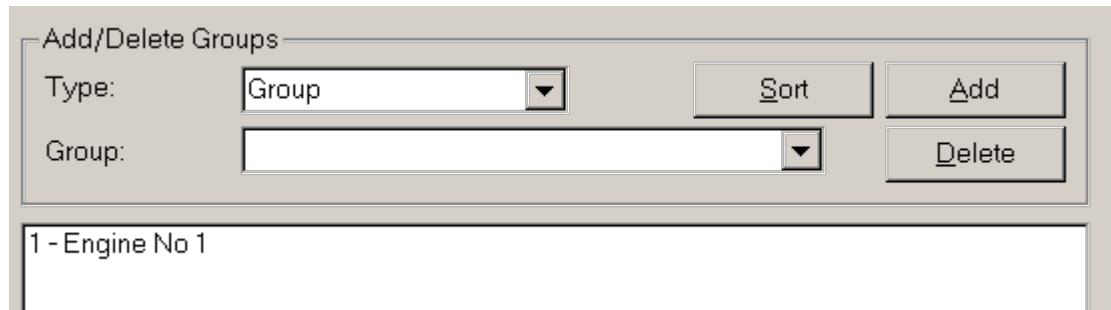
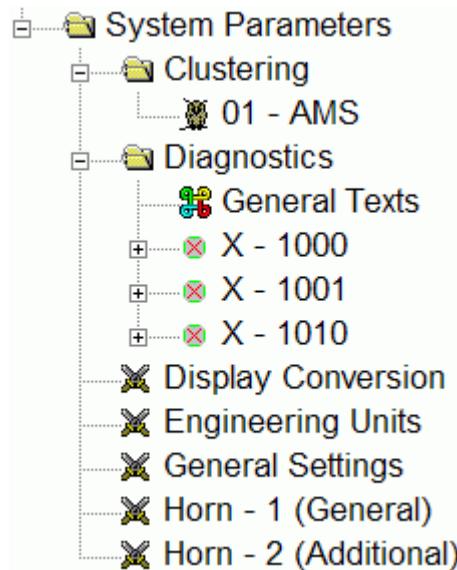
Use the Context Help command to obtain help on some portion of PAL. When you choose the Toolbar's Context Help button, the mouse pointer will change to an arrow and question mark. Then click somewhere in the PAL window, such as another Toolbar button. The Help topic will be shown for the item you clicked.

Shortcut

Keys: SHIFT+F1

Horns

After selecting 'System Parameters' and 'Horn 1 (General)' or 'Horn 2 (Additional)'



Use EAS (cabin/mess) Groups which are setuped at cabin or mess panel and also setuped at here, If on one place (cabin setup or horn setup) a group like that is removed, it's automatically removed from the other place too, (if checkbox is checked)

Add/Sort/Delete Buttons to insert/delete groups which needed to be signaled horn outputs

Hourcounters

Hourcounter has the following fields:

Channel

- the channel number, can't be changed

TagName

- Enter any tag up to 10 characters. Tags must be unique.

Description

- Enter any descriptive text up to 40 characters

Alt. Description

- Enter any descriptive text up to 40 characters for support a secondary language, if you like to use another language you should fill in here your description, especially when your language is not based on Roman alfabeth, so when using Chinese, Korean or Japanese Texts, please use this field

Type

- Type of the channel, Analog Input (fixed)

Source:

Choose a selection from the combobox to set-up this channel (see below),

- Not Installed
- Counter

Choose 'Not Installed' to set this channel as 'Not Used', the value of this channel is undefined.

Report:

- STATUS

The Report Option 'STATUS' signifies that the signal is not activating an alarm message on the 'ALARM PAGE' and is not activating the HORN output. But it will activate the posting of a status message line on the printer if the status changes (If Print Status option is set to 'YES').

0 Note: If the Sensor Failure is used and the Sensor Failure is activated, it will create an alarm message on the 'ALARM PAGE' and it will post an alarm message line on the printer.

- ALARM NO HORN

The Report Option 'ALARM NO HORN' signifies that the signal is activating an alarm message on the 'ALARM PAGE' and is not activating the HORN output.

- ALARM

The Report Option 'ALARM NO HORN' signifies that the signal is activating an alarm message on the 'ALARM PAGE' and is activating the HORN output.

Groups:

Each alarm can activate up to 8 Group Alarms. Which will activate an LED indicator on a Group Panel and it will activate the Horn Output of the corresponding Group Panel. In the system we have a maximum of 256 Groups:

Print Status:

The Print Status option is only visible (and can be set-up) on certain Report options. With Report Options: 'ALARM' and 'ALARM NO HORN' the Print Status option is not visible.

Note: In that case alarm message lines are always sent to the printer.

The following selections are possible for status information:

- With Report Option 'STATUS', you can select:
 - Select 'TO ACTIVE ONLY' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' is detected for this channel.
 - Select 'BOTH' for posting a status message line on the printer each time a status change from 'OFF' to 'ON' or 'ON' to 'OFF' is detected for this channel.
 - Select 'OFF' to disable printing of status changes for this channel.

Status Texts:

- Select from 16 groups of texts shown in the window, to represent the channel's status. (Texts themselves can be modified from another menu).

Start Channel:

- Enter a channel number, which start hourcounter counting

Stop Channel:

- Enter a channel number, which stop hourcounter counting

On Status:

- Dig/Both, information only

Display Format:

- HH, HH:MM, HH:MM:SS, hours, minutes, seconds

Initial Value:

- Button, a new dialog is shown, which ables to reset hourcounter value, see also [HourCounters – Intial Value Dialog](#)

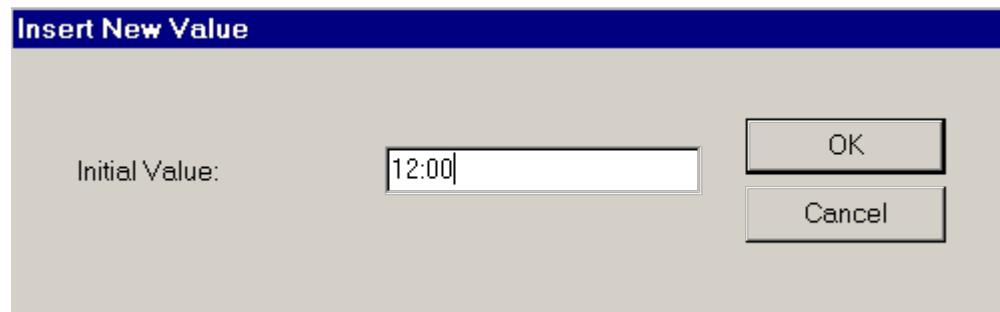
Hourcounters – General Settings

Filepath and filename of the hourcounters file is set.

See Also

[HourCounters](#)

Hourcounters – Initial Value Dialog



The hourcounters file is set with a new value.

See Also

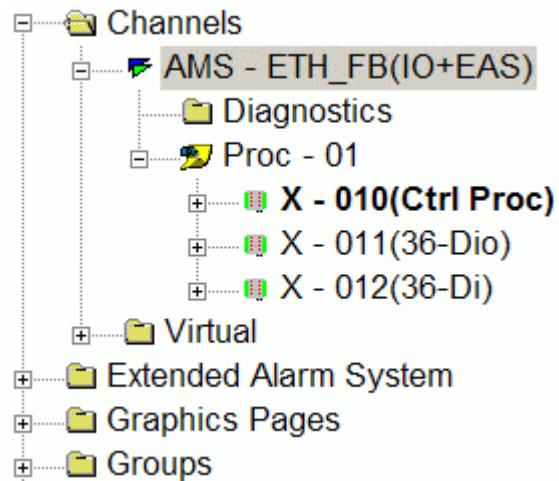
[HourCounters](#)

How does Show Changes work

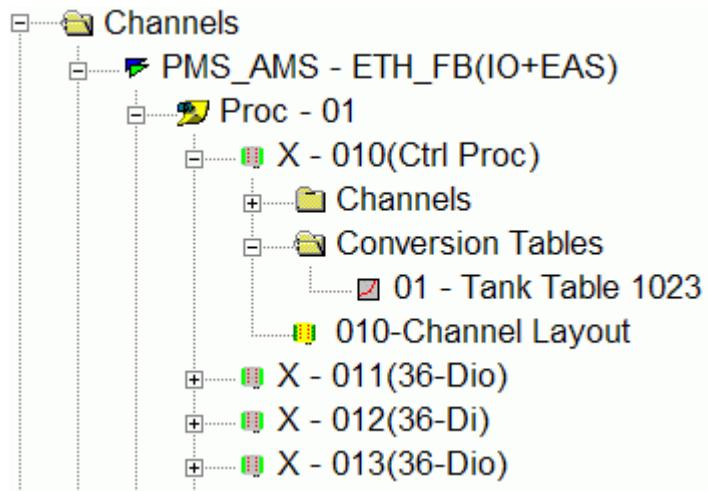
Everytime a change is made will this be written into the file “showchang.txt”. By selecting this command the file will be opened into the application.

How to Delete a Board

To do that go to the [Processor Position Table](#). Which can be found at:



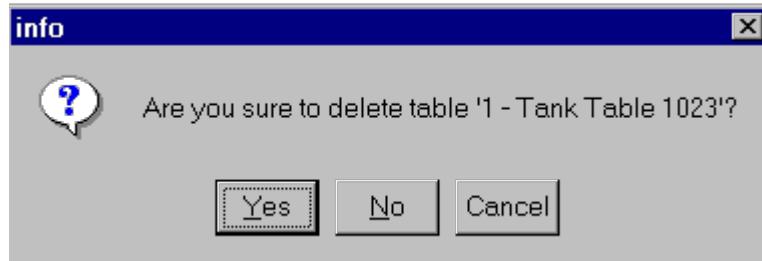
How to Delete a Conversion Table



Deleting a table:

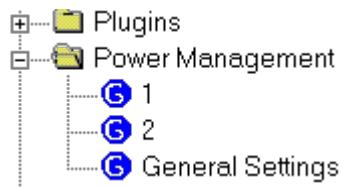
Select the specific table in the tree area that should be deleted and press the delete key on the keyboard.

The following message is coming up:



Choose for "Yes" if you are sure that you want to delete the conversion table.

How to Delete a Generator



Deleting a generator:

Select the specific generator in the tree area that should be deleted and press the delete key on the keyboard.

See also:

[PMS – Generator](#)

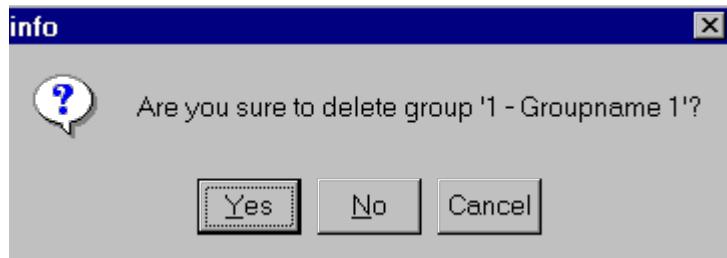
How to Delete a Group



Deleting a group:

Select the specific group in the tree area that should be deleted and press the delete key on the keyboard.

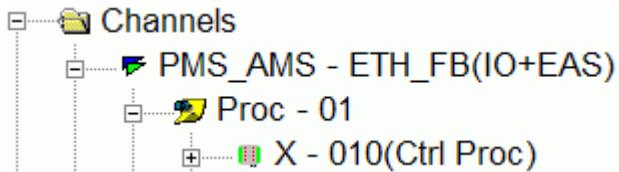
The following message is coming up:



Choose for "Yes" if you are *absolute* sure that you want to delete the group.

Note: *all references referring to group of this group are also deleted!*

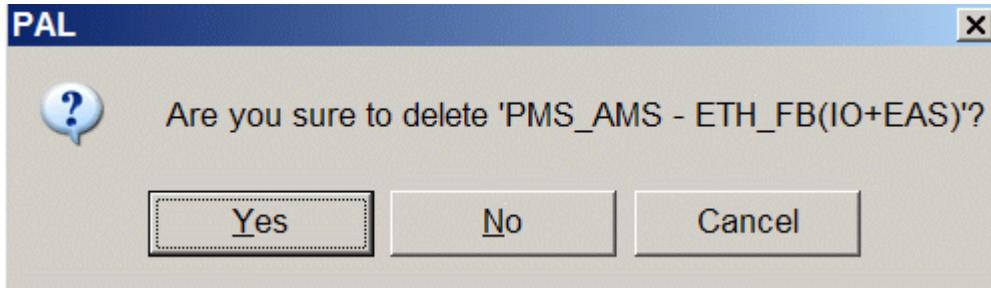
How to Delete a the Ethernet Fieldbus



Deleting a the Ethernet Fieldbus:

Select the Ethernet Fieldbus which should be deleted and press the delete key on the keyboard.

The following message is coming up:



Choose for "Yes" if you are absolute sure that you want to delete the Ethernet Fieldbus.

Be aware that everything underlying (like the boards with the channels, conversion tables information) will be lost!

See Also: [General Ethernet Fieldbus and Remote Data](#)

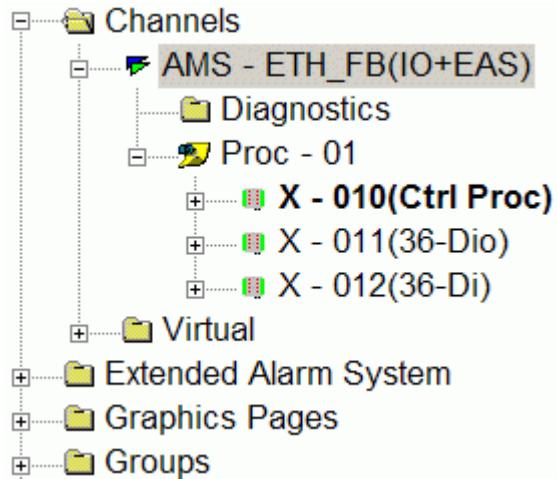
How to get the Current Version

The version information is kept at the about box.

See: [About](#)

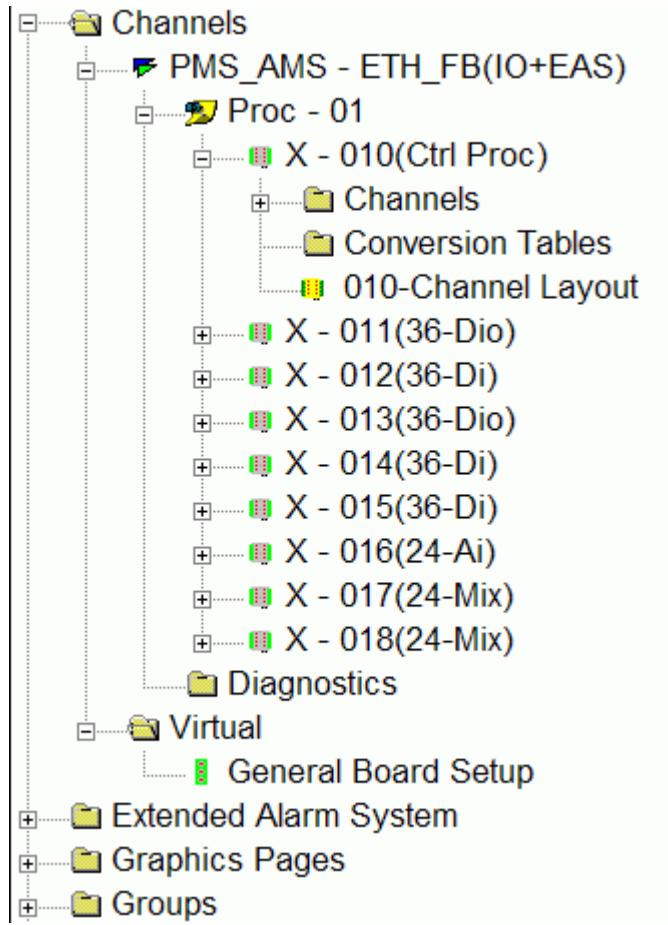
How to Insert a Board

To do that go to the [Processor Position Table](#). Which can be found at:



How to Insert a Conversion Table

Expanding the tree area on the specific module will give you for example the following image:

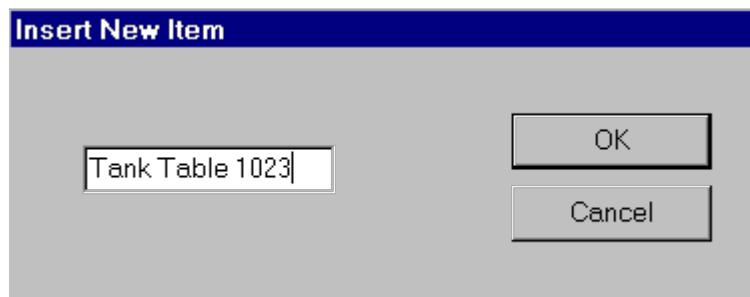


For each i/o module you can setup channels (hardware or virtual), conversion tables.

Adding a conversion table:

Select in the related Proc folder, the I/O Module and the Conversion Table folder in the tree and click it with the right pointing device key or press the context menu key on the keyboard.

Select 'Insert' from the context menu and the following dialog will appear:



Name:

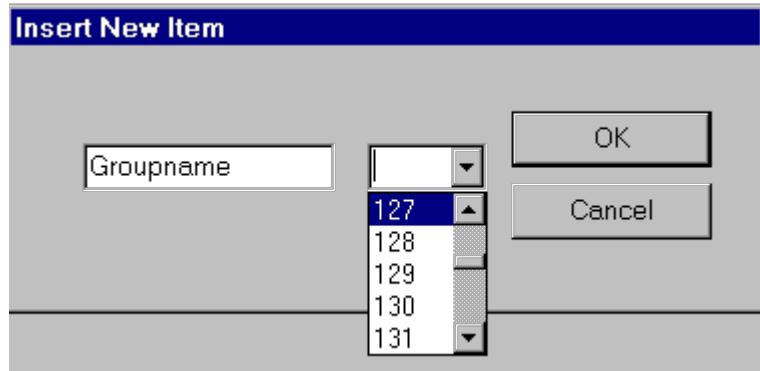
Enter the user definable field to describe the username for this table. This field is used for documentary reason only. This name will be used in the tree area.

How to Insert a Group

- +--- Graphics Pages
- +--- Groups
- +--- Job and Language
- +--- Passwords

Adding a group:

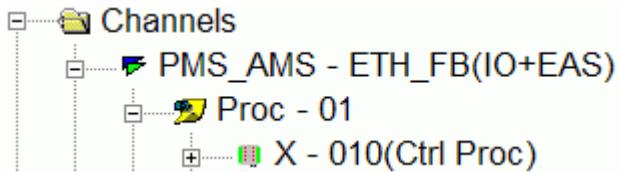
Select the Groups folder in the tree and click with the right pointing device key or press the context menu key on the keyboard. Select 'Insert' from the context menu and the following dialog will appear:



You will be asked for the description (max 30 characters) and the number for this group.

After a correct input the group will be created.

How to Insert a Ethernet Fieldbus



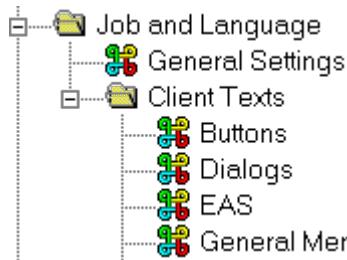
Adding the ethernet fieldbus:

Select the Channels folder in the tree and click with the right pointing device key or press the context menu key on the keyboard. Select 'Insert' from the context menu and the new Ethernet Fieldbus will be created. you will be asked for the definition of the name (max 50 characters) and the device(type) for this ethernet fieldbus.

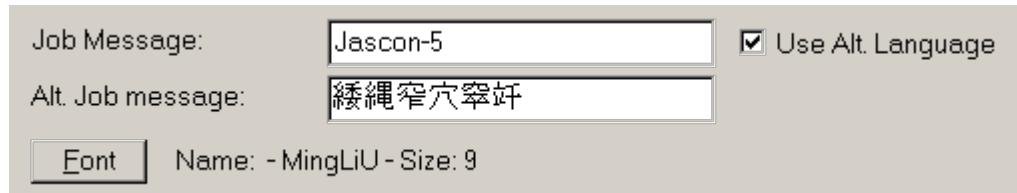
See Also: [General Ethernet Fieldbus and Remote Data](#)

How to use Another Language

Set-up of Language is performed from the 'Job and Language\General Settings' item in the Tree Area.



When choosing that item the following screen will be appearing:



Mark on the 'Use Alt. Language' to support alt. language.

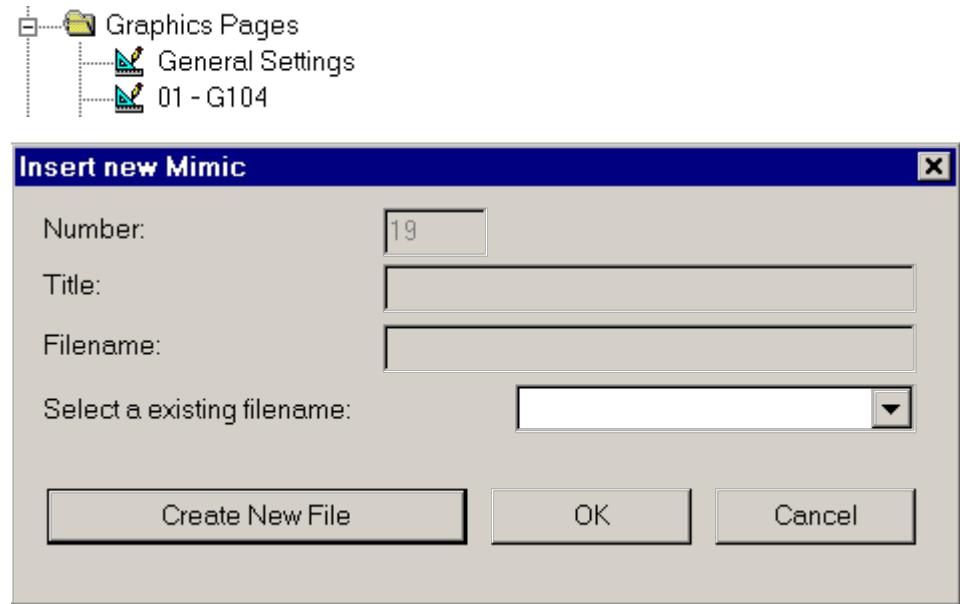
Example: How to get Russian on alarm printer or LOP:

- Go to Start (Windows), Settings, Control Panel, Regional Options, Tab General, check Cyrillic. You probably need 'Windows 2000 Professional CD' for installation of fonts.

- Activate Alternate Language (see above)
- Check 'Use Alt. Language' at printer/LOP configuration + select code page 866
- Translate all language specific texts, like Job & Language / Client Texts / Printer Texts + EAS + Header Texts

Insert a new Mimic

After selecting 'Graphic Pages' and press right mouse button, a insert menu is displayed



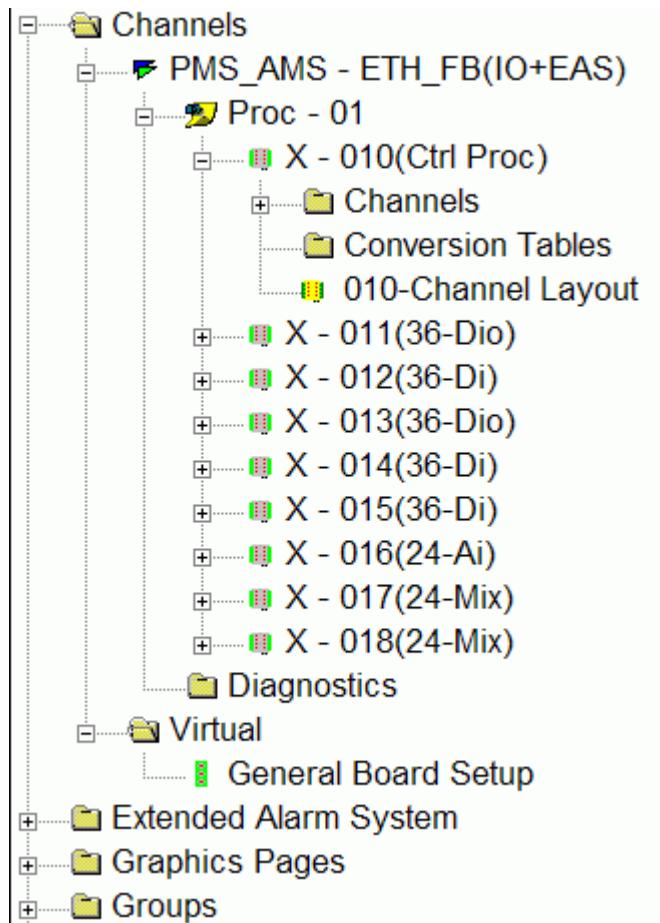
select a existing filename possibility to select a mimic file who was already there

Shortcuts

Icon: 

Channel Layout

After selecting 'Channels', 'Ethernet Fieldbus', Processor and Board



A sheet is displayed where mostly used channels items could be adapted. Like Description, Tagname, Type, Source, Eng. Unit Type, High / Low Limits, Report and Alarm Delay.

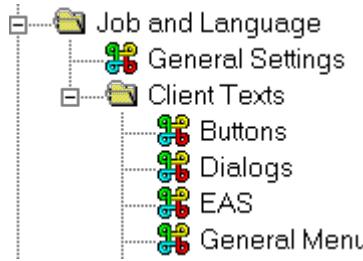
For a more extensive field description see [Channels](#)

Shortcuts

Icon:

Job and Language

After selecting 'Job and Language' and 'Client Texts' and one its items



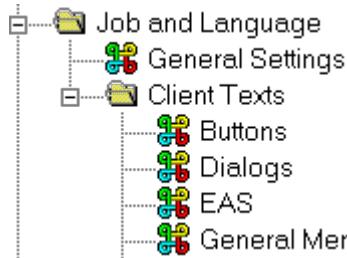
A table where language texts, English and User Defined, are shown. User Defined texts can be adapted. These texts are shown inside a Client, when the Client is setup to used Alternative Language.

Shortcuts

Icon:

Job and Language – General Settings

After selecting ‘Job and Language’ and ‘General Settings’



Job Message: Use Alt. Language
Alt. Job message:
Font Name: - MingLiU - Size: 9

This screenshot shows the 'General Settings' configuration window. It includes fields for 'Job Message' (containing 'Jascon-5') and 'Alt. Job message' (containing '綾繩窄穴窄奸'). A checkbox labeled 'Use Alt. Language' is checked. Below these fields is a 'Font' button and a font selection field showing '- MingLiU - Size: 9'. The entire window has a light gray background.

Job Message title display inside Client or on LOP, up to 18 characters long

Use Alt. Language if you like to use besides English another language, check this box, now new fields are available, like Alt. Job Message and Alt. Description at a single Group or Channel configuration.

Font button to choose a font which alt. language texts will use. You need to choose a font which your preferred language supports!

Shortcuts

Icon:

Lamp Test Example

<not implemented yet>

LED Setup

For general information see also [Extension Alarm System](#).

Once the LED Panel is inserted the setup area will give you the following settings:

LED Panel Number:	<input type="text" value="1"/>
Panel type:	<input type="text" value="Cabin1"/> <input type="button" value="▼"/>

LED Panel Number:

Number of the LOP not changeable from this location.

Panel type:

The following panel types can be selected:

- Cabin x: This selection will assign the pre-defined functionality of the xth cabin to this LED. Refer to [EAS Text Setup](#) to see which engineer is related to what cabin panel.
- Mess: This selection will assign the pre-defined functionality of a messroom panel to this LED.
- Group: This selection will assign the functionality of a group alarm panel to this LED. Assignment of the EAS indicator and horn activation can be selected freely. For set up of indicator(s) and horn functionality refer to paragraph page.

Note: If the LED Panel is of the type with two LEDs, the first two indicator lines will be used of the table. If the LED Panel is of the type with eight LEDs, the first eight indicator lines will be used of the table.

Groups, Logging

Logging					
Logging:	<input checked="" type="checkbox"/>	Event Logging:	<input type="checkbox"/>	Allow Logging Control:	<input type="checkbox"/>
Log OnChange:		<input type="checkbox"/>			
Sample Rate in (s):	5		Disk storage rate (s):	1500	
Start/Stop Channel:	0		Log history (days):	100	
Maximum usage of disk/memory per day (KB):	0			0	0

Logging Possibility to turn on logging for this group

Allow Logging Control Is the user allow to turn off logging for this group

Cycle Storage After x days (log history), the old files with a file date, back in time (x days) will be removed automatically

Event Logging Only for a channel which goes into/out of Alarm, logging lines are saved to disk

Log OnChange Only when one of the channel values are changed, logging lines are saved to disk

Sample Rate Time in seconds (default 5)*

Disk storage rate After how many seconds a log file will be updated to disk

Start/Stop Channel Channel which its value could start/stop logging process

Log History (days) Number of days where log files are kept on disk (used at cyclic storage)

Remark: If cycle storage is not checked then after this number of days the logging will be stopped automatically.

When 'Allow Logging Control' is checked, 'Start/Stop Channel' wil be hidden and will not be used.

In this case start and stopping of logging will be done via CamClient – Group Overview Page by pressing "On/Off" button.

When 'Allow Logging Control' is not checked, 'Start/Stop Channel' wil be shown and will be used.

CamClient – Group Overview Page "On/Off" button will be hidden.

* Normally a sample rate of 5 sec is minimum,
a sample rate of 0.25 sec is minimum. Accepted values are 3, 2, 1, 0.5 or 0.25
This is also refered as "**fast logging**".

Limitations Workstation group Logging

The CSV group logging it is possible to use a group with 1000 channels and 4x per second logging
and simultaneously use a group with 2000 channels and 1x per second logging.

Warning: while configuring channel list with more than 50,000 channels logging will slow down the complete system,

eventually it will be stopped. There is no protection whatever could be setuped!

It is also possible to log everything, use Server Logging for that. See: [Groups – General Settings](#)

Maximum usage of disk/memory per day (KB) gives a indication about the maximum ever to be used KB if logging for group is on.

Example:

One day (60 seconds * 60 minutes * 24 hours) has 86400 seconds.

86400 / 5 = 17280 (=times taking a sample for all these channels in this group)

(12 channel values * 8 bytes) + 21 bytes (date + time) = 117

17280*117 = 2021760 bytes

90 bytes (header info per channel) * 12 channels + 152 bytes (header general) = 1232

results in total of (2021760+1232) / 1000 = 2022.9 (disk)

(117 * 300 (=nr of samples to disk)) / 1000 = 35.5 (memory)

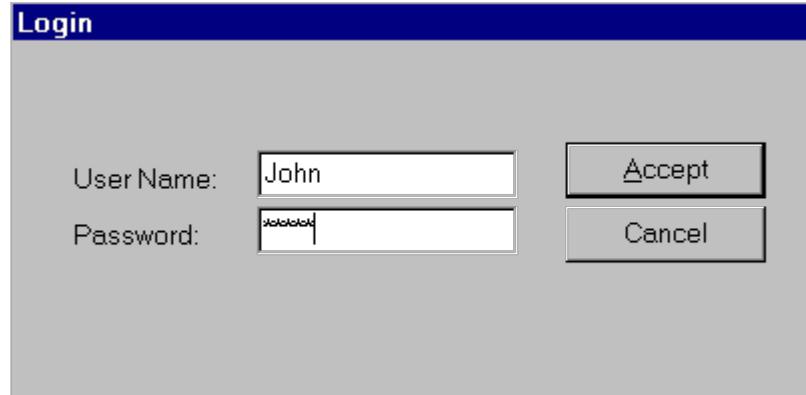
See also:

[Groups](#)

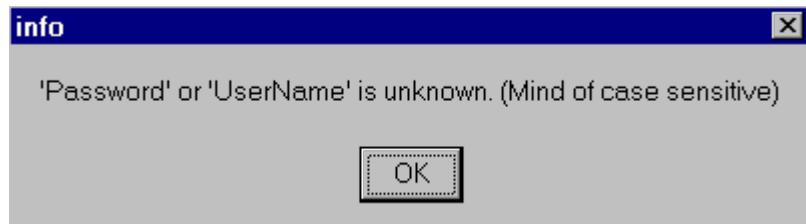
Login

Several set-up levels are available each with their own password. Operator levels are numbered from 1 onwards and the corresponding password always starts with the level number. The engineer set-up level is level 0;. By entering the appropriate username and password, the set-up is entered with the corresponding level.

When PAL is started the following appears on the screen:



Example below indicates the reaction of the system when a wrong password is supplied.



The default username is 'engineer' and the default password is 'ok' for the engineer level and just the level number only for all operator levels ('1' to '3').

In this help file the engineer level (level '0') is described.

When the correct password is entered (default 'ok'). Operator levels allow restricted set-up.

LOP Setup

For general information see also [Extension Alarm System](#).

Once the LOP is inserted the setup area will give you the following settings:

Local Operator Panel Number:	1	Panel type:	Cabin1
IP Address:	192 . 168 . 1 . 201	Port:	502
LOP Menu Item - 1:	Alarm Page	LOP Menu Item - 5:	Dimming Page
LOP Menu Item - 2:	EAS Page	LOP Menu Item - 6:	Along Side Page
LOP Menu Item - 3:	Group Page		
LOP Menu Item - 4:	Channel Page		

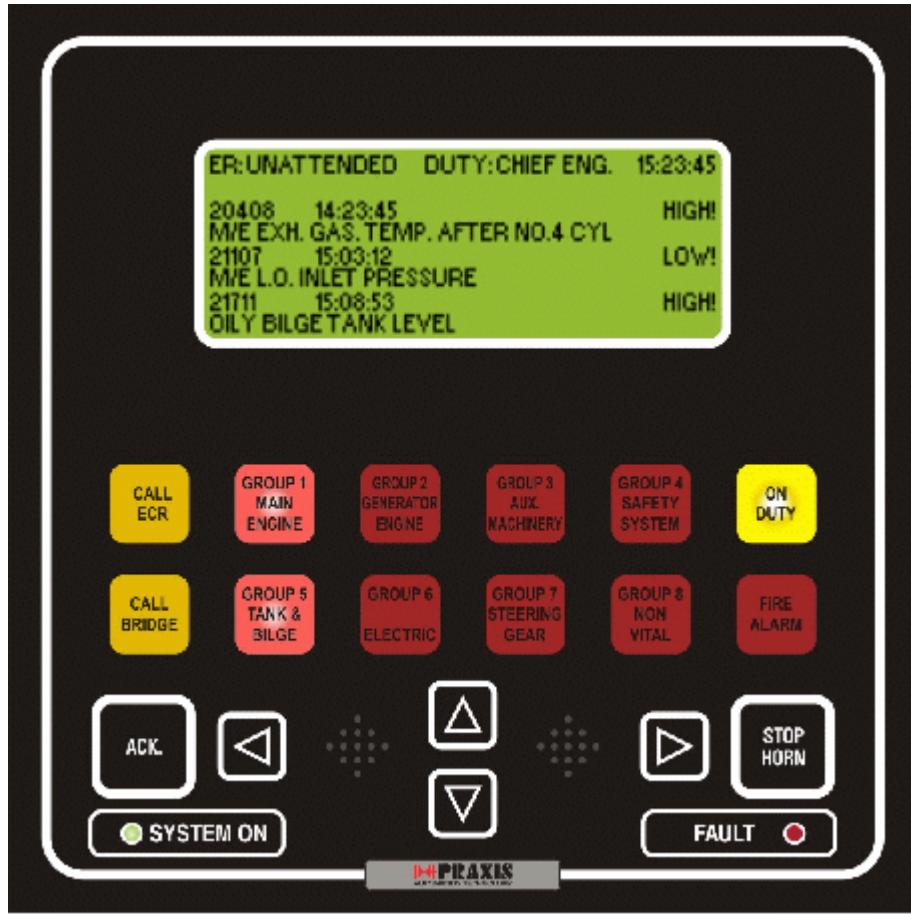
Local Operator Panel Number:

Number of the LOP not changeable from this location.

Panel type:

The following panel types can be selected:

- Cabin x This selection will assign the pre-defined functionality of the xth cabin to this LOP. Refer to [EAS Text Setup](#) to see which engineer is related to what cabin panel.
- Mess This selection will assign the pre-defined functionality of a messroom panel to this LOP.
- Group This selection will assign the functionality of a group alarm panel to this LOP. Assignment of the EAS indicator and horn activation can be selected freely. For set up of indicator(s) and horn functionality refer to paragraph page.
- Alarm Display This selection will assign the functionality of an alarm display panel to this LOP. There is no EAS indicator setup available for this type of panel. But only Alarm Display is able to acknowledge channels statuses.



LOP menu item setup:

The following menu functions can be assigned:

- None No functionality assigned.
- Alarm Page choosing this menu-item will display the first lines of the Alarm Page.
- Channel Page choosing this menu-item will select the Channel Page. You can now add channels to this page by selecting the channel and pressing 'Enter'.
- Group Page choosing this menu-item will display the Group Page selection display. You can now enter a group number and selecting this Group Page by pressing 'Enter'.
- EAS Page choosing this menu-item will display the first four lines of the EAS page.
- Dimming Page choosing this menu-item will display an Dimming Page.

Dimming LCD / Buttons:	<input type="text" value="0"/>	/	<input type="text" value="0"/>	Dimming Backlight:	<input type="text" value="80"/>
Use Alt. Language on LOP	<input type="checkbox"/>				
Default Page on LOP:	<input type="button" value="Alarm Page"/> ▾				
External Relay:	<input type="button" value="None"/> ▾				

Dimming LCD / Buttons and BackLight:

With this values the dimming of display is set.

Default Page on LOP:

With this selection you can determine the default page to be displayed on startup of the system. Possible selections are:

- None - No page will be displayed at startup.

Alarm Page - The Alarm Page will be displayed at system startup.

- Group Page - The Group Page will be displayed at system startup.
- EAS Page - The EAS indicator page will be displayed at startup.

External Relay:

When connection external horn (besides local horn) or external accept (besides local accept button) this function needs to be set. Options are "None" and "On Horn"

Current Accept: (only with Panel type - 'Alarm Display')

To acknowledge channels which have changing status from normal->alarm or visa versa.

Must horn be turned on: (only with Panel type - 'Alarm Display')

When accepting channels (see: Current Accept) local horn could be turn on or off, options are 'Yes' and 'No'.

Use Alt. Language on LOP:

For display other language texts on LOP. Independent of the rest of the system.

Code Page:

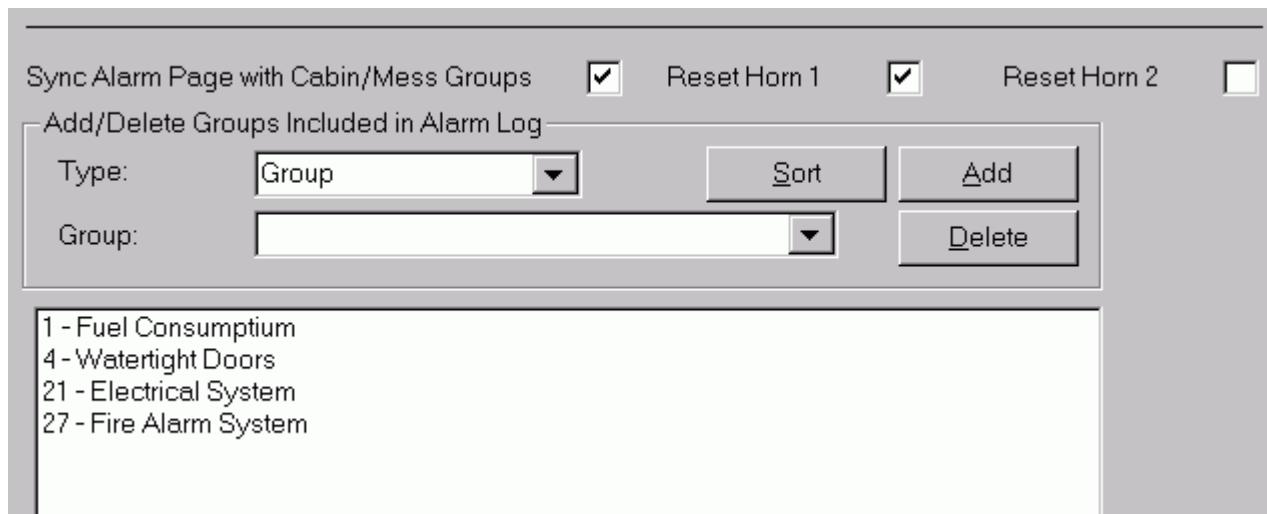
For display other language texts on LOP. Independent of the rest of the system.

For normal usage "0" - when having no alt. language texts

For Russian LOPS use "866 - Cyrillic (DOS)" (requires special hardware)

For Baltic use "775 - Baltic (DOS)"

For Nordic use "865 - Nordic (DOS)" (Sweden/Norway/Danmark)



Synch Alarm Page with Cabin and Mess Groups:

When turned on groups configured at [Cabin or Mess Display Layout](#) will automatically be updated at the [Horn Setup](#)

Reset Horn 1 or 2 (only with Panel type - 'Alarm Display')

When turned "on" System horn 1 or 2 is resetted too when pressing on Accept Button.
(see [Horn Setup](#))

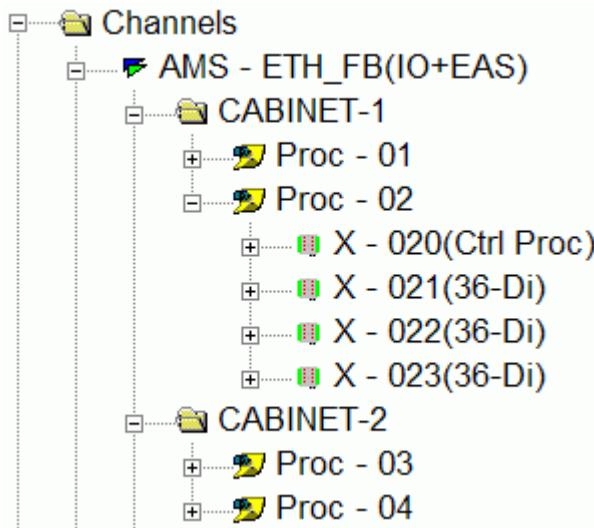
Add/Sort/Delete Buttons

Buttons to insert/delete/sort groups which needed to be display by this LOP.
This concerns "Alarm Page".

Miscellaneous Table

This view will be automatically added or deleted by changing the [Processor Position Table](#).

Each type I/O processor has a table for the connection of local system functions **to local I/O channels**, the location of this table in the tree area is second tabpage of processor item, see the following image of the tree area:



By selecting one of the I/O Processors the setup area will show the system functions that can be connected to local I/O channels:

General Settings		Miscellaneous Table	Board Diagnostics
Processor Number:	33		
Acknowledge Input:	33026		
Stop Horn Input:	0		
Lamp Test Input:	0		
System On Output:	0		
Horn Output follows Channel:	33013		
System Fail:	33015		
1131 Restart:	0		
1131 Restart Exit LCD Parameter Menu:	0		
Enter LCD Parameter Menu:	0		
Exit LCD Parameter Menu:	0		
Buzzer follows Channel:	33012		
PAL 1131 Error Code:	0		
PAL-1131 Error Location Address:	0		

The local system functions can be defined as follows:

Processor Position Number:

This field is for information only and cannot be changed.

Acknowledge Input:

The configured digital input channel connected to this function will acknowledge the active alarms on this I/O

Processor.

Sometimes it is preferable to get unaccepted alarms on a panel. To accept these alarms on same that panel by pressing on a button on that panel gives a reason to this kind of functionality.

Stop Horn Input:

The configured digital input channel connected to this function will de-activate the local Horn Output of this I/O Processor.

Lamp Test Input:

The configured digital input channel connected to this function will activate all alarm indicators (and digital outputs with 'lamptest' on) of this I/O Processor.

System On Output:

The configured digital output channel connected to this function will be activated when the I/O Processor is switched on and is running. It will turn on/off System On Indicator on processor board.

Horn Output Follows Channel:

The configured digital input channel connected to this function will force the Horn output of this I/O Processor.

System Fail:

The configured digital output channel connected to this function will force the System Fail Indicator on processor board turn on or off.

1131 Restart:

The configured digital input channel connected to this function will force 1131 Program to restart.

1131 Restart Exit LCD Parameter Menu:

When a user exits the LCD Menu (TFT/LCD), and this configured digital input channel is active, it will force 1131 Program to restart.

Enter LCD Parameter Menu:

When a user enter the LCD Menu (TFT/LCD), this configured digital output channel turn on.

Exit LCD Parameter Menu:

When a user exits the LCD Menu (TFT/LCD), this configured digital output channel turn off.

Buzzer follows Channel:

The configured digital input channel connected to this function will force the internal Buzzer of LCD/TFT turn on/off.

PAL 1131 Error Code:

When a user develops his PAL-1131 program, and it runs and after a while the program was crashed. The configured analog output channel contains a error code.

1131 Error Code:

- 5: Unknown Function
- 6: Array Out of Bound
- 7: Stack Overflow
- 8: Stack Empty
- 9: Notification Task Cycle Start
- 10: Native Function Block Call
- 11: Task Took Too Long, Cycle Time changed

PAL-1131 Error Location Address:

When a user develops his PAL-1131 program, and it runs and after a while the program was crashed. The configured analog output channel contains a error address location.

Example: Channel reports location address error of 7460 (put into hex code with calc.exe) => 0x1d24

Open your .dcp file in notepad

```
{:1d12} $VMSYS.JMP/1C00 {:1d14} :?XP33.SYSTEM?EOR033F/1C1D  
{:1d16} :?XP33.SYSTEM?OR032D/161D  
{:1d16} $VMSYS.MCD/1C15 {:1d18} I_AM_IN_CONTROL/BD05, {:1d1a} #/01, {:1d1b} #/01  
{:1d1c} :?XP33.SYSTEM?EOR033F/1C1D  
{:1d1c} $VMSYS.MEMCP/1C1F {:1d1e} ?LAC?LIVE_CHECK0343/C409, {:1d20} MY_POSITION/BE05,  
{:1d22} #/0200  
{:1d24} $VMSYS.CEAC/1C2E {:1d26} ?LAC?LIVE_CHECK0343/C409, {:1d28} ?L?CST0306/9609, {:1d2a}  
?L?CST0345/C609
```

Finding 0x1d24, and it's in POU - "SYSTEM" and very close at variable "I_AM_IN_CONTROL"

In this example big chance something was done wrong with "LIVE_CHECK".

In this way you could easy find the line where PAL1131 was stopped.

Mimic

After selecting 'Graphic Pages' and 'Mimic Name'



Number Information only

Title display name, shown in client

Filename filename of this mimic

By double clicking on tree-item the editor is started with this mimic.

About General Settings:

-Tree settings for Mimics (Filename or Title) is for display purposes only.

See Also:

[How to Insert a New Mimic](#)

Shortcuts

Icon: A small icon depicting a stylized tool or settings gear.

Next Pane

Use F6 Key to switch between the panes.

Panel Layout Setup

For general information see also [Extension Alarm System](#).

Cabin Page Setup

Within the general setting you can define the Cabin Page Layout. This layout will be used for all cabin (type) panels on board of the ship. Selecting the Cabin setup folder from the tree will give you the following setup area:

Indicator settings				Horn settings			
	Description	Function		Mode	Mode	Type	Reset
1	On Duty	On Duty & UnAttended	-	O.D.	-	-	-
2	General Engineers Alarm	GEA	-	Both	Both	Tone	No
3	Dead Man Alarm	Deadman	-	Both	Both	Tone	Yes
4	Propulsion alarms	Group:	1	O.D.	UnAtt	Tone	No
5	Switchboard alarms	Group:	2	O.D.	UnAtt	Tone	No
6	Fire alarm	Group:	3	O.D.	UnAtt	Tone	No
7	Other alarms	Group:	4	O.D.	UnAtt	Pulse	No
8	Call from ECR	Call from ECR	-	Both	Both	Tone	No
9		None	-	-	-	-	-
10		None	-	-	-	-	-
11		None	-	-	-	-	-
12	Engine Room Alarm 4	Group:	4	Att	Off	-	-
13	Engine Room Alarm 5	Group:	5	Att	Off	-	-
14	Engine Room Alarm 6	Group:	6	Att	Off	-	-
15	Engine Room Alarm 7	Group:	7	Att	Off	-	-
16	Engine Room Alarm 8	Group:	8	Att	Off	-	-

Indicator Settings

Description:

Descriptive text for the selected function. This text is transmitted to the EAS page of the Local Operator Panel in case this panel is setup as cabin unit.

Function:

The indicator can be activated with the following **alarm** functions:

- NONE No activation of this indicator.
- Group xx The indicator will be activated as soon as one or more channels in this group is(are) going into the alarm state. The group number is specified in the second column of the function.
- GEA The indicator will be activated in case of a General Engineer Alarm.
- DEADMAN The indicator will be activated in case of a Deadman Alarm.
- GEA or DEADMAN The indicator will be activated in case of a General Engineer Alarm or/and Deadman alarm.

The indicator can be activated with the following **status** functions:

- ATTENDED The indicator will be activated in case of an attended state of the engine room.
- UNATTENDED The indicator will be activated in case of an unattended state of the engine room.
- ON DUTY & UNATTENDED The indicator will be activated in case of an unattended state of the engine room and when this cabin is selected to be the on duty engineer.

- ON DUTY The indicator will be activated in case that the on
- SELECTED duty selection x is selected.
- CALL FROM ECR The indicator will be activated in case that the engineer is called from the Engine Control Room.
- CALL FROM BRDIGE The indicator will be activated in case that the engineer is called from the bridge.

Mode:

The mode is a setting to indicate when the function will activate the indicator. The following modes can be selected:

- ON DUTY The indicator will only be activated by the selected function if the cabin unit is selected On Duty.
- ATT The indicator will only be activated by the selected function if the engine room is attended.
- UNATT The indicator will only be activated by the selected function if the engine room is unattended.
- BOTH The indicator will only be activated by the selected function if the engine room is attended or unattended.

Horn Settings:

Mode:

The mode is a setting to indicate when the function will activate the horn. The following modes can be selected:

- OFF The horn will never be activated by the selected function.
- ATT The horn will only be activated by the selected function if the engine room is attended.
- UNATT The horn will only be activated by the selected function if the engine room is unattended.
- BOTH The horn will only be activated by the selected function if the engine room is attended or unattended.

Type:

The type is a setting to determine what sound the horn will make. The following modes can be selected:

- TONE The horn will make a continues sound
- PULSE The horn will make an intermittent sound.

Reset:

The reset is a setting to determine whether the horn should be stopped or not when pressing the accept button. The following modes can be selected:

- YES The horn will be stopped pressing the accept button.
- NO The horn will not be stopped pressing the accept button.

Messroom Page Setup

Within the general setting you can define the Messroom Page Layout. This layout will be used for all messroom (type) panels on board of the ship. See Cabin Page Setup.

Note: For setup of the mode of the indicator for the messroom page, the selection 'On Duty' is not available.

Passwords

After selecting 'Passwords' and 'General Settings'

ID	User Name	Level	Password	Confirm
1	John	0	*****	*****

Logged in as a normal user, it's own password could be changed.

- **ID** System ID
- **UserName** Login name
- **Level** Level of Permission (Access Rights)
- **Password** Type your password
- **Confirm** Re-type your password, must be same as at password

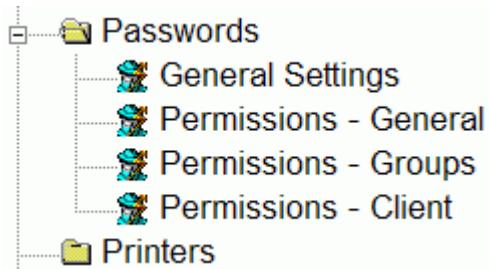
If Logged in as a system administrator, all usernames and their passwords and levels could be changed.

Shortcuts

Icon: 

Permissions – Client

After selecting ‘Passwords’ and ‘Permissions - Client’



Besides Login passwords another kind level of protection is introduced. Distinguish are levels 0,1,2,3 and M (master level). This field could only adapted at Administrator level.

Control Dialogs of the Camclient are placed here.

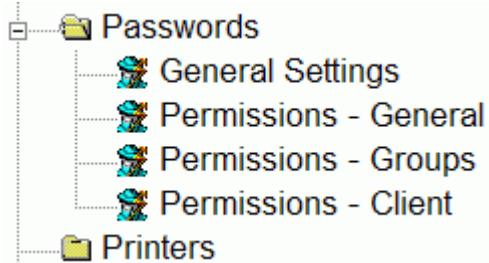
Level	Level
<Ctrl>+A (Client Properties Configuration)	—
>> Group Access	0
>> Demand Log	1
>> Dimming	0
>> Clustering	0
>> Miscellaneous	0
>> Show	0
>> Permissions	0
>> Printing	1
<Ctrl>+B (Client Top Button Configuration)	1
<Ctrl>+D (Server Debug Window)	0
<Ctrl>+G (Client Group Configuration)	1
<Ctrl>+K (Client Key Assignment)	0
<Ctrl>+M (Client Graphic Configuration)	1
<Ctrl>+S (System Information)	0
	—

Shortcuts

Icon:

Permissions – General

After selecting ‘Passwords’ and ‘Permissions - General’



Besides Login passwords another kind level of protection is introduced. At every view in PAL it is possible to configure a level of access. Distinguish are levels 0,1,2,3 and M (master level). This field could only adapted at Administrator level.

Level	Level
	—
Graphic Pages	0
Groups	per Group
>> Groups - Trending	per Group
>> Groups - Logging	per Group
Hourcounters	0
Job and Language	0
Plugins	0
>> Remote Data Items	0
>> General Settings	—
>> Communication Settings	0
>> EAS - Text	0
>> EAS - GEA/Deadmen	0
>> Cabin/Mess - Display	0
>> EAS - LOP	0
>> EAS - LED	0
Power Management	0
Printers	0
>> Print Alarm Log	0
>> Print Periodic Log	0
Special	—
>> Show Changes	0
>> Check Database	0
>> Print Labels	0
>> Calc Processor Load	0
>> Check Mimics - Channels	0

System Parameters	
>> Clustering	M
>> Diagnostics	0
>> Display Conversion	0
>> Engineering Units	0
>> General Settings	0
>> Horns	0
>> Status Texts for Diagnostics	0
PAL Menu	—
>> Copy or Move Channel	0
>> Copy or Move Channel Range	0
>> Copy or Move Board Range	M
>> Change Eng. Units	0
>> Change Mimics	0
>> Clear Show Changes	0
>> Correct Database	M
>> Automatic Mimics Update	M

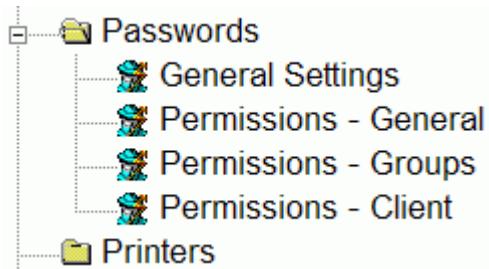
In principle everything of the PAL is placed here except for Ethernet fieldbus dependent items. (such as Boards/Channels/Conversion Tables)

Shortcuts

Icon:

Permissions – Group

After selecting 'Passwords' and 'Permissions - Group'



Besides Login passwords another kind level of protection is introduced. Distinguish are levels 0,1,2,3 and M (master level). This field could only adapted at Administrator level.

Group Permissions are placed here.

Before using this option, user needs to set "per group" at the 'Permissions - General'.

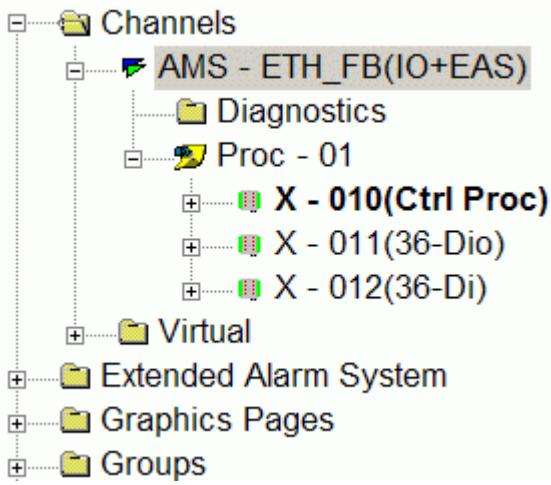
This option could be used for Trend Groups which a user is allowed to adapted, but the same user is not allowed to change another group configuration.

Group Nr - Description	Group	Log	Trend
1 - Groupname	M	M	M
2 - Groupname	M	M	M
3 - Groupname	M	M	M

Shortcuts

Icon:

Permissions - Fieldbus



Besides passwords another kind level of protection is introduced. At every Fieldbus it is possible to configure a level of access. Distinguish are levels 0,1,2,3 and M (master level). This field could only adapted at Administrator level.

Only Fieldbus dependent items is placed under this.

PMS_AMS	Level
Processor Position Table	0
>> General Settings	—
>> Usage of IEC-1131	0
>> Configuration of IEC-1131	0
>> 1131 List	0
>> Miscellaneous Table	0
>> Board Diagnostics	0
>> RXP Channel List	0
Communication Settings	0
General Board Setup	0
Board Setup	0
>> Channels	—
>> Delay/Limits/Report/Fail Detect/Groups	1
>> Skip	2
>> Others	0
>> Conversion Table	0
—	—
>> Channel Layout	0
Status Texts	0
—	—

For example looking at the figure above:

[Processor Position Table](#) can only be configured when you logged to PAL with level 0 or M.

If "—" is displayed, no permission could be connected because this item is used for grouping several items.
For example: ">> Channels" with "—".

This item is splitted in "Delay/Limits/Report/Fail Detect/Groups", "Skip" and "Others".

Shortcuts

Icon:

Pick Actions

Location of these settings is in the tree area just below the Graphic Pages (Mimics), see the following image of the tree area:



See Example of Pick Action

Name:	Open Close	Type:	0 - Pick Action	Test Dialog							
Title	Open Close										
Alt. Title:	オープン + クローズ										
Width:	100	Height:	140								
<input checked="" type="checkbox"/> Have Pre-Warning MessageBox	Select:	22 - MsgBox One									
Nr	Type	Text	Alt.Text	Pos X	Pos Y	Width	Height	CloseAction	FuncNr	FuncData	Confirm
1	BUTTON	OPEN	オープン	2	2	90	25	1			23 - MsgBox Two
2	BUTTON	CLOSE	クローズ	2	29	90	25	1			24 - MsgBox Three
3	CANCEL	Cancel	キャンセル	2	83	90	25				
4											

General Settings:

Type:

- 0 - Pick Action (normal),
- 1 - Message Box (for warning or confirm selections), Set
- 2 - NumPad (special pick action, a value input by pressing buttons 0..9)
- 3 - Set Latitude (special pick action, for NMEA Input to set manually a x-position)
- 4 - Set Longitude (special pick action, for NMEA Input to set manually a y-position)

Title: Title Bar Text of Dialog

Alt Title: Title Bar Text of Dialog when using alt. language option

Width: Width of Pick Action Dialog

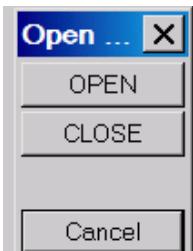
Height: Height of Pick Action Dialog

Have Pre-Warning MessageBox:

when controlling a element by pick action dialog, a messagebox is shown first

Select: for selection the pre-warning messagebox

when pressing on 'Test Dialog' button



Controls on Pick Action Dialog

Type:

BUTTON - normal button
OK - button for accept the action of dialog
CANCEL - button for cancel the action of dialog
EDIT - input of value
STATIC - display a static text
COMBO - for selection an option
COLOR - for selection a color
TEXT - display a text
DTEXT - display a text which could be changed
CHECK - checkbox (yes/no) selection
PUSHBUTTON - button who shows it's state like a pressed up or pressed down state

Text: text which is shown on control

Alt Text: text which is shown on control when using alt. language option

Pos X: position of x-coordinate of control on dialog box

Pos Y: position of y-coordinate of control on dialog box

Width: width of control on dialog box

Height: height of control on dialog box

CloseAction: 0 or 1, when pressing a button, dialog could be closed directly

remark: only usable at Type "Button" (OK and Cancel will closed directly too)

Func Nr: very special data, used for example at NumPad pick action

Func Data: very special data used for example at Set Latitude pick action

Confirm: for selection a messagebox dialog after a button is pressed

Example of MessageBox:

Name:	MsgBox One	Type:	1 - MessageBox	Test Dialog																																																																						
Title:	WARNING																																																																									
Alt. Title:	警告																																																																									
Width:	200	Height:	200																																																																							
<table border="1"> <thead> <tr> <th>Nr</th> <th>Type</th> <th>Text</th> <th>Alt.Text</th> <th>Pos X</th> <th>Pos Y</th> <th>Width</th> <th>Height</th> <th>CloseAction</th> <th>FuncNr</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>STATIC</td> <td>There is a possibility of oil contamination when this valve is opened?</td> <td>また石油の可能性がある汚染、ときに、この弁を開けたときに石油の可能性がある</td> <td>10</td> <td>10</td> <td>200</td> <td>20</td> <td></td> <td>2</td> </tr> <tr> <td>2</td> <td>STATIC</td> <td>Open the valve?</td> <td>バルブを開きますか？</td> <td>10</td> <td>30</td> <td>200</td> <td>20</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>STATIC</td> <td>Yes</td> <td>はい</td> <td>10</td> <td>50</td> <td>200</td> <td>20</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>OK</td> <td>No</td> <td>ノー</td> <td>10</td> <td>70</td> <td>200</td> <td>20</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>CANCEL</td> <td></td> <td></td> <td>5</td> <td>120</td> <td>90</td> <td>25</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td>100</td> <td>120</td> <td>90</td> <td>25</td> <td></td> <td></td> </tr> </tbody> </table>					Nr	Type	Text	Alt.Text	Pos X	Pos Y	Width	Height	CloseAction	FuncNr	1	STATIC	There is a possibility of oil contamination when this valve is opened?	また石油の可能性がある汚染、ときに、この弁を開けたときに石油の可能性がある	10	10	200	20		2	2	STATIC	Open the valve?	バルブを開きますか？	10	30	200	20			3	STATIC	Yes	はい	10	50	200	20			4	OK	No	ノー	10	70	200	20			5	CANCEL			5	120	90	25			6				100	120	90	25		
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3	STATIC	Yes	はい	10	50	200	20																																																																			
4	OK	No	ノー	10	70	200	20																																																																			
5	CANCEL			5	120	90	25																																																																			
6				100	120	90	25																																																																			

Func Nr when having a MessageBox :

this is for displaying a icon

0: Icon Information

1: Icon Question

2: Icon Warning

3: Icon Error

4: Icon Windows Logo

Prev Pane

Use F6 Key to switch between the panes.

Print dialog box

The following options allow you to specify how the document should be printed:

Printer

This is the active printer and printer connection. Choose the Setup option to change the printer and printer connection.

Setup

Displays a [Print Setup dialog box](#), so you can select a printer and printer connection.

Print Range

Specify the pages you want to print:

All Prints the entire document.

Selection Prints the currently selected text.

Pages Prints the range of pages you specify in the From and To boxes.

Copies

Specify the number of copies you want to print for the above page range.

Collate Copies

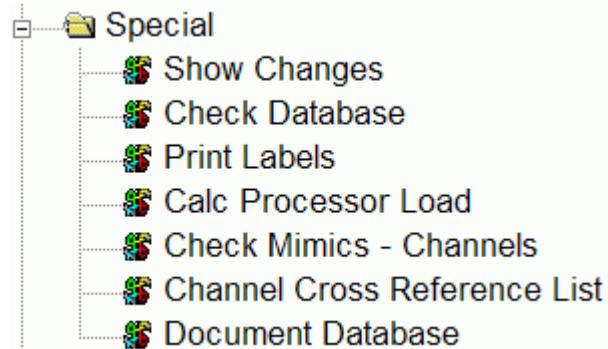
Prints copies in page number order, instead of separated multiple copies of each page.

Print Quality

Select the quality of the printing. Generally, lower quality printing takes less time to produce.

Print Labels

After selecting 'Special' and



Processor Texts:	SYSTEM ON	I/O BOARD FAILURE
Processor Part ID:	Part No.: 98.6.049.706	
Processor Name:	CONTROL PROCESSOR BOARD ID:	
Processor Number ID:	XP	<input type="checkbox"/> Tagname <input type="checkbox"/> Skip Not Installed Channels
Board Name:	I/O BOARD ID.:	BUS BAR VOLTAGE
Board Part ID (12Di/8Do):	Part No.: 98.6.030.702	GENERATOR VOLTAGE
Board Part ID (24 Di):	Part No.: 98.6.032.702	24Vdc INPUT
Board Part ID (16mix):	Part No.: 98.6.034.703	24Vdc OUTPUT
Board Part ID (16Ai):	Part No.: 98.6.034.702	SHUTDOWN OUT
Board Part ID (PMS):	Part No.: 98.6.034.704	FAILURE OUT
Font Name: - Arial -	Range: 101 496	<input type="checkbox"/> Processor Number
<input type="button" value="Font"/> <input type="button" value="Print Labels - Boards"/> <input type="button" value="Print Labels - Processors"/> <input type="button" value="Print Labels - PMS"/>		

PRAXIS
AUTOMATION TECHNOLOGY

Three types of output are possible, by pressing one of these buttons:

1. Print Labels – Boards
2. Print Labels – Processors
3. Print Labels – PMS Boards

Insert at range how many boards needed to be printed.

Check Boxes:

- processor Number (output 2), use processor number instead first board number
- skip not installed channels (output 1 + output 3), empty not installed channels
- Tagname (output 1+output 3) use tagname, will be placed before description

Text fields will be placed on the output. This texts could be changed, but changes will not be stored and only be used on direct output.

Shortcuts

Icon: 

Print Preview toolbar

The print preview toolbar offers you the following options:

Print

Bring up the print dialog box, to start a print job.

Next Page

Preview the next printed page.

Prev Page

Preview the previous printed page.

One Page / Two Page

Preview one or two printed pages at a time.

Zoom In

Take a closer look at the printed page.

Zoom Out

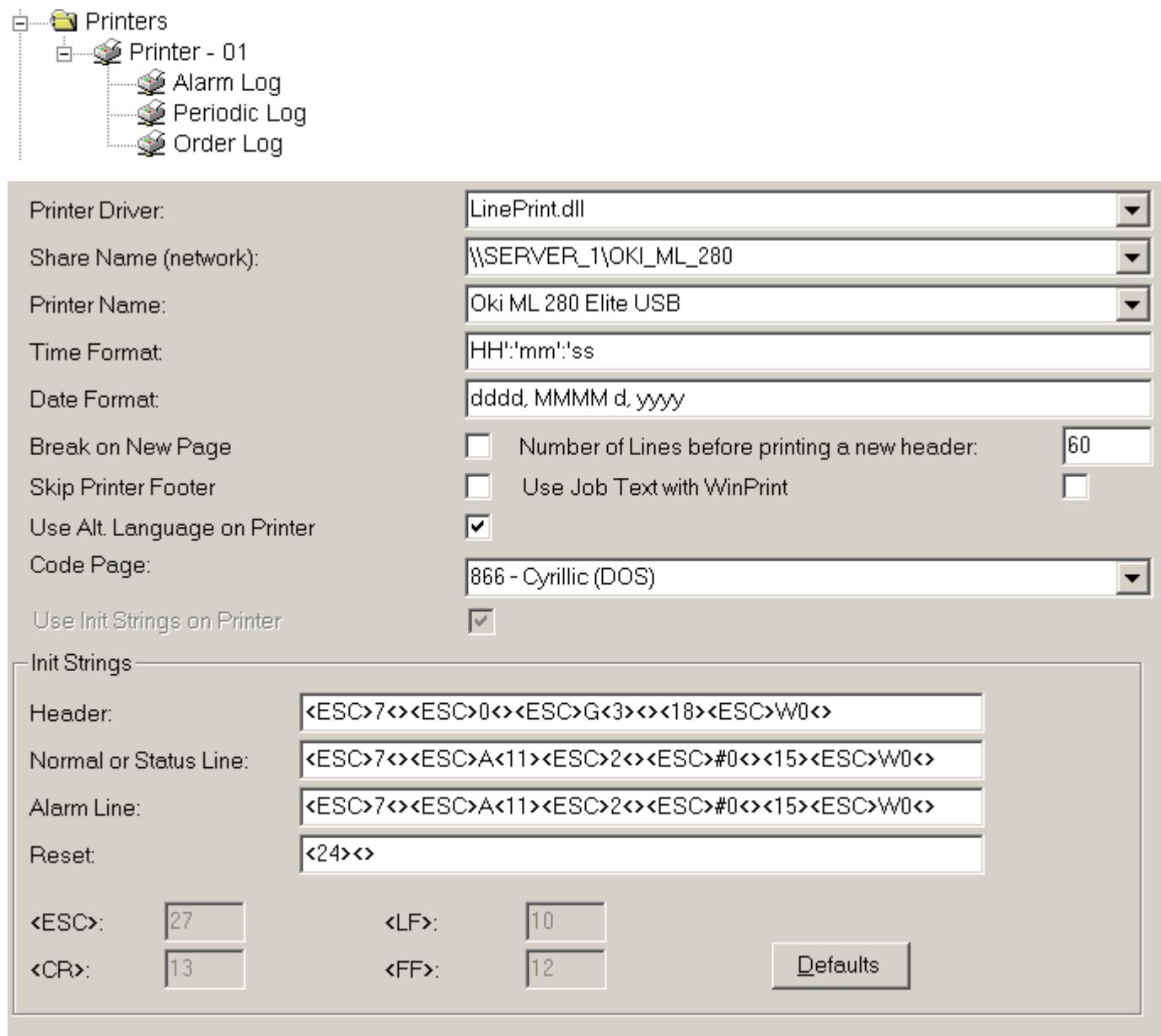
Take a larger look at the printed page.

Close

Return from print preview to the editing window.

Printers

After selecting 'Printer' and 'Printer - xx'



Printer Driver lineprint.dll or winprint.dll It's possible to chose 'None', to turn off printer.

What is my choice? Lineprint.dll or Winprint.dll.

When you have OKI printer or another dot matrix variant or thermal printer you should choose for lineprint.dll.

When you a laser printer (A4) or deskjet printer (A4) you should choose for winprint.dll.

If you only want to do 'Periodic Log' and having HP deskjet printer is also possible to choose for lineprint.dll but winprint.dll could be chosen also in this case.

Share Name (network) insert network printer share name, needed if printer is placed on a client station. Server makes connection to printer at startup.

Printer Name like OKI or HP, important to fill in because default init strings will created after printer name.

Time Format Printing Time in the Header/Footer of Alarm/Periodic/Demand Log use this format string.

default: HH':'mm':'ss

this gives: 23:55:10

Another Options are:

Format	Description
h	Hours with no leading zero for single-digit hours; 12-hour clock.

hh	Hours with leading zero for single-digit hours; 12-hour clock.
H	Hours with no leading zero for single-digit hours; 24-hour clock.
HH	Hours with leading zero for single-digit hours; 24-hour clock.
m	Minutes with no leading zero for single-digit minutes.
mm	Minutes with leading zero for single-digit minutes.
s	Seconds with no leading zero for single-digit seconds.
ss	Seconds with leading zero for single-digit seconds.
t	One character time-marker string, such as A or P.
tt	Multicharacter time-marker string, such as AM or PM.

Date Format Printing Date in the Header/Footer of Alarm/Periodic/Demand Log use this format string.

default: dddd, MMMM d, yyyy

this gives: Thursday, May 7 2009

Another Options are:

Format	Description
d	Day of month as digits with no leading zero for single-digit days.
dd	Day of month as digits with leading zero for single-digit days.
ddd	Day of week as a three-letter abbreviation. The function uses the "ABBREVDAYNAME" value associated with the specified locale.
dddd	Day of week as its full name. The function uses the "DAYNAME" value associated with the specified locale.
M	Month as digits with no leading zero for single-digit months.
MM	Month as digits with leading zero for single-digit months.
MMM	Month as a three-letter abbreviation. The function uses the "ABBREVMONTHNAME" value associated with the specified locale.
MMMM	Month as its full name. The function uses the "MONTHNAME" value associated with the specified locale.
y	Year as last two digits, but with no leading zero for years less than 10.
yy	Year as last two digits, but with leading zero for years less than 10.
yyyy	Year represented by full four digits.

Break on New Page end of page code is generated

Skip Printer Footer No footer is printed

Number of lines before printing a new header default 60, after printing this amount of lines the alarm/order log header is printed again

Use Job Text with WinPrint On the header, the job message text is used, applies only for winprint.dll

Use Alt. Language On Printer Possible to print in another language, which doesn't use the Roman alphabet, like Russian, a special IC should be placed inside the printer to support this.

CodePage Choose your language, if alt.language usage is desired

Use Init Strings On Printer Turn on for lineprint.dll, turn off for winprint.dll, when turn off init strings fields will hidden and new fields will shown.

Init Strings:

Header before a header is printed, this string is sent to printer to set up font

Normal Status Line before a normal status line is printed, this string is sent to printer to set up font

Alarm Line before a alarm line is printed, this string is sent to printer to set up font

Reset reset code of printer

Initializing strings can be adapted, but is not recommended, use default values which will be filled in automatically after inserting a printer name.

When having a termal printer on all 'Init Strings' should be made empty.

Remark about Printer port: When lineprint.dll is chosen, a LPT number will be used for a network share.

This number is automatically chosen by Printer number + 2 equals LPT port number.

The system will create a LPT3 share for Printer 1, a LPT4 share for Printer 2 and so on.

The next items will only available when winprint.dll is chosen.

Use Color at new Alarm Line	<input checked="" type="checkbox"/>	<input type="button" value="Color"/>	
Use Bold Font at new Alarm Line	<input type="checkbox"/>		
Number of Seconds before Printing:	3600		
Number of Alarms per Page:	65		
Use OKI Line Printer with WinPrint:	<input type="checkbox"/>		
<input type="button" value="Font"/> Name: - Courier New - Size: 14			

Use Color at new Alarm Line winprint.dll only, new alarms will be printed into special color chosen via color button.

Use Bold Font at new Alarm Line winprint.dll only, new alarms will be printed with a bold font.

Color Button winprint.dll only, a special color could be chosen, default color is red.

Number of Seconds before Printing winprint.dll only. It's possible to use the printer buffer, to let printer do its print-out after an adjustable time.

This prevents a printer prints direct after one alarm occured.

Number of Alarm per Page winprint.dll only. When using a deskjet printer normally a A4 paper format is used. On such paper format it's possible to print out 50 lines.

Use OKI Line Printer with WinPrint winprint.dll only, use this option for East-Asia Language support

Font Button winprint.dll only, a special printer font could be used, when alt. language is turned on.

Remark: When a channel comes in alarm, alarm line is printed, after the channel alarm is solved a normal or status line is printed.

Use SNMP (network printer)	<input checked="" type="checkbox"/>	Name:	01 - HP LaserJet 400 color	<input type="button" value="▼"/>
Network Printer - IP Address:	192 . 168 . 1 . 240		IP Port:	161

Use SNMP (network Printer)

When having a stand-alone network printer, some printers use a special network protocol (SNMP)

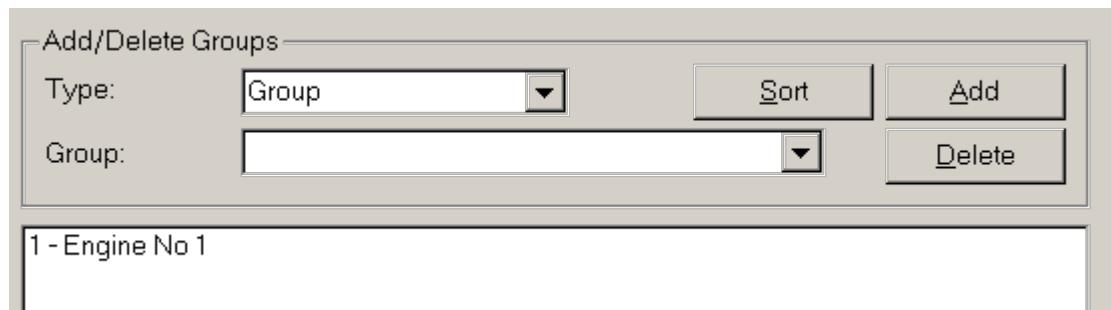
This is used for getting printer status like "out of paper" / "printer buffer full" etc.

Network Printer address must be filled in correctly.

Shortcuts Icon: 

Printers – Alarm Log

After selecting ‘Printer’ and ‘Printer - xx’, and Alarm Log



Alarm Log Check box to turn on/off alarm log for this printer

Add/Sort/Delete Buttons to insert/delete groups which needed to be logged

Remark: For alarm logging normally group 0 is inserted.

Shortcuts

Icon:

Printers - Periodic Log

After selecting 'Printer' and 'Printer - xx', and Periodic Log

Add/Delete Groups

Type: Group Sort Add

Group: Delete

1 - Engine No 1

First Log Time After start of system, logging will be start at certain time (hours:minutes) (max 23:59)

Log Interval Time After a certain interval (hours:minutes) logging will be printed again (max 24:00)

Channel for disable/enable periodic log digital channel for enable/disable the printing

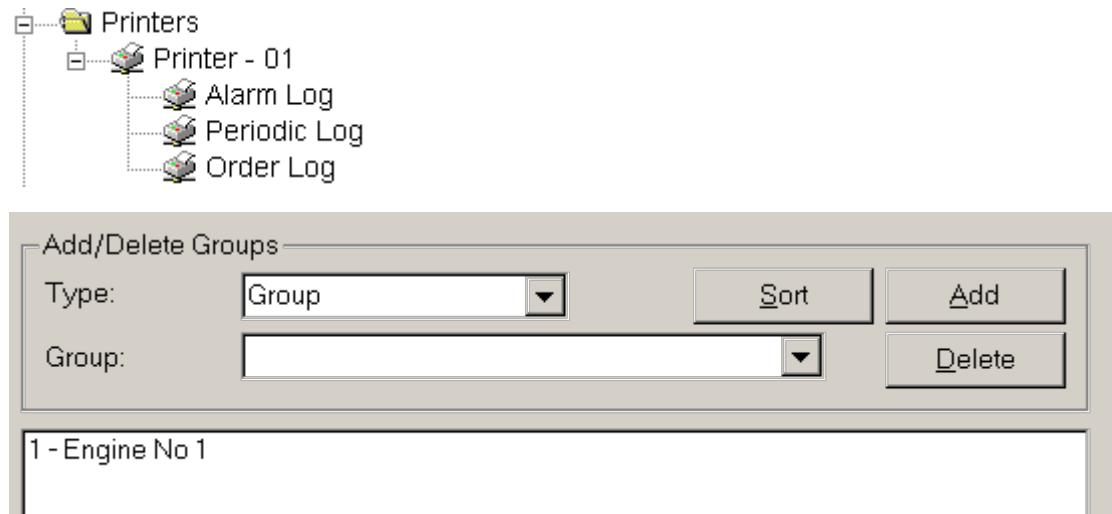
Remark: for restarting the periodic log timer a another configuration item needs to be set
see also: [Groups](#)

Shortcuts

Icon:

Printers - Order Log

After selecting 'Printer' and 'Printer - xx', and Order Log



Order Log Check box to turn on/off order log for this printer

Add/Sort/Delete Buttons to insert/delete groups which needed to be logged

Logging on windows printer, for example a digital status channels
with settings Print Status: 'To Active Only' or 'Both'.

Channel:	33223	List	Tag Name:	33223
Description:	LEVER STATUS FULL AHEAD			
1131 Name:	NOT USED - C223 - (BOOL)			Skip: No
Type:	Digital Input	Source:	IEC-1131	
<hr/>				
Sensor Fail:	None			
Norm. Cond.:	Open			
<hr/>				
Report:	Status			
Retain Value	<input type="checkbox"/>			
<hr/>				
Alarm Delay:	0.0	sec		
Inhibitor:	None			
Status Texts:	Off	On	SensFail	
Print Status:	Both			
Area Groups:	1 - Engine No 1			Min. Event Timeout: 5
1 - Engine No 1				

Shortcuts

Icon: 

Print Setup dialog box

The following options allow you to select the destination printer and its connection.

Printer

Select the printer you want to use. Choose the Default Printer; or choose the Specific Printer option and select one of the current installed printers shown in the box. You install printers and configure ports using the Windows Control Panel.

Orientation

Choose Portrait or Landscape.

Paper Size

Select the size of paper that the document is to be printed on.

Paper Source

Some printers offer multiple trays for different paper sources. Specify the tray here.

Options

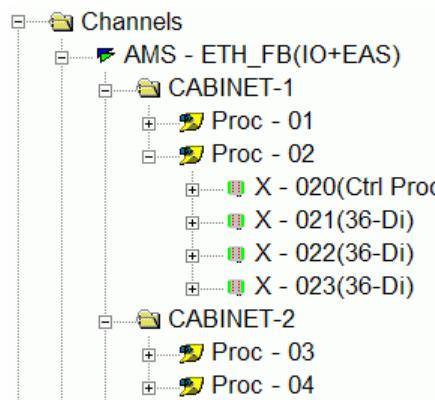
Displays a dialog box where you can make additional choices about printing, specific to the type of printer you have selected.

Network...

Choose this button to connect to a network location, assigning it a new drive letter.

1131 Reference List

Location of these settings is in the tree area just below 'Channels', see the following image of the tree area:



By selecting one of the I/O Processors the setup area will show the information that can be configured to local processor:

Processor Number : 01

General Settings | Miscellaneous Table | XP Diagnostics | Channel Cross Reference List | 1131 Reference List | 1131G Object List | 1131 IOS List | 1131 IO-Module List

Cycle Time-out (ms):	100	Check Size	Add All Missing Channels	Update 1131 XML File	Variable Not Used
Use Local Channel Numbering	<input type="checkbox"/>	Start PAL 1131			Variable Address Invalid
Number of items used:	204	Check List	Create All Remote XP List		Channel/Variable Double Used

Nr	Channel	TagName	Description	Dir	Variable	Type	Used 1131
1	1019	01019	Camera 1 Zoom Out	<=	CAMERA_1_ZOOM_IN	BOOL	<input checked="" type="checkbox"/>
2	1020	01020	Camera 1 Zoom In	<=	CAMERA_1_ZOOM_OUT	BOOL	<input checked="" type="checkbox"/>
3	1021	01021	Camera 1 JoyStick UP	<=	CAMERA_1_JOYSTICK_UP	BOOL	<input checked="" type="checkbox"/>
4	1022	01022	Camera 1 JoyStick DOWN	<=	CAMERA_1_JOYSTICK_DOWN	BOOL	<input checked="" type="checkbox"/>
5	1023	01023	Camera 1 JoyStick LEFT	<=	CAMERA_1_JOYSTICK_LEFT	BOOL	<input checked="" type="checkbox"/>
6	1024	01024	Camera 1 JoyStick RIGHT	<=	CAMERA_1_JOYSTICK_RIGHT	BOOL	<input checked="" type="checkbox"/>
7	1025	01025	Camera 1 select from MM	=>	CAMERA_1_SELECT_FROM_MM	BOOL	<input checked="" type="checkbox"/>
8	1026	01026	Camera 1 selected	<=	CAMERA_1_SELECTED	BOOL	<input checked="" type="checkbox"/>

This list is for updating channel values or statuses from/to 1131 Programs.

Channel channel to connect as input or output to a 1131 variable.

TagName channel tagname, for display only

Description channel description, for display only

Dir direction

- '>' channel value to 1131 variable value (input)
- '<=' 1131 variable (output result) to channel value

Variable: global variable name in 1131

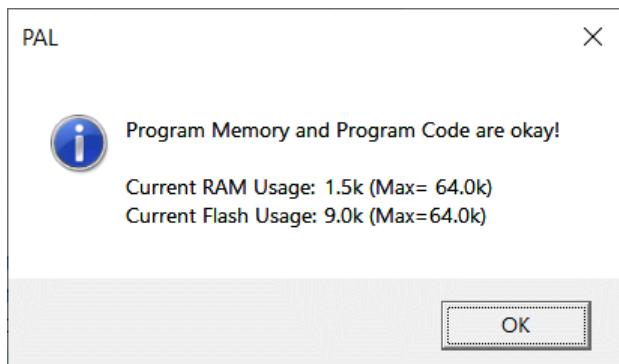
Type:

- BOOL - digital channel status
- FINT - analog channel value

Used 1131 a checkbox to make a global variable in 1131 active

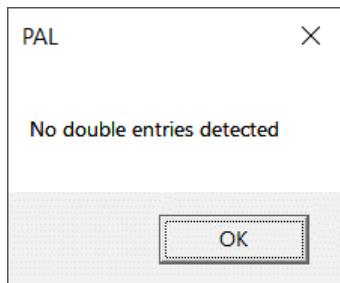
Several buttons with specific functions

Check Size each type of processor has limited size of RAM and Flash to run PAL1131 program



Start PAL 1131 to start PAL-1311 editor, to create ST (struct text) programs/functions

Check List to check if variable names are correct and check if entries are not double used



Add Missing Channels add all channels of this processor which are configured but not add in this reference list

Create All Remote XP List when using channels from other processor in this list, RXP list needs to be re-created.
This will be done automatic, but sometimes it's likely to force this re-creation by yourself.

Update 1131 XML File when pressing this button all the global variables in .xml project file are renewed. This means:

- all global variables (linked to a channel) are removed
- all global variables are created with information from this grid view
- the .xml file is adapted

Remark: if there are any changes, the best way to go: to start PAL1131 rebuild the project

in PAL.ini file there is a setting "1131_RemoveGlobalVar=1"

a) 1131_RemoveGlobalVar=1 (true)

if configuration line (channel + variable name) has **Used 1131** checkbox off;
this variable will be removed from .xml file

b) 1131_RemoveGlobalVar=0 (false)

if configuration line (channel + variable name) has **Used 1131** checkbox off;
this variable will **NOT** be removed from .xml file, so it will be existing the 1131 project
(the channel description will be removed from .xml file, but variable itself not)

Three colors are added to give the user a hint that some channels/variables needs extra attention

Variable Not Used only for better distinction between used and not used variables

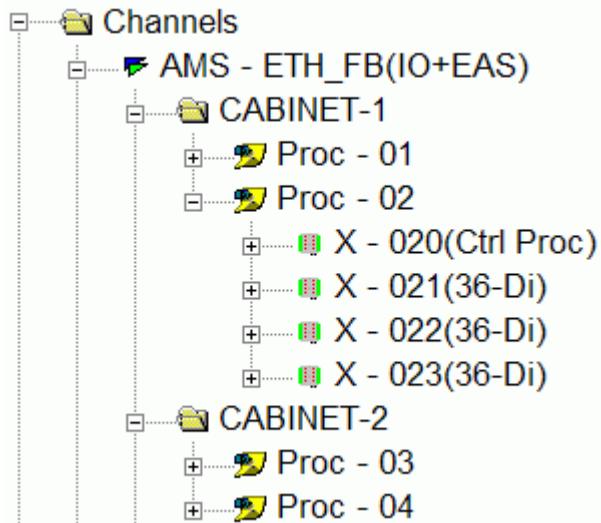
Variable Address Invalid a refresh of list is needed, select a different form view and come back to this form view

Channel/Variable Double Used items should not be used twice, invalid channel updates could result to invalid behaviour

Processor Position Table

After inserting a Ethernet Fieldbus item with type of I/O (see: [How to Insert a Plugin](#))

The tree will be something like:



After selecting Processor Position Table a empty table is being appeared:

Processor Position Table				
Group	μP	Panel	SwID	IO-Mod 1
None		None	STD	None
AMS		None	STD	None
CCMS		None	STD	None
MGPanels		None	STD	None
BMS/PCS		None	STD	None
DP		None	STD	None
PMS		None	STD	None
EAS		None	STD	None
		None	STD	None

The purpose of this view is to insert or delete XPs and its I/O-Modules to a ethernet fieldbus. To accomplish this, first fill in the 'Group' Field.

Group Specify the Product Group. A example of Product Group is 'AMS'.

μP The μP (=micro-processor) is a number limited 1 to 99.

Panel Specify the Panel configuration type. Like 'XP-2E' what means that type is XProcessor.

Group	μP	Panel	SwID	IO-Mod 1
AMS	1	None	STD	None
		None	STD	None
		XP-2E	STD	None
		TFT-84	STD	None
		16-Alm	STD	None
		NavLight	STD	None
		FireAlm	STD	None
		WinWiper	STD	None
		LCD Op	STD	None
		BNWAS	STD	None
		TFT-57	STD	None

SwID

Specify the Software Identifier. This is the kind of firmware the XP/TFT/Panel is loaded with.

Like 'STD' what means that ID is Standard. Corresponding firmware file 'app-xp-std.bin'

SwID for XP-2E:

- STD : standard, includes the standard protocols, these are MBM / MBS / NMEA_IN / NMEA_OUT / MSMRU / MTUS / MG
- CAN : canbus J1939 (CAT / MTU), CanOpen (Limited), NMEA-2000 or EAS Plugin. It is not possible to connect I/O-Modules. It also includes protocols for MBM / MBS
- ExtRD-1 : extended remote data one, it doesn't includes standard protocols but it does include: TTP / MTUS / MBM_TCP / MBS_TCP
- ExtRD-2 : extended remote data two, it doesn't includes standard protocols but it does include: TTP / NMEA_IN / NMEA_OUT / SF_Control / CCM / ATA
- Modbus : modbus remote data, it does include the following protocols: MBM / MBS / MBM_TCP / MBS_TCP

Group	μP	Panel	SwID	IO-Mod 1
AMS	1	XP-2E	STD	36-Dio
AMS	2	XP-2E	STD	None
		None	STD	None
		None	CAN	None
		None	EXT-RD1	None
		None	EXT-RD2	None
		None	MODBUS	None
		None	STD	None

Remark: "-T2W" : Tautwire is removed, now this is included into "-STD"

SwID for XP-4E:

- STD / CAN / ExtRD-1 / ExtRD-2 / Modbus (see above)
- STD-4E includes the all protocols, except the canbus protocols.

Be aware that XP-4E hardware must be of revision D or higher before you could use STD-4E firmware!

SwID for LCD Op:

- PMS : Power Management System
- ODS : On Duty Selection panel
- TMS : Tank Measurement System
- EMT : Emergency Telegraph
- AFAS : Fire Alarm System (Standard or Master)
- ALM : Alarm Panel
- AFAS-SL : Fire Alarm System (Slave)

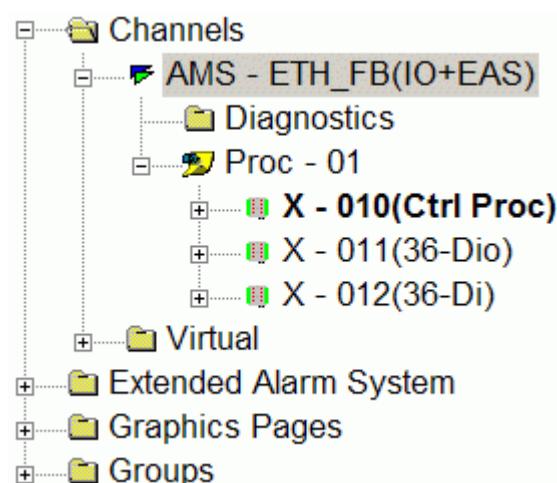
IO-Mod 1..8

Specify the I/O-Module configuration type. Like '36-Dio' what means that type of I/O-Module has 18 digital input channels and

18 digital output channels.

Group	μP	Panel	SwID	IO-Mod 1	IO-Mod 2
AMS	1	XP-2E	STD	None	None
		None	STD	None	None
		None	STD	36-Dio	None
		None	STD	36-Di	None
		None	STD	24-Ai	None
		None	STD	24-Mix	None
		None	STD	PMS	None
		None	STD	CFAS	None
		None	STD	BNWAS-IO	None
		None	STD	33-Dio NL-b	None
		None	STD	33-Dio NL-I	None
		None	STD	33-Dio WW	None
		None	STD	33-Dio NLbl	None
		None	STD	AFAS-IO	None
		None	STD	BMS	None
		None	STD	NoHW	None

Be aware that the tree automatically be updated. After the I/O-Module insertion, the following screen will appear:

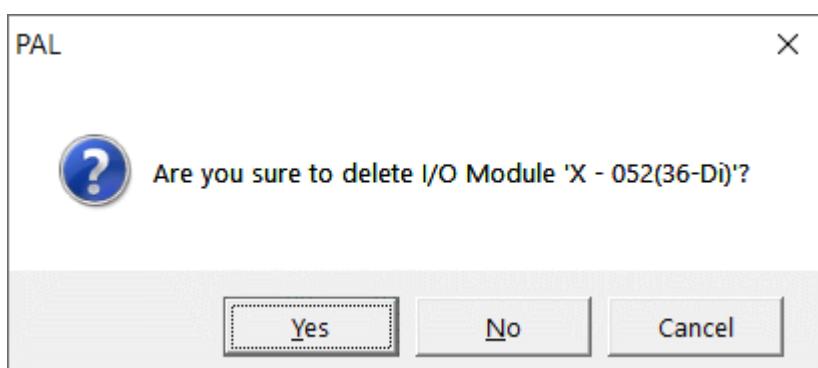


If a new I/O-Module is selected at 'IO-Mod'. A new I/O-Module will be inserted and its number will be generated. This number is not be shown at this view but will be visible in tree. And so on for the next fields 'I/O-Module'.

Delete I/O-Module(s)

There are three ways to remove a I/O-Module:

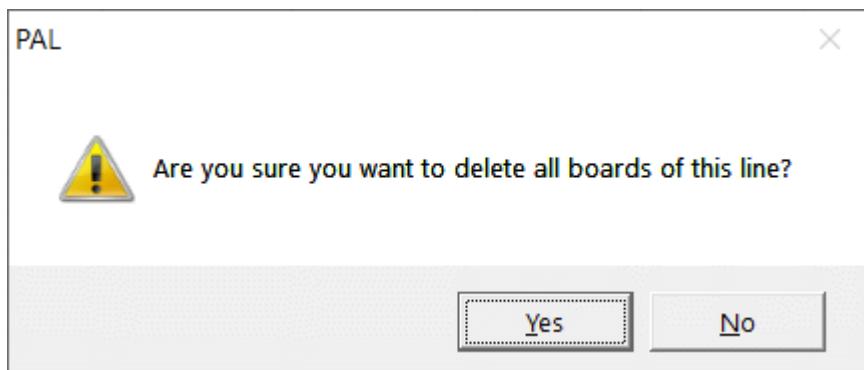
- (1) Select the specific I/O-Module in the tree area that should be deleted and press the delete key on the keyboard. The following message is coming up:



Choose for “Yes” if you are *absolute* sure that you want to delete the I/O-Module.

- (2) Choose for “None” at the field I/O-Module
- (3) Choose for “None” at the field Type, this will delete all XP and I/O-modules which are setup for that processor position.

When you do this; following messagebox will be appear, to remind that this is a very crucial action if all channels from the I/O-Modules involved are setuped:



Choose for “Yes” if you are *absolute* sure that you want to delete the I/O-Modules.

Be aware that the underlying configuration of that I/O-Module(s) like the channels, conversion tables information will be lost!

Pulse Input, Pulse Counter (Item Channels, ETH-FB, Proc, Board, Channels)

For the fields which are in common see [Channels, Pulse Input](#).

Pulse Input used as Pulse Counter

A pulse input can be used for pulse counting. In this case the hardware counter will count pulses starting at the moment that the Start Count input will change from 'False' to 'True'. The counting will stop at the moment the Stop Count will change from 'False' to 'True'. The counter will reset at the moment the Reset Count will change from 'False' to True'.

Pulse / Scan:

- Enter a value between 1 and 3000 to indicate the number of pulses to be counted to set the output to 100% of the range. During counting the output will be equal to:
$$\frac{\text{Countervalue}}{\text{Pulse/Scan}} \times \text{Range} = \text{Output}$$

Range:

- Range limit for the output value.

Start Count:

- Transition from 'False' to 'True' on this channel will start the counting process. This channel must be a local channel on this I/O Board.

Stop Count:

- Transition from 'False' to 'True' on this channel will stop the counting process. This channel must be a local channel on this I/O Board.

Reset Count:

- Transition from 'False' to 'True' on this channel will reset the counter. This channel must be a local channel on this I/O Board. If the reset is defined as the pulse input channel itself, it will execute the reset command as soon as the output has passed the highest limit.

Pulse Input, RPM Measurement (Item Channels, ETH-FB, Proc, I/O-Module, Channels)

For the fields which are in common see [Channels, Pulse Input](#).

Pulse Input Channel used as a RPM Measurement or Asynch RPM Measure (Interrupt driven)

The use of a pulse input:

Teeth/Flywheel:

- Enter the number of teeth on the flywheel for one revolution. Range: 2-256

Range:

- Range limit.

Teeth Overspeed Filter:

- Enter the detection level on the number of teeth per cylinder when we have to detect the overspeed.

Overspeed:

- Enter the limit for detection of overspeed on RPM of the engine.

Fail Detect:

- Has meaning only for the first pickup input of the pair; SENSOR or NONE

Direction Channel:

- Has meaning only for the first pickup input of the pair.
Index of a virtual input channel used to send direction information.
(Ch 29 - 99 for 24-MIX I/O-Module or 0 for none)

Overspeed Output:

- Has meaning only for the first pickup input of the pair.
Index of local Digital Output channel used to shutdown the engine if overspeed is detected
Field is only visible at Limit Type 'H'.

Remarks:

- On 24MIX, only channels 2,3 and 14,15 can hold Pulse Input RPM channels.
- Only one flywheel with two pickups/2 independent RPM channels can be defined for 24MIX I/O-Module.
- The main pickup can only be channel 2 or 14. If two pickups are defined for channel 2, then the other pick-up is assumed to be channel 3 (the other channel from the pair).
- Sensfail condition = when difference between pickup 1 & 2 (normalized to pickup 1) is bigger or equal to 1.5% (fixed hardcoded threshold)
if pickup 1 is 0 RPM, then the second pickup is normalized to RPM Range; the sensfail condition is evaluated for each pickup for a safety reason.
- In value of pulse channel, the current value of RPM will be reported, clamped to RPM Range or MAX_FINT in case of sensfail, sent only if changed more than display deviation.
- AHEAD/ASTERN condition is evaluated on rising edge of pulses.
- In IOP value of direction channel, the value AHEAD (FINT#0) or ASTERN (FINT#1) will be sent.
- Once an overspeed condition is detected, the corresponding Digital Output is closed (if enabled) and remains closed until pickup 1 RPM returns to 0.
- Timeout between two consecutive pulses is hardcoded at 0.5 sec.
if deltaT between two pulses is bigger, then the RPM value is reset to 0,
history table is flushed, direction is set to AHEAD (FINT#0) and overSpeed Digital Output is open (if enabled).

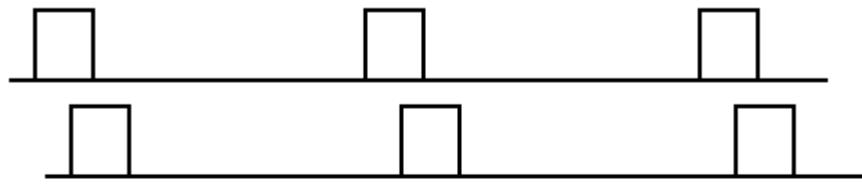
What is different between RPM Measurement or Asynch RPM Measurement

at first, internally the direction detection is handled differently.

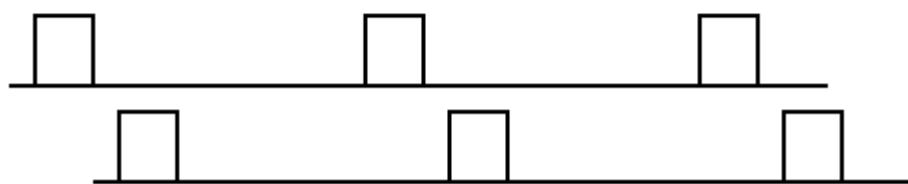
- 1) Pick-ups are placed synchronized, for example, one on the first teeth and one on the first gap.
- 2) Pick-ups are placed independently, with min. of 45 degrees and max. of 90 degrees

these placements results in diffent behaviour, see picture below:

SYNCHRONOUS RPM MEASUREMENT/DIRECTION DETECTION



ASYNCHRONOUS RPM MEASUREMENT/DIRECTION DETECTION



Pulse Input, Revolution Counter (Item Channels, ETH-FB, Proc, Module, Channels)

For the fields which are in common see [Channels, Pulse Input](#).

Pulse Input used as Revolution Counter

A pulse input can be used for pulse counting. In this case the hardware counter will count pulses starting at the moment that the Start Count input will change from 'False' to 'True'. The counting will stop at the moment the Stop Count will change from 'False' to 'True'. The counter will reset at the moment the Reset Count will change from 'False' to True'.

Pulse / Scan:

- Enter a value between 1 and 3000 to indicate the number of pulses to be counted to set the output to 100% of the range.

$$\frac{\text{Countervalue}}{\text{Pulse/Scan}} \times \text{Range} = \text{Output}$$

During counting the output will be equal to:

Also said: "How many pulses per one revolution."

Range:

- Range limit for the output value.

Start Count:

- Transition from 'False' to 'True' on this channel will start the counting process. This channel must be a local channel on this I/O Module.
If the source channel number is 00000, the start count is automatically enabled.

Stop Count:

- Transition from 'False' to 'True' on this channel will stop the counting process. This channel must be a local channel on this I/O Module.
If the source channel number is 00000, the stop count is automatically disabled.

Reset Count:

- Transition from 'False' to 'True' on this channel will reset the counter. This channel must be a local channel on this I/O Module. If the reset is defined as the pulse input channel itself, it will execute the reset command as soon as the output has passed the highest limit.
If the source channel number is 00000, the reset count is automatically disabled.

Retain Value

- Enable or disable the "retain" property of this channel value (Revolutions Counter value).
When enabled, the current value of Revolutions Counter will be cyclically stored to flash memory and also displayed in this box.

(Retain) Default value

- When retain option is enabled,
this field contains the default value used to "initialize" the "retain" channel if no other retain values were stored before.
Note: Every time when I/O-Module switches to "IOM good", the current "retained" value is preset in corresponding I/O-Module channel.

Remark: Retain Interval Time (Proc - General Settings) (in min) represents the minimum period of time between two consecutive savings into flash memory.

The Revolutions Counter value is retained into flash if the value is changed and more than "retain rate" minutes elapsed since last retain.

Save Last Tree Item

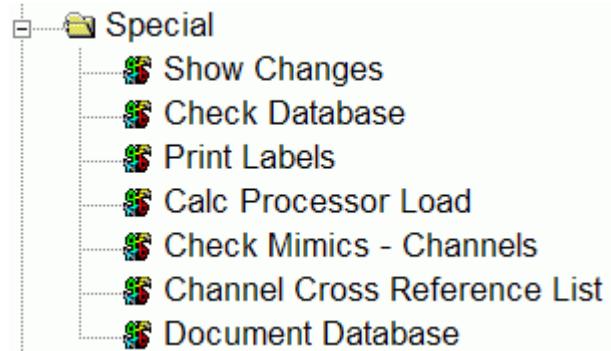
You could save the place where you last were inside PAL after you left the PAL.

Next time, direct after your login, PAL will jump to place in tree where you has left.

Menu-item will be marked/unmarked to give current status if last tree item needed to be stored.

Show Changes

After selecting 'Special' and 'Show Changes'



Inside text file is stored what all channel changes are. So it will always be possible to track down what has changed and when that was done.

Shortcuts

Icon: 

Status Bar



The status bar is displayed at the bottom of the PAL window. To display or hide the status bar, use the Status Bar command in the View menu.

The left area of the status bar describes actions of menu items as you use the arrow keys to navigate through menus. This area similarly shows messages that describe the actions of toolbar buttons as you depress them, before releasing them. If after viewing the description of the toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the toolbar button.

The right areas of the status bar indicate which of the following keys are latched down:

Indicator Description

CAP The Caps Lock key is latched down.

NUM The Num Lock key is latched down.

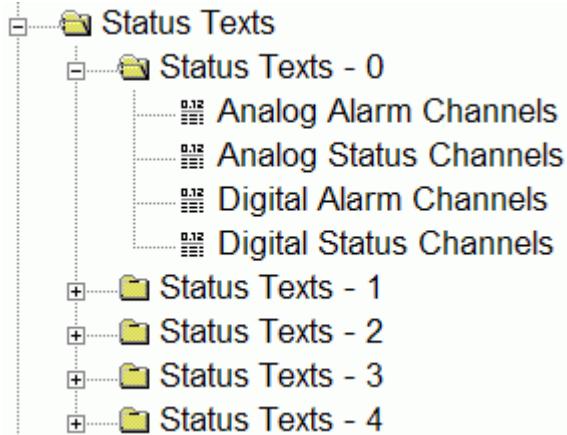
SCRL The Scroll Lock key is latched down.

Status Texts

Up to 16 groups of status texts can be defined for four types of channels each. A status appears as the last field on e.g. Alarm Page and Demand Print. These descriptions can be changed depending on the channel type. E.g.: 'NORMAL-ALARM!', 'OFF-ON', 'AUS-EIN', 'ARRET-MARCHE', 'FERMA-IN MAR'. For each supported channel a selection can be made from the appropriate 16 user definable possibilities.

To setup the status text, open the corresponding folder in the Tree Area:

Be aware that Status Texts are divided into 5 Sets, and it's Set could be used configured at general settings of a processor.



Digital Input Alarm Channels Status Description

The colors and text strings of row Nr 1 is fixed. For row 2 - 16 text of normal (Default) and alarm (Active) status and of wire failure status can be changed. Colors can be modified, but advisable is that the default colors will be used. Any not acknowledged status appears in flashing red.

Digital Alarm Channels - status description						
Nr	Default	Active	Wire Fail			
1	Normal	Alarm!	SensFail			
2	Normal	Laag	SensFail			
3	Normal	Hoog	SensFail			
4	Normal	Storing	SensFail			
5	Normal	Overbelast	SensFail			
6	Normal	Gestopt	SensFail			
7	Normal	Aardfout	SensFail			
8	Normal	Alarm!	SensFail			
9	Normal	Alarm!	SensFail			
10	Normal	Alarm!	SensFail			
11	Normal	Alarm!	SensFail			
12	Normal	Alarm!	SensFail			
13	Normal	Alarm!	SensFail			
14	Normal	Alarm!	SensFail			
15	Normal	Alarm!	SensFail			
16	Normal	Alarm!	SensFail			

Digital Input / Output Status Channels Status Description

Text strings and color(s) of off (Default) and on (Active) status can be changed. Text of wire failure can be changed. For row 1 the text strings and colors are fixed as shown. Any not acknowledged wire failure status appears in flashing red. For the wire failure status the color can be modified, but advisable is that the default color will be used. (N.B.: wire failure applies to digital input channels only.)

Digital Status Channels - status description

Nr	Default	Active	Wire Fail		
1	Off	On	SensFail	Red	
2	—	Geopend	SensFail		
3	—	Gesloten	SensFail		
4	—	Start	SensFail		
5	—	Stop	SensFail		
6	—	Bedrijf	SensFail		
7	—	In bedrijf	SensFail		
8	—	Gereed	SensFail		
9	—	Actief	SensFail		
10	Uit	Aan	SensFail		
11	Off	On	SensFail		
12	Off	On	SensFail		
13	Off	On	SensFail		
14	Off	On	SensFail	Red	
15	Off	On	SensFail		
16	Off	On	SensFail	Red	

Analog and Pulse Input Alarm Channels Status Description

Row Nr 1 is fixed. For row 2 - 16 text of normal (Default), lower (Low) and higher (High) status and for sensor failure status can be changed. Colors can be modified, but advisable is that the default colors will be used. Any not acknowledged status appears in flashing red.

Analog Alarm Channels - status

Nr	Default	Low Status	High Status	Sensor Fail	
1	Normal	Alarm!	Alarm!	SensFail	Red
2	Normal	—	Laag	SensFail	Red
3	Normal	—	Hoog	SensFail	Red
4	Normal	Alarm!	Alarm!	SensFail	Red
5	Normal	Alarm!	Alarm!	SensFail	Red
6	Normal	Alarm!	Alarm!	SensFail	Red
7	Normal	Alarm!	Alarm!	SensFail	Red
8	Normal	Alarm!	Alarm!	SensFail	Red
9	Normal	Alarm!	Alarm!	SensFail	Red
10	Normal	Alarm!	Alarm!	SensFail	Red
11	Normal	Alarm!	Alarm!	SensFail	Red
12	Normal	Alarm!	Alarm!	SensFail	Red
13	Normal	Alarm!	Alarm!	SensFail	Red
14	Normal	Alarm!	Alarm!	SensFail	Red
15	Normal	Alarm!	Alarm!	SensFail	Red
16	Normal	Alarm!	Alarm!	SensFail	Red

Analog and Pulse Input Status Channels Status Description

Text and color of normal (Default), lower (Low) and higher (High) status can be changed. Text for sensor failure can be changed. For the sensor failure status the color can be modified, but advisable is that the default color will be used. Any not acknowledged sensor failure appears in flashing red.

Analog Status Channels - status

Nr	Default	Low Status	High Status	Sensor Fail	
1	Off	On	On	SensFail	
2	Off	On	On	SensFail	
3	Off	On	On	SensFail	
4	Off	On	On	SensFail	
5	Off	On	On	SensFail	
6	Off	On	On	SensFail	
7	Off	On	On	SensFail	
8	Off	On	On	SensFail	
9	Off	On	On	SensFail	
10	Off	On	On	SensFail	
11	Off	On	On	SensFail	
12	Off	On	On	SensFail	
13	Off	On	On	SensFail	
14	Off	On	On	SensFail	
15	Off	On	On	SensFail	
16	Off	On	On	SensFail	

Minimize command (application Control menu)

Use this command to reduce the PAL window to an icon.

Shortcut

Mouse: Click the minimize icon  on the title bar.

Keys: ALT+F9

System Parameters

To enable the Stores Pulse Counter you have to select the System Parameter Setup\ General Settings in the Tree Area:

System Parameters

- Clustering
 - 01 - AMS
- Diagnostics
 - General Texts
 - + X - 1000
 - + X - 1001
 - + X - 1010
- Display Conversion
- Engineering Units
- General Settings
- Horn - 1 (General)
- Horn - 2 (Additional)

The following setup window will be shown:

The screenshot shows a software interface for system parameter configuration. It includes two main sections: 'General' and 'Server Redundancy Settings'.

General

- Automatic acknowledge of channels:
- Redundant I/O-Server:
- Main Server - IP Address: 192 . 168 . 1 . 101
- Main Server - Port: 502
- Backup Server - IP Address: 192 . 168 . 1 . 102
- Backup Server - Port: 502

Server Redundancy Settings

- Server Switch Hold Time: 20 Sec
- Server Switch Delay Time: 2 Sec
- Server Switch Idle Time: 0 Sec
- Server Switch On Healthy Status Remote Data's:

General:

- Select 'Yes' for automatic acknowledgement of channels
- Check for Redundant I/O Server (for Maxi-Guard should be "off") and (for Mega-Guard should be "on")
- Main Server (Computer) IP Address and its Port
- Backup Server (Computer) IP Address and its Port

IP Address

An Internet Protocol address (IP address) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication.

An IP address serves two principal functions:

host or network interface identification and location addressing.

Its role has been characterized as follows:

"A name indicates what we seek. An address indicates where it is. A route indicates how to get there."

default for computer 192.168.1.101, (so-called IP version 4 Address)

Server Redundancy Settings:

Link Switch Hold Time:

- Hold time, time after a server performs a switch from active link to standby link or from standby link to active link. The server stays on that link for at least this certain time.

Link Switch Delay Time:

- Delay time before a server performs a switch from active link to standby link. Like when number of boards is on the standby link better as on the active link the server wants to switch. When this difference between active boards is reported the server waits this time before the server will switch. If before this time is exceeded the link is reported correctly the switch will not performed.

Link Switch Idle Time:

- Idle time, after a server has performed a switch from active to standby. The server waits this time before it sets itself to standby. This is done for giving other side some time to become active.

Special IOServer Functions :

Nr	Channel	Function
1	4101	Attended Input
2	4102	UnAttended Input
3	4103	GEA Input
4	4104	Reset Timer
5	4105	Reset GEA
6	4106	Key Switch Timer Off
7	4107	Acknowlegde Input
8	4108	Stop Horn
9	4109	Stop Horn 1
10	4110	Stop Horn 2
11	4111	Attended Output
12	4112	UnAttended Output
13	4113	Timer Expired
14	4114	GEA + Deadman Output
15	4115	Horn Output 1
16	4116	Horn Output 2
17	4117	Deadman Output
18	4118	GEA Output
19	4119	Timer On Output
20	4120	On Duty Selection

Channels could be connected with a function like Attended Input or GEA Input etc.

Every function could be used only once.

Toolbar



The toolbar is displayed across the top of the application window, below the menu bar. The toolbar provides quick mouse access to many tools used in PAL.

To hide or display the Toolbar, choose Toolbar from the View menu (ALT, V, T).

Click To

-  Open a new document.
-  Open an existing document. PAL displays the Open dialog box, in which you can locate and open the desired file.
-  Save the active document or template with its current name. If you have not named the document, PAL displays the Save As dialog box.
-  Remove selected data from the document and stores it on the clipboard.
-  Copy the selection to the clipboard.
-  Insert the contents of the clipboard at the insertion point.
-  Print the active document.
-  Shows About Dialogbox
-  Go to the first record in the current selection.
-  Go to the previous record in the current selection.
-  Go to the next record in the current selection.
-  Go to the last record in the current selection.

Groups, Trending

Trend Replay - Initial Values					
Trend Replay:	<input checked="" type="checkbox"/>	Timespan (hh - mm):	0	-	10
Trend Memory:	<input checked="" type="checkbox"/>	Sample Rate (ms):	500		High Limit: 100.5 Low Limit: -100.5

- **Trend Replay** Check box to turn on/off to do a trend replay of this group (use log file from disk)
- **Trend Memory** Check box to turn on/off to do a trend memory of this group (use RAM memory)
- **Sample Rate (ms)** number of samples in msec, this is used for trend memory only
- **Timespan (hh)** Time span hours (default is 0 hours)
- **Timespan (mm)** Time span minutes (default is 1 minute)
- **High Limit** Max. value which is to be displayed (default is 0)
- **Low Limit** Min. value which is to be displayed (default is 100)

When 'Trend Memory' is checked, 'Sample Rate' besides trend memory is shown.

This is used to store samples to memory which could be displayed.

These samples are stored in memory and will not be written to the disk.

When 'Trend Memory' is not checked, 'Sample Rate' besides trend memory is not shown.

Samples which are written to disk (in so-called log files) could be displayed.

How much samples and its rate is configured at Logging.

See also:

[Groups](#)

Print Progress Dialog

The Printing dialog box is shown during the time that <>YourApp>> is sending output to the printer. The page number indicates the progress of the printing.

To abort printing, choose Cancel.

Browse

By clicking the 'Browse' button a dialog box is coming up which allows the user a easy way to select a filepath and a filename.

Pal Help Index

How To ...

[How to Insert a Board](#)

[How to Insert the Ethernet Fieldbus](#)

[How to Insert a Conversion Table](#)

[How to Insert a Group](#)

[How to Delete a Board](#)

[How to Delete the Ethernet Fieldbus](#)

[How to Delete a Conversion Table](#)

[How to Delete a Group](#)

[How to Use Another Language](#)

[How does Show Changes work](#)

[How to get Current Version](#)

[How to Save Last Tree Item](#)

[How to Integrate a Navigation Light Panel with Mega-Guard](#)

[How to insert a TFT-57 with AFAS / CFFAS / BNWAS / WinWiper / NaviLight](#)

[How to Import database](#)

[How to use Japanese Language](#)

Menus

[File menu](#)

[Edit menu](#)

[Special menu](#)

[Help menu](#)

Frequently Used Items

[Ethernet Fieldbus](#)

[Board](#)

[Channels](#)

[Remote Data](#)

Edit menu commands

The Edit menu offers the following commands:

Cut Deletes data from the document and moves it to the clipboard.

Copy Copies data from the document to the clipboard.

Paste Pastes data from the clipboard into the document.

View menu commands

The View menu offers the following commands:

[Toolbar](#) Shows or hides the toolbar.

[Status Bar](#) Shows or hides the status bar.

Special menu commands

The Special menu offers the following commands:

Copy or Move Channel	Copy or Move the contents of channel into another channel.
Copy or Move Channel Range	Copy or Move the contents of channel range into another channel range.
Copy Board Range	Copy a board range with its reference to another board range
Change Eng. Units	Uniform your Engineering Unit Types
Clear Show Changes	Clears the contents of the show changes.
Correct Database	Correct your Channel vs Group configuration
Automatic Mimics Update	Insert all mimics from your mimic directory into the PAL
Save Last Tree Item	Save Last Tree Item when leaving the PAL

Help menu commands

The Help menu offers the following commands, which provide you assistance with this application:

[Help Topics](#) Offers you an index to topics on which you can get help.

[About](#) Displays the version number of this application.

File Open dialog box

The following options allow you to specify which file to open:

File Name

Type or select the filename you want to open. This box lists files with the extension you select in the List Files of Type box.

List Files of Type

Select the type of file you want to open:

- mdb (Database Files)

Drives

Select the drive in which PAL stores the file that you want to open.

Directories

Select the directory in which PAL stores the file that you want to open.

Network...

Choose this button to connect to a network location, assigning it a new drive letter.

Undo/Can't Undo command (Edit menu)

Use this command to reverse the last editing action, if possible. The name of the command changes, depending on what the last action was. The Undo command changes to Can't Undo on the menu if you cannot reverse your last action.

Use the Esc – Key to undo a edit action to a input control.

Shortcuts

Toolbar: 

Keys: CTRL+Z or

ALT-BACKSPACE

Cut command (Edit menu)

Use this command to remove the currently selected data from the document and put it on the clipboard. This command is unavailable if there is no data currently selected.

Cutting data to the clipboard replaces the contents previously stored there.

Shortcuts

Toolbar: 

Keys: CTRL+X

Copy command (Edit menu)

Use this command to copy selected data onto the clipboard. This command is unavailable if there is no data currently selected.

Copying data to the clipboard replaces the contents previously stored there.

Shortcuts

Toolbar: 

Keys: CTRL+C

Paste command (Edit menu)

Use this command to insert a copy of the clipboard contents at the insertion point. This command is unavailable if the clipboard is empty.

Shortcuts

Toolbar: 

Keys: CTRL+V

New command (Window menu)

Use this command to open a new window with the same contents as the active window.

1. 2, ... command (Window menu)

PAL displays a list of currently open document windows at the bottom of the Window menu. A check mark appears in front of the document name of the active window. Choose a document from this list to make its window active.

Index command (Help menu)

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using PAL and various types of reference information.

Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

Using Help command (Help menu)

Use this command for instructions about using Help.

Title Bar



The title bar is located along the top of a window. It contains the name of the application and document.



To move the window, drag the title bar. Note: You can also move dialog boxes by dragging their title bars.

A title bar may contain the following elements:

- Application Control-menu button (click on icon)
- Maximize button
- Minimize button
- Name of the application
- Restore button

Scroll bars

Displayed at the right and bottom edges of the document window. The scroll boxes inside the scroll bars indicate your vertical and horizontal location in the document. You can use the mouse to scroll to other parts of the document.

Size command (System menu)

Use this command to display a four-headed arrow so you can size the active window with the arrow keys.



After the pointer changes to the four-headed arrow:

1. Press one of the DIRECTION keys (left, right, up, or down arrow key) to move the pointer to the border you want to move.
2. Press a DIRECTION key to move the border.
3. Press ENTER when the window is the size you want.

Note: This command is unavailable if you maximize the window.

Shortcut

Mouse: Drag the size bars at the corners or edges of the window.

Move command (Control menu)

Use this command to display a four-headed arrow so you can move the active window or dialog box with the arrow keys.



Note: This command is unavailable if you maximize the window.

Shortcut

Keys: CTRL+F7

Maximize command (System menu)

Use this command to enlarge the active window to fill the available space.

Shortcut

Mouse: Click the maximize icon  on the title bar; or double-click the title bar.

Keys: CTRL+F10 enlarges a document window.

Close command (Control menu)

Use this command to close the application.

Double-clicking a Control-menu box is the same as choosing the Exit command.



Shortcuts

Keys: ALT+F4 closes the Application

Restore command (Control menu)

Use this command to return the active window to its size and position before you chose the Maximize or Minimize command.

Modifying the Document

Adjust an item the right pane.

No Help Available

No help is available for this area of the window.

No Help Available

No help is available for this message box.

Status Bar command (View menu)

Use this command to display and hide the Status Bar, which describes the action to be executed by the selected menu item or depressed toolbar button, and keyboard latch state. A check mark appears next to the menu item when the Status Bar is displayed.

See [Status Bar](#) for help on using the status bar.

Toolbar command (View menu)

Use this command to display and hide the Toolbar, which includes buttons for some of the most common commands in PAL, such as File Open. A check mark appears next to the menu item when the Toolbar is displayed.

See [Toolbar](#) for help on using the toolbar.

Pulse Input, Up- / Down Counter (Item Channels, ETH-FB, Proc, I/O-Module, Channels)

For the fields which are in common see [Channels, Pulse Input](#).

Pulse Input used as Up- / Down Counter

Pulse input channels can be used as an Up- Down counter. The UP or DOWN detection is realized via the phase shift of two pulse inputs (channel02 and channel 03) and is automatically setting the count direction.

Pulse / Scan:

- Enter a value between 1 and 3000 to indicate the number of pulses to be counted to set the output to 100% of the range. During counting the output will be equal to:
- $$\frac{\text{Countervalue}}{\text{Pulse/Scan}} \times \text{Range} = \text{Output}$$

Range:

- Range limit for the output value.

Start Count:

- 0=NONE, 1=UP, 2=DOWN

This field can be set to 'UP' to start the counter by the detection of up counting (internal bit, see above). If this field is set to 'DOWN' the counter will start counting by the detection of the status down counting (internal bit, see above). If NONE is selected, then the counting is automatically enabled.

Stop Count:

- 0=NONE, 1=UP, 2=DOWN

This field can be set to 'UP' to stop the counter by the detection of up counting (internal bit, see above). If this field is set to 'DOWN' the counter will stop counting by the detection of the status by down counting (internal bit, see above). If NONE is selected, then the counting is never stopped.

Reset Count:

- 0=NONE, 1=UP, 2=DOWN

This field can be set to 'UP' to reset the counter by the detection of up counting (internal bit, see above). If this field is set to 'DOWN' the counter will reset counting by the detection of the status by down counting (internal bit, see above). If NONE is selected, then the counter is never reset.

Direction Channel:

- a) if it's an external channel, the value of the channel sent to I/O-Module during runtime which gives the direction.
- b) if it's a local channel on I/O-Module, represents the index of a virtual input channel which is used to send direction information.

Direction Channel direction:

- 0=EXTERN, 1=INTERN
- EXTERN - external channel used to control up/down direction
- INTERN - the up/down direction is detected by I/O-Module base of phase shift between paired inputs

Remarks:

- a) The direction of counting (up or down) is determined either by an external channel (channel value must be sent on-change to I/O-Module during runtime) or by the "phase shift" between main and paired signals and is evaluated using the following rule: "in interrupt mode, on falling edge of main signal if the level of paired signed is 1 then direction is UP (ahead), otherwise is DOWN (astern)".
- b) The UpDownCounter value is clamped to \pm Range, if necessary.
- c) The sensfail condition can be enabled & evaluated only for paired Up/Down counters. If enabled, the sensfail condition is evaluated as follows:
"if the difference between UpDownCounter value of main channel and UpDownCounter value of paired channel,

normalized to the bigger value between them, is more than 5% for more than 2s in a row, then there will be sensfail".

Product Groups

After selecting 'Product Groups'

Nr	Tag	Start ID	End ID
1	AMS	1	20
2	CCMS	21	32
3	MGPanels	33	48
4	BMS/PCS	49	55
5	DP	56	60
6	PMS	61	75
7	EAS	76	99
8			
9			
10			

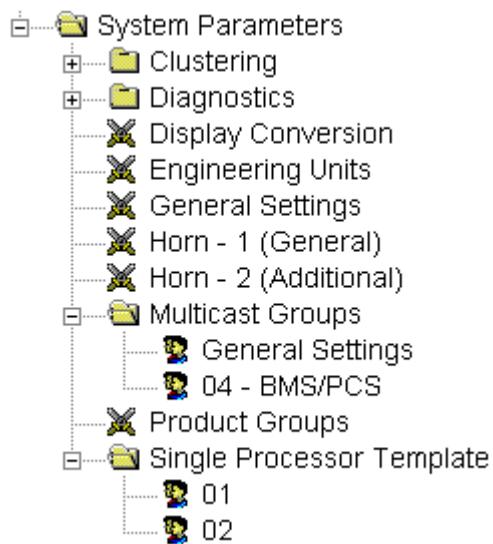
Tag text for describe or name of this product range

Start ID Processor Number start from this range

End ID Processor Number end to this range

Processor Number (ID) is connect to IPAddress 192.168.1.XX

See Also: [Processor Position Table](#)



Place: System Parameters\

Multicast Groups

After selecting 'Multicast Groups'

Group Number:	04
Description:	BMS/PCS
IP Address:	239 . 255 . 239 . 196
Port:	502

Add/Delete Processors

Type:	Processor	Rx/Tx	Sort	Add
Processor:			Delete	
31 - (31) IO "SPEED" Rx/Tx 32 - (32) IO "STEER" Rx/Tx 33 - PANELS Rx/Tx 34 - PANELS Rx/Tx 35 - PANELS Rx/Tx 36 - PANELS Rx/Tx 37 - PANELS Rx/Tx 38 - PANELS Rx/Tx				

Add add a certain group to this multicast

Delete delete a certain group from this multicast

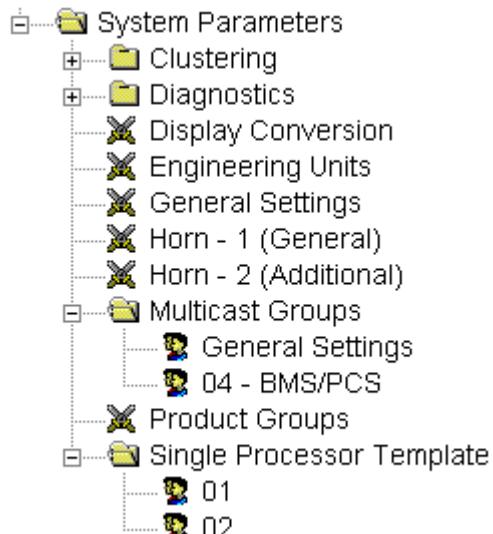
Sort sort all groups from this multicast

IP multicast is a technique for one-to-many communication over an IP infrastructure in a network.

The destination nodes send join and leave messages.

Multicast uses network infrastructure efficiently by requiring the source to send a packet only once, even if it needs to be delivered to a large number of receivers.

The nodes in the network take care of replicating the packet to reach multiple receivers only when necessary.
The most common transport layer protocol to use multicast addressing is User Datagram Protocol (UDP).



Place: System Parameters\

Multicast Groups - General Settings

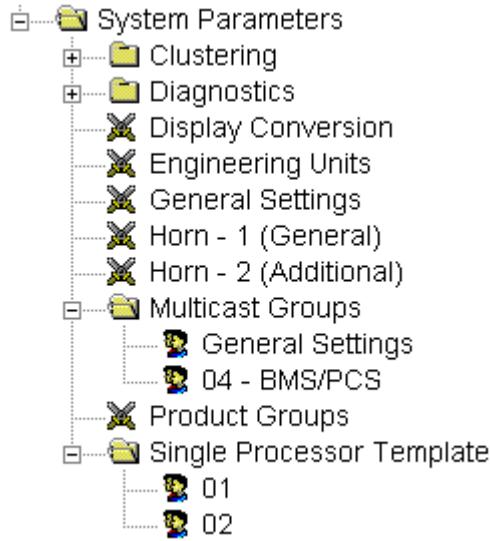
After selecting 'General Settings'

Create All Multicast Groups

Create All Remote XP List

Create All Multicast Groups *WARNING: press only this button when you don't have any multicast groups! Your current multicast configuration will be deleted.*

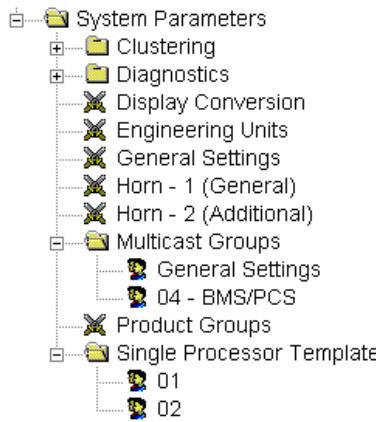
Create All Remote XP List Rebuild all Remote XP Lists in the configuration



Place: System Parameters\

Single Processor Template

After selecting 'Single Processor Template'



Place under 'System Parameters'

This dialog box contains the following fields:

- Number:** A text input field containing '01'.
- Copy XML File:** An unchecked checkbox.
- Include Compiled Files:** A checked checkbox.
- Copy Visualization-XML File:** An unchecked checkbox.
- Include Compiled Files:** A checked checkbox.

Below these fields is a section titled 'Add/Delete Processors' with the following controls:

- Type:** A dropdown menu set to 'Processor'.
- Processor:** A dropdown menu listing processor types: '33 - TFT - PANELS', '34 - TFT - PANELS', '35 - TFT - PANELS', '36 - TFT - PANELS', '37 - TFT - PANELS', and '38 - TFT - PANELS'.
- Sort:** A button.
- Add:** A button.
- Delete:** A button.

Copy XML File when using this Template, XML file is same for all processors,
except for processor number reference

Include Compiled Files includes all files which are generated by compiling the XML file

Copy Visualization-XML File when using this Template, Visual-XML file is same all processors
except for processor number reference

Include Compiled Files includes all files which are generated by compiling the Visual-XML file

Add Add a certain Processor to this Template

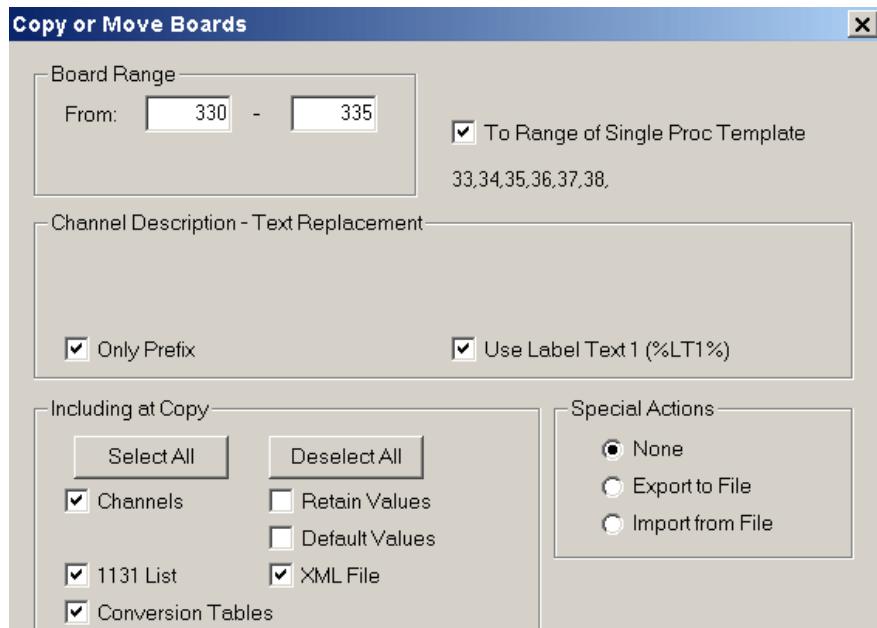
Delete Delete a certain Processor from this Template

Sort Sort all Processors in this Template

Where can I use this Processor Template:

<input type="checkbox"/> CycleTime-out (ms):	100	Check Size	<input type="checkbox"/> Copy to Others			
 Use Local Channel Numbering	<input type="checkbox"/>	Start PAL 1131	Single Proc Template			
Number of items used: 513		<input type="checkbox"/> Check List	<input type="checkbox"/> Create All Remote XP List			
			33,34,35,36,37,38,			
Nr	Channel	Description	Dir	Variable	Type	Use 1131
1	33012	OUTPUT - BUZZER	<=	BUZZER	BOOL	<input checked="" type="checkbox"/>
2	33013	OUTPUT - HORN (= LAMPTEST)	<=	EXT_LAMPTEST	BOOL	<input checked="" type="checkbox"/>
3	33015	OUTPUT - FAILURE	<=	LED_SYSTEM_FAIL	BOOL	<input checked="" type="checkbox"/>
4	33016	OUTPUT - O.C. (=LAMPTEST)	<=	EXT_LAMPTEST2	BOOL	<input checked="" type="checkbox"/>
5	33017	OUTPUT - PWM	<=	EXT_DIM	FINT	<input checked="" type="checkbox"/>

or you could use it with:



TFT - General Menu

After selecting 'General Menu'

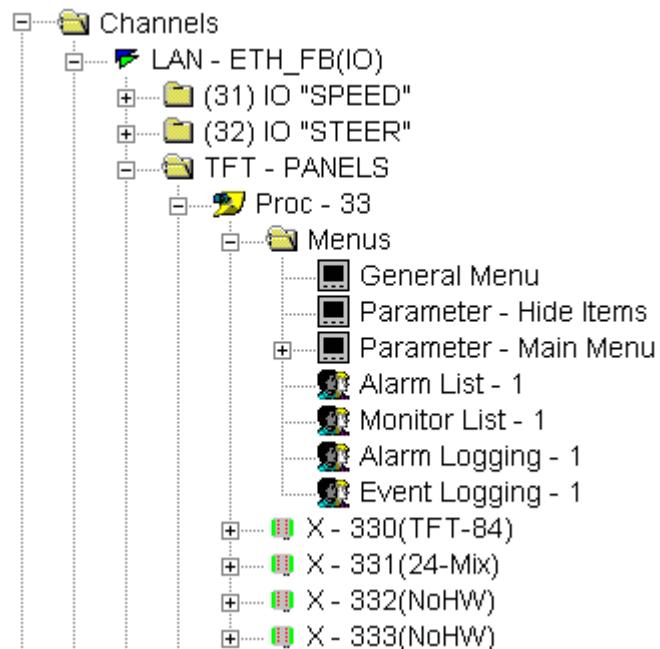
Nr	Page	Description	StartUp
1	Parameter List	PARAMETER LIST	<input type="checkbox"/>
2	Alarm List	ALARM LIST	<input checked="" type="checkbox"/>
3	Monitor List	MONITOR	<input type="checkbox"/>
4	Alarm Logging	ALARM	<input type="checkbox"/>
5	Event Logging	EVENT	<input type="checkbox"/>
6			<input type="checkbox"/>
7			<input type="checkbox"/>

Page Type of Page, like 'Alarm List', or 'Monitor List', 'Parameter Menu' etc.

Description text for page description, comments only

StartUp not implemented yet, intend to select the first page on LCD Panel (this is not for TFT Panel)

after changing this item, treeview items will be updated.



Place: Channels, ETH_FB, Proc, Menus

TFT - Hide Items

After selecting 'Hide Items'

Nr	Name	Formula	Comments
1	LEVEL_0	33094 AND NOT 33095 AND NOT 33096	ZF CONFIG
2	LEVEL_1	NOT 33094 AND 33095 AND NOT 33096	ZF PARAM
3	LEVEL_2	NOT 33094 AND NOT 33095 AND 33096	CREW
4	PASSWORD	31395 OR 31396 OR 31397 OR 31398	PW STORAGE CHAN
5			

For hide and show items at parameter menus at certain 'levels' (formulas)

Name name for hide item

Formula Create your formula with "AND", "OR", "NOT" and digital channel numbers

Comments text field for documentary only

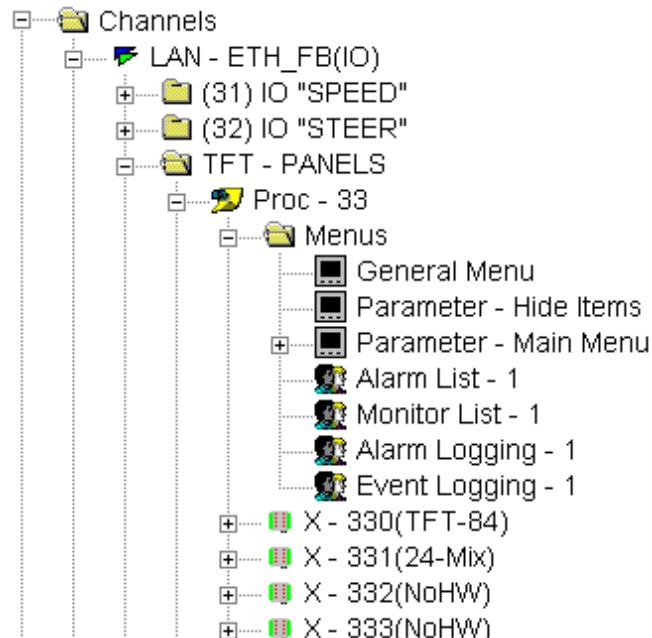
Remark: when using last item for 'PASSWORD' it stores a list where password is stored.

Inside channel value which is normally retain value, example: '31395 OR 31396 OR 31397'

31395 - Level 0

31396 - Level 1

31397 - Level 2



Place: Channels, ETH_FB, Proc, Menus

TFT/LCD - Parameter Main Menu

After selecting 'Parameter - Main Menu'

Nr	Description	Alt. Description	Level
1	EQUIPMENT CONFIGURATION		
2	PANEL INDICATIONS / BEHAVIORS		
3	LEVER/SENSOR CALIBRATIONS		
4	START/STOP		
5	STEERING CONTROLLER		
6	HYDRAULIC CONTROL		
7	LIFTING CONTROL		
8			
9	GENERAL SETTINGS		
10			
11			

For entering to a TFT/LCD menu a password/login screen will be appear.

After giving the correct password the menu-items will be shown.

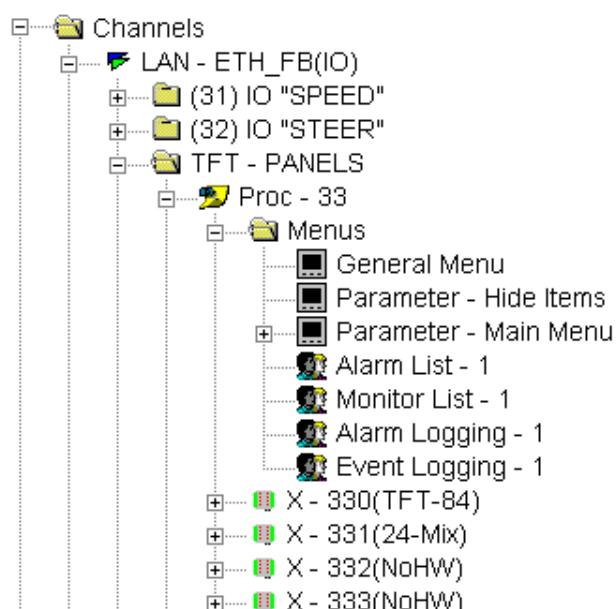
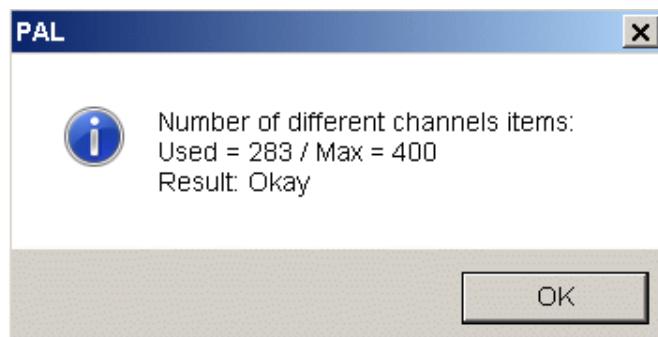
Description text for naming a main menu-item

Alt. Description text for naming (alternative language) a main menu-item

Level for show and hide menu-items

Check Size a button, when pressing this button, a validation check is done.

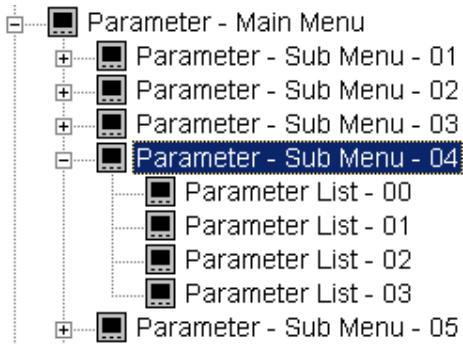
It will count number of channels used inside this menu.



Place: Channels, ETH_FB, Proc, Menus

TFT/LCD - Parameter Sub Menu

After selecting 'Parameter - Sub Menu'



4. START/STOP

Nr	Description	Alt. Description	Level
0			
1	PUSH BUTTON DELAYS		
2	STEERING START/STOP		
3	PROPULSION START/STOP		
4			
5			

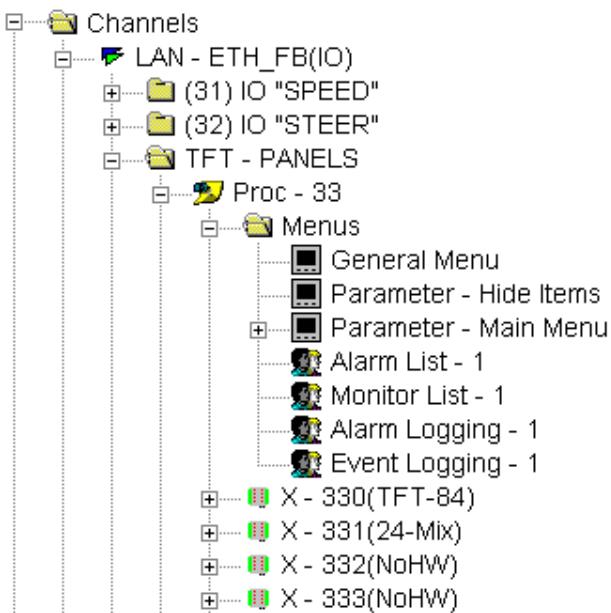
For entering to a TFT/LCD menu a password/login screen will be appear.

After giving the correct password the menu-items will be shown.

Description text for naming a sub menu-item

Alt. Description text for naming (alternative language) a sub menu-item

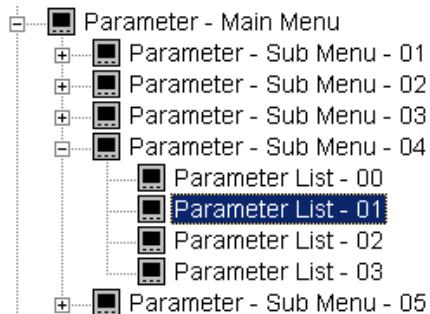
Level for show and hide menu-items



Place: Channels, ETH_FB, Proc, Menus

TFT/LCD - Parameter List

After selecting 'Parameter List'



A list of channels configured at a certain submenu.

4.1 START/STOP - PUSH BUTTON DELAYS

Number of items used: 283

Nr	Channel	Description	Alt. Description	Level
1	31150	OVERRIDE PROTECTION BUTTON DELAY		
2	31151	NAUTICAL STOP BUTTON DELAY		
3	31152	START BUTTON DELAY		
4	31153	STOP BUTTON DELAY		
5				

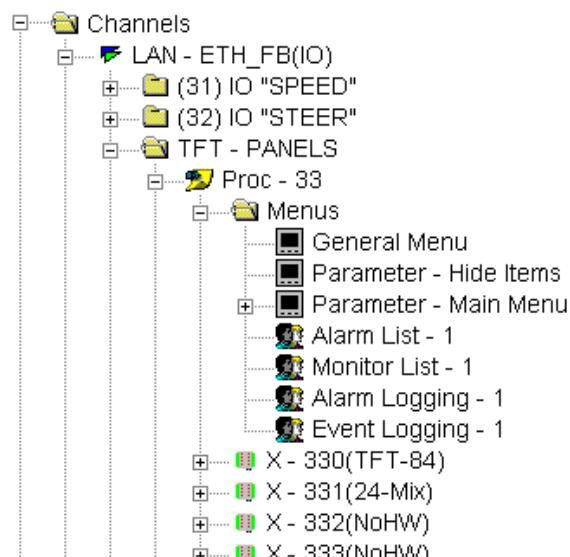
For entering to a TFT/LCD menu a password/login screen will be appear.
After giving the correct password the menu-items will be shown.

Channel insert/add Channel number to make it an item of this sub-menu

Description For showing the Channel description

Alt. Description For showing the Channel description, alternative language

Level for show and hide menu-items



Place: Channels, ETH_FB, Proc, Menus

TFT - Alarm List

After selecting 'Alarm List'

Nr	Page	Object	ID	Variable	Type
1	0	Group	10	ALM_GRP_1	BOOL
2	0	Group	11	ALM_GRP_2	BOOL
3	0	Group	12	ALM_GRP_3	BOOL
4	0	Group	13	ALM_GRP_4	BOOL
5	0	Group	14	ALM_GRP_5	BOOL
6					

A configurable Alarm List is only applicable for TFT and not for LCD-Panel.
LCD-Panel has it's fix Alarm List which contains all alarms of that LCD-Panel.

Use Remote Status Check box to turn on/off to use external channels status;
not local channels, channels from other processor

Use External Alarm List Check box to turn on/off to use external alarm list
This kind of Alarm List is sent from the Camclient/IOServer.

Add/Sort/Delete Buttons to insert/delete groups which needed to be in this Alarm List

a configure grid to connect PAL-1131 variables to groups which are setupped to this Alarm List

Page which page in PAL-1131G the alarm list shown

Object Here always Group

ID Group Number

Variable 1131 Variable to connect to this group

Type Type of Variable, normally BOOL

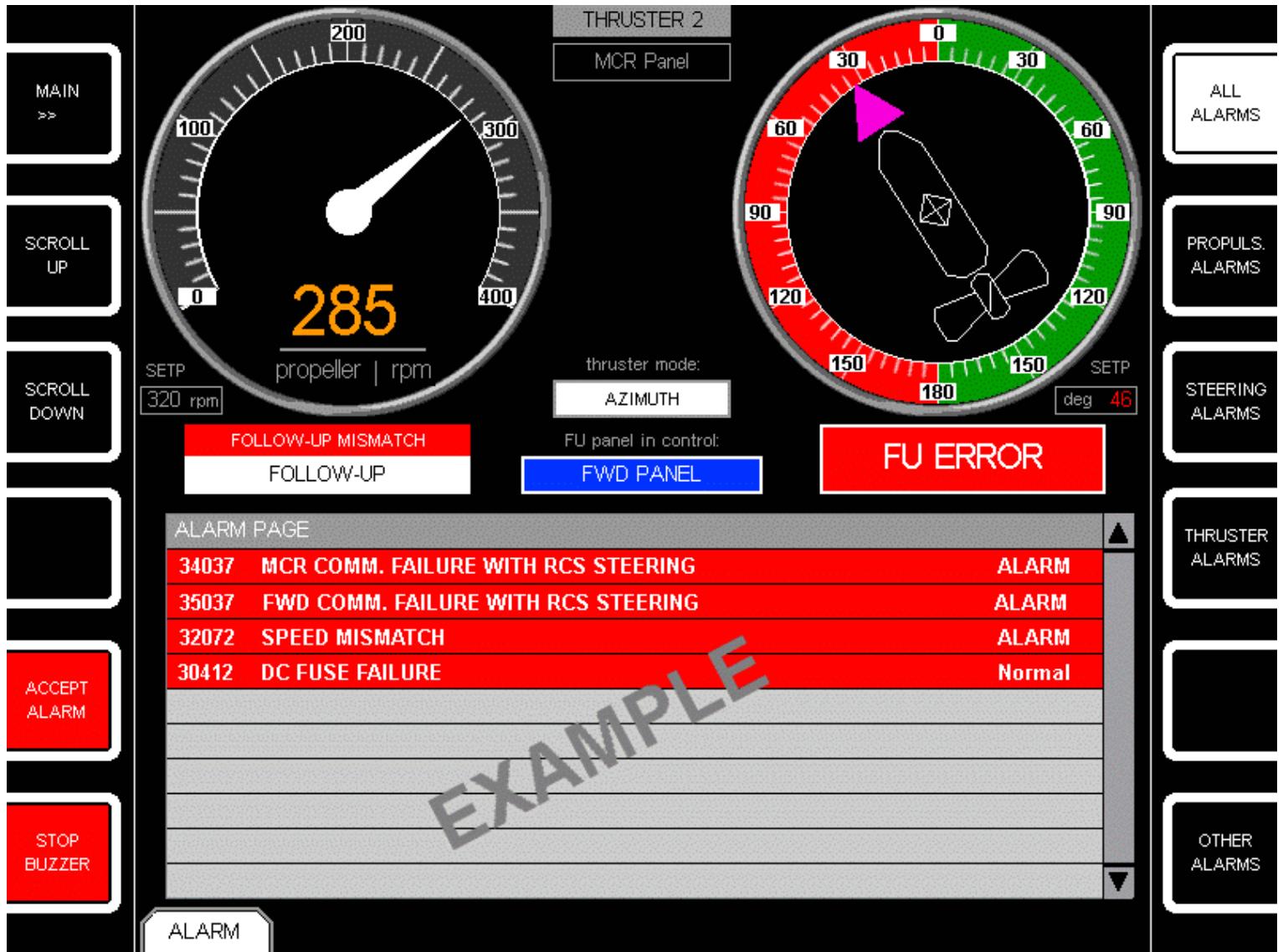
Example screenshot from a TFT-8.4 - Alarm List:

Variables filled into the grid, where used for display a single group only, of this Alarm List.

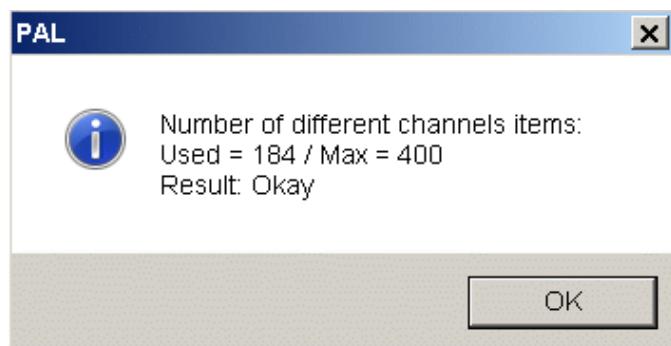
Pressing on "OTHER ALARMS" TFT-Button, which is corresponding to Group - 14 and

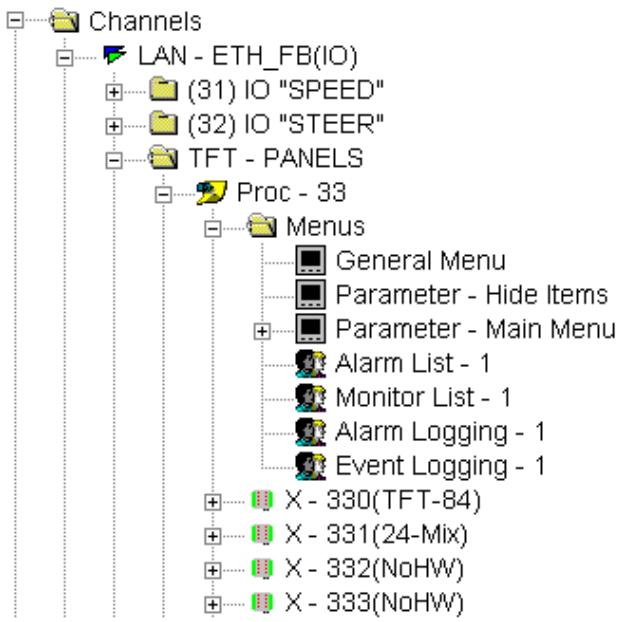
Variable ALM_GRP_5 should be made active by PAL-1131 program

Then only the current alarms of Group 14 will be shown.



Check Size a button, when pressing this button, a validation check is done.
It will count number of channels used inside this alarm list.





Place: Channels, ETH_FB, Proc, Menus

TFT - Monitor List

After selecting 'Monitor List'

The screenshot shows the 'TFT - Monitor List' configuration window. At the top, there are two checkboxes: 'Use Remote Status' and 'Use External Alarm List', both currently unchecked. To the right of these is a button labeled 'Check Size'. Below these checkboxes is a section titled 'Add/Delete Groups' with a dropdown menu set to 'Group'. This section includes a 'Sort' button, an 'Add' button, and a 'Delete' button. To the left of the 'Add/Delete Groups' section is a large, empty rectangular area labeled '15 - LIFTING'. At the bottom of the window is a table with the following columns: Nr, Page, Object, ID, Variable, and Type. The table contains two rows, both of which are currently empty.

Nr	Page	Object	ID	Variable	Type
1					
2					

A configurable Monitor List is only applicable for TFT and not for LCD-Panel.
LCD-Panel has no Monitor List at all.

Use Remote Status Check box to turn on/off to use external channels status;
not local channels, channels from other processor

Use External Alarm List Check box to turn on/off to use external alarm list
This item is not applicable to Monitor List.

Add/Sort/Delete Buttons to insert/delete groups which needed to be in this Monitor List

a configure grid to connect PAL-1131 variables to groups which are setup to this Monitor List

Page which page in PAL-1131G the alarm list shown

Object Here always Group

ID Group Number

Variable 1131 Variable to connect to this group

Type Type of Variable, normally BOOL

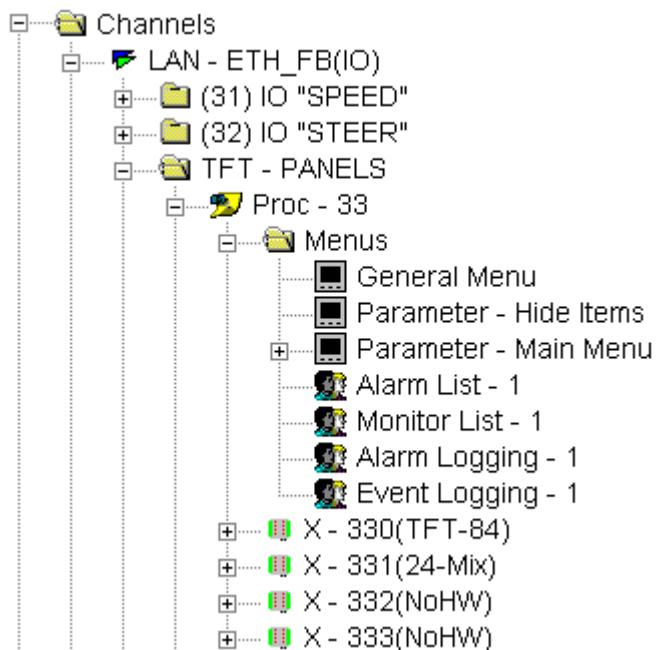
Check Size a button, when pressing this button, a validation check is done.
It will count number of channels used inside this list.

PAL



Number of different channels items:
Used = 184 / Max = 400
Result: Okay

OK

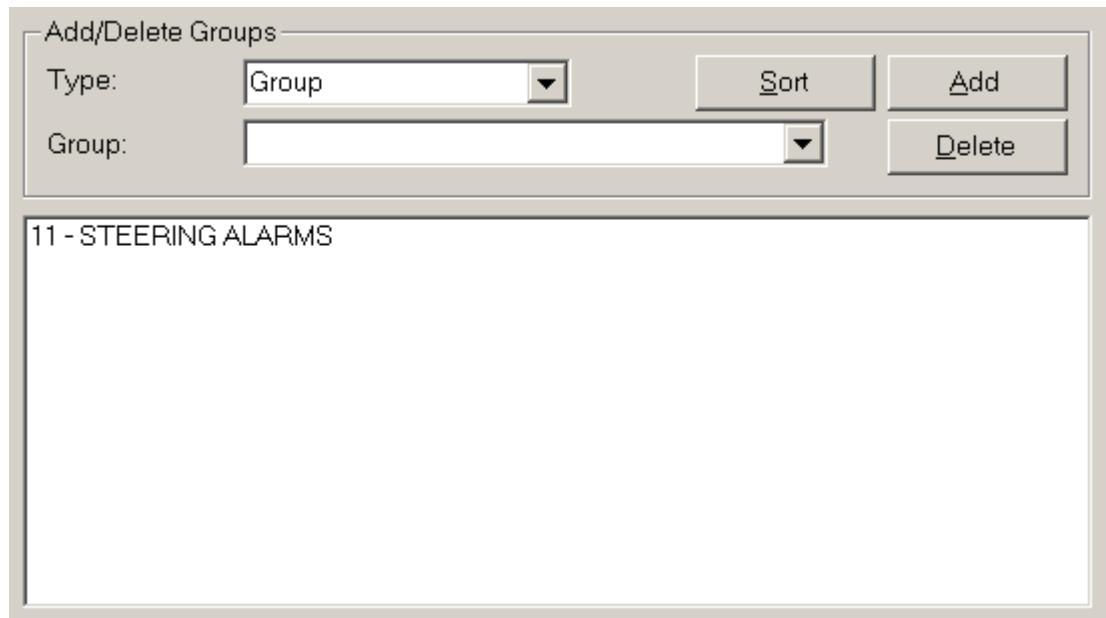


Place: Channels, ETH_FB, Proc, Menus

TFT - Alarm Logging

After selecting 'Alarm Logging'

The 8.4" TFT Panel has an alarm and event data logger with real-time time stamping for maintenance purposes. The logged data is stored in the internal non-volatile flash memory of this operator panel. The logged data can be retrieved via Ethernet using the Firmware Installer tool.



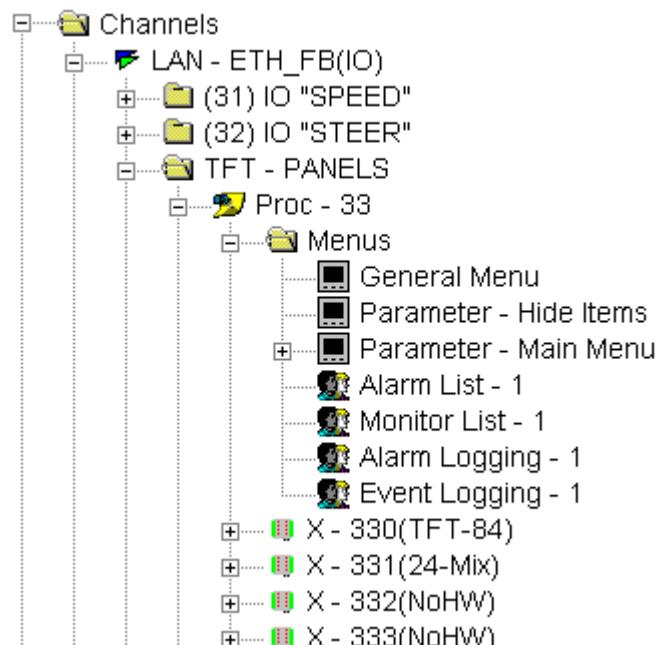
Alarm Logging is only applicable for TFT and not for LCD-Panel.
LCD-Panel has no Alarm Logging at all.

Add/Sort/Delete Buttons to insert/delete groups which needed to be in this Alarm Logging

All alarms of group are logged on the TFT panel.

For every alarm three events can be logged:

- (1) when the alarm is activated
- (2) when the alarm input condition returns to normal
- (3) where applicable, if the sensor is failed.

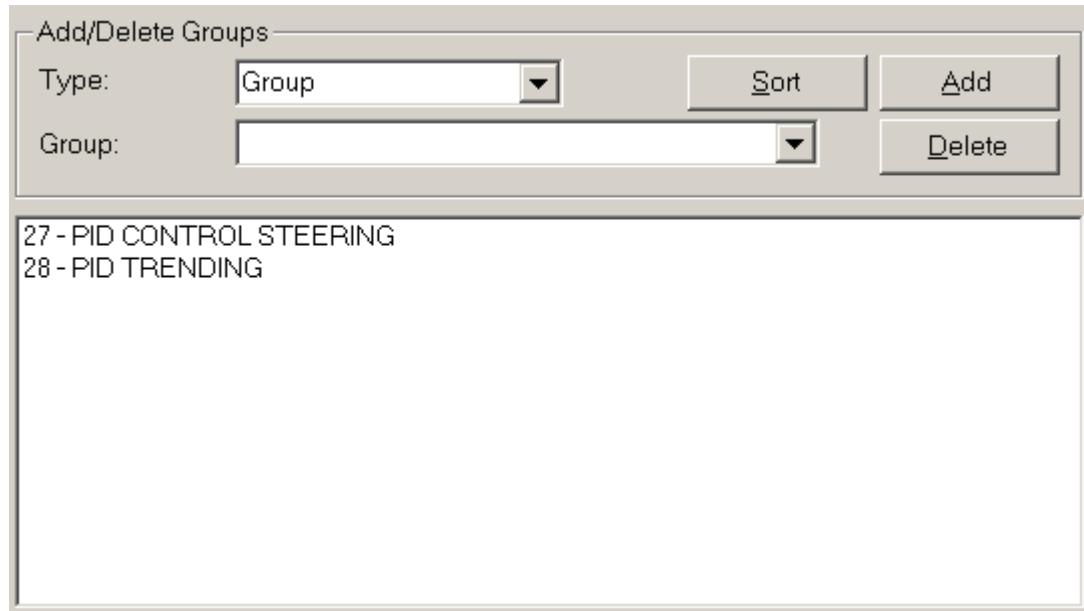


Place: Channels, ETH_FB, Proc, Menus

TFT - Event Logging

After selecting 'Event Logging'

The 8.4" TFT Panel has an alarm and event data logger with real-time time stamping for maintenance purposes. The logged data is stored in the internal non-volatile flash memory of this operator panel. The logged data can be retrieved via Ethernet using the Firmware Installer tool.



Event Logging is only applicable for TFT and not for LCD-Panel.
LCD-Panel has no Event Logging at all.

Add/Sort/Delete Buttons to insert/delete groups which needed to be in this Event Logging

The events of the signals are logged on the TFT panel.

Signal events that can be logged are:

Digital, on status channel:

- Rising Edge
- Falling Edge
- Either of the above

Analog:

- A value is changed above or below a certain deviation
- Time (periodic log, if deviation is set to zero, simply store with time intervals)

The images below including the following explanations will explain the functionality.

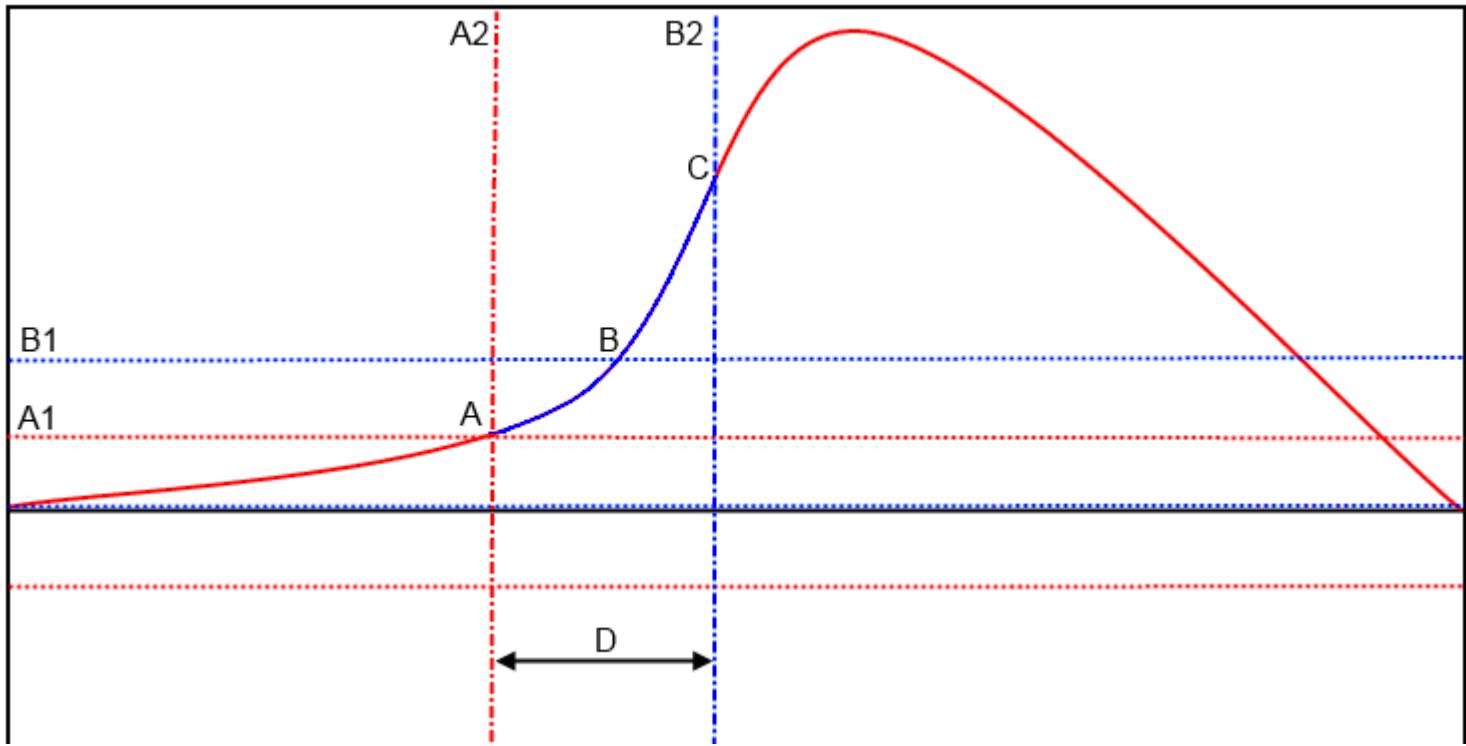
The image (Rising value event) shows an analog value (Y-axis) which is changing over time (X-axis).

At point A, the first event is being logged because the value exceeds the preset deviation (A1).

The time and date (A2) are being logged along with the current value.

At point B you can see the value is exceeding the preset deviation (B1) again.

This time it is not logged until point C, this is because the minimum event timeout (D) has not exceeded yet.



Rising value event

The image (Rising and dropping value event) shows an analog value (Y-axis) which is changing over time (X-axis). Another situation would be a rising and dropping value within the minimum event timeout (D).

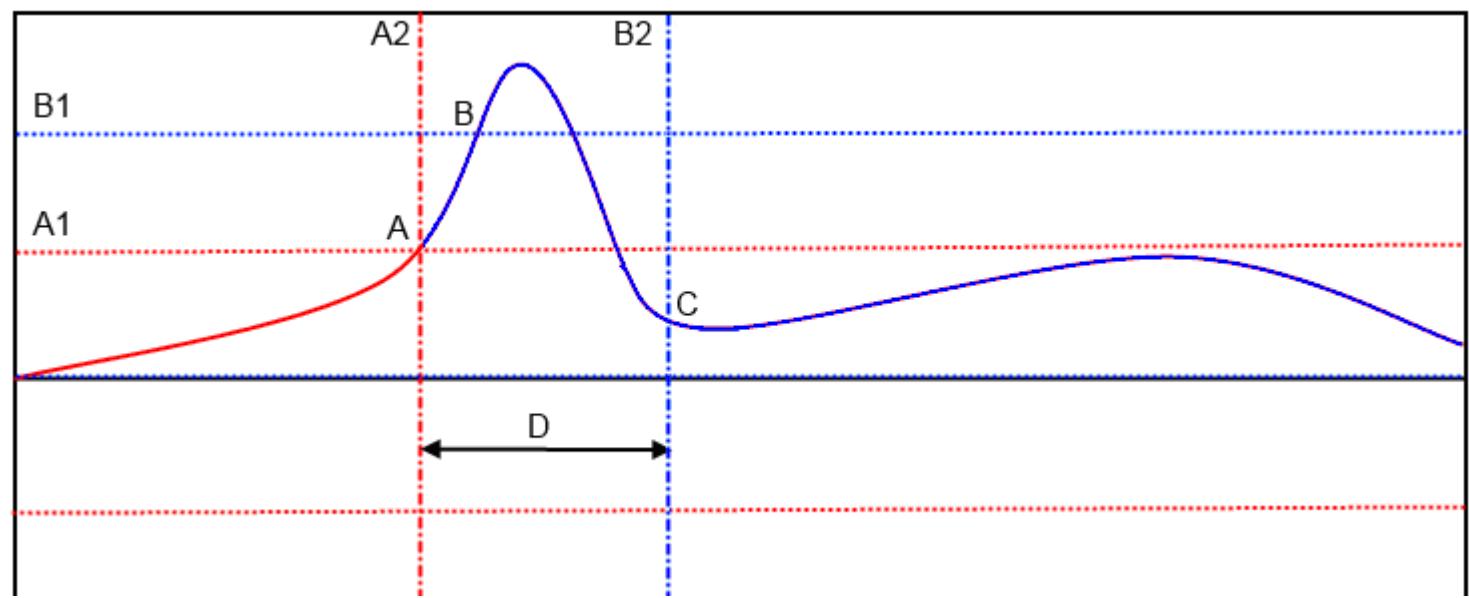
At point A, the first event is being logged because the value exceeds the preset deviation (A1).

The time and date (A2) are being logged along with the current value.

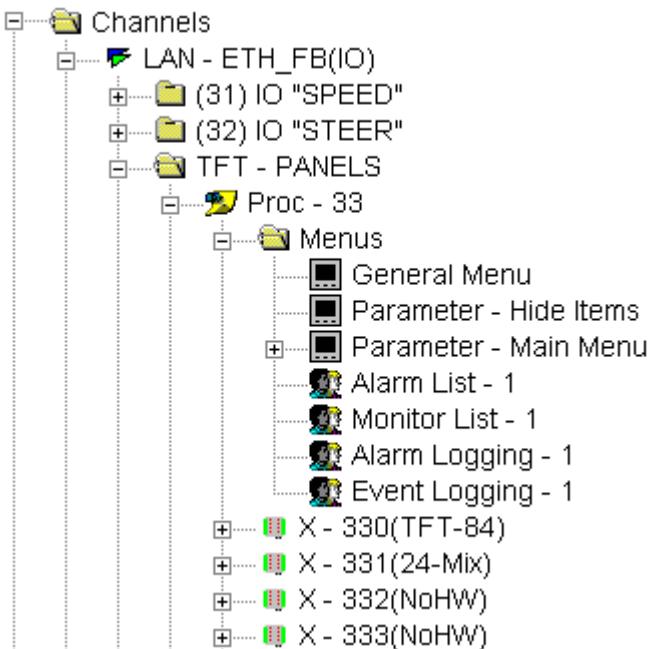
At point B you can see the value is exceeding the preset deviation (B1) again.

This time however the value drops again and remains within the preset deviation (B1).

At point C, when the minimum event timeout has exceeded the value is within the preset deviation value (B1) and no new event is being logged.



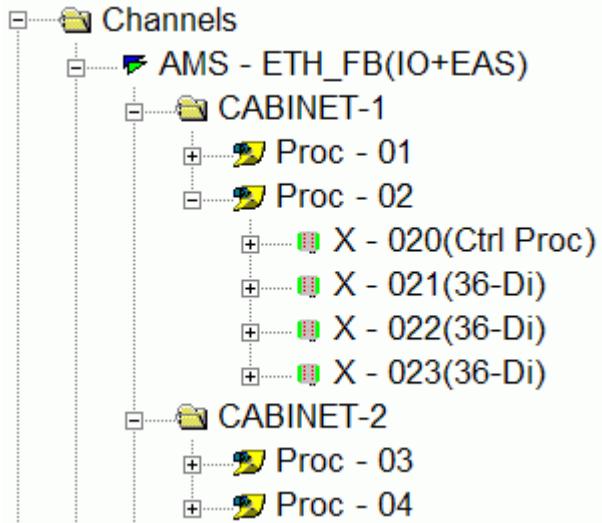
Rising and dropping value event



Place: Channels, ETH_FB, Proc, Menus

Channel Cross Reference List

Location of these settings is in the tree area just below 'Channels', see the following image of the tree area:



By selecting one of the I/O Processors the setup area will show the information that can be configured to local processor:

Create List - Remote XP List press button to re-create list for this processor

[Create List - Remote XP List](#)

- 32260 STEERING START PULSE TIME		
33	Parameter Menu - 4.2	Multicast - 04
34	Parameter Menu - 4.2	Multicast - 04
35	Parameter Menu - 4.2	Multicast - 04
36	Parameter Menu - 4.2	Multicast - 04
37	Parameter Menu - 4.2	Multicast - 04
38	Parameter Menu - 4.2	Multicast - 04
- 32261 STEERING STOP TIME-OUT		
33	Parameter Menu - 4.2	Multicast - 04
34	Parameter Menu - 4.2	Multicast - 04
35	Parameter Menu - 4.2	Multicast - 04
36	Parameter Menu - 4.2	Multicast - 04
37	Parameter Menu - 4.2	Multicast - 04
38	Parameter Menu - 4.2	Multicast - 04
- 32262 STEERING STOP PULSE TIME		
33	Parameter Menu - 4.2	Multicast - 04
34	Parameter Menu - 4.2	Multicast - 04
35	Parameter Menu - 4.2	Multicast - 04
36	Parameter Menu - 4.2	Multicast - 04

[Create List](#)

RxTx List Proc Range:

[Create List](#)

Tx Properties List for I/OBoard:

- 32102 THRUSTER POSITION FEEDBACK 1	
Direction Channel	32130
- 32103 Up/Down counter	
Direction Channel	32130

The Remote XP list is needed for channel communication between processors.

For Example, other channel

TxProperties List for I/O-Module is a channel list. These channels are not available on the I/O-Module (local).

The screenshot shows a channel 2 (32102) which is on the I/O-Module (1-24 channels) and channel 30 (32130) which is a virtual channel.

The virtual channel data must sent from XP Processor to I/O Module.

Shortcuts

Icon:

1131G Object List

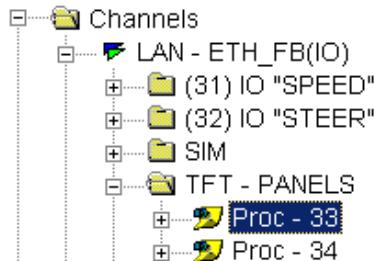
After selecting '1131G Object List'

General Settings Miscellaneous Table Board Diagnostics Channel Cross Reference List 1131 Reference List 1131G Object List					
Create					
Nr	Page	Object	ID	Variable	Type
1	0	Button	11	PB_0011_ALARM	BOOL
2	0	Button	12	PB_0012_STOP_BUZZER	BOOL
3	0	Button	2	PB_0002_TRAN_MAN	BOOL
4	0	Button	7	PB_0007_PDE	BOOL
5	0	Button	8	PB_0008_PEM	BOOL
6	0	Button	9	PB_0009_GB_CPP	BOOL
7	0	Button	10	PB_0010_MSR_PCU	BOOL
8	0	Button	3	PB_0003_NS	BOOL
9	0	Button	4	PB_0004_PDE	BOOL
10	0	Button	5	PB_0005_PEM	BOOL
11	0	Button	6	PB_0006_TRAIL	BOOL
12	0	Button	1	PB_0001_BRIDGE_MCR	BOOL
13	1	Button	1	PB_0101_ALARM1	BOOL
14	1	Button	4	PB_0104_ALARM4	BOOL

This Item is only for TFT Panels.

Object List of PAL-1131G, which is created by looking inside the Visual-XML file.

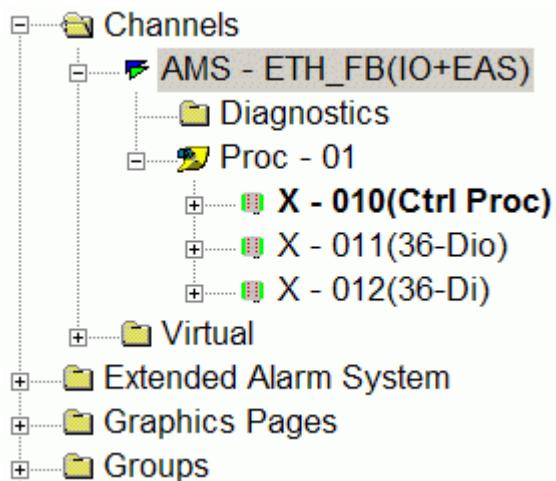
Create re-create the object list again



Place: Channels, ETH_FB, Proc

How to Integrate a Navigation Light Panel with Mega-Guard

To do that go to the [Processor Position Table](#). Which can be found at:



Next insert Navigation Light Panel with μP 33

This screenshot shows the 'Processor Position Table' tab of a configuration dialog. The table has columns for Group, μP, Panel, and SwID. A dropdown menu is open over the 'Panel' column for the first row, which is assigned to group 'MG-PANELS' and μP '33'. The dropdown menu lists various panel types: None, STD, XP, TFT-84, 16-Alm, NavLight, FireAlm, WinWiper, LCD Op, BNWAS, TFT-57, and None again. The 'NavLight' option is highlighted with a blue selection bar.

Group	μP	Panel	SwID
MG-PANELS	33	None	STD
		None	STD
		XP	STD
		TFT-84	STD
		16-Alm	STD
		NavLight	STD
		FireAlm	STD
		WinWiper	STD
		LCD Op	STD
		BNWAS	STD
		TFT-57	STD
		None	STD

The Panel IDs (=μP) for various types of panels are given below for reference:

- Alarm Panel 1 to 16 (max 16 units);
- Navigation Light Control Panel 33 to 36 (max 4 units);
- Wiper Control Panel 37 to 40 (max 4 units);
- Fire Alarm Panel 41 to 44 (max 4 units);

Next Insert the IO-Module, where lamps are connected to:

This screenshot shows the 'Processor Position Table' tab of a configuration dialog. The table has columns for Group, μP, Panel, SwID, and two additional columns for Board 1 and Board 2. A dropdown menu is open over the 'Board 1' column for the first row, which is assigned to group 'MG-PANELS' and μP '33'. The dropdown menu lists various IO module types: None, STD, 36-Dio, 36-Di, 24-Ai, 24-Mix, PMS, 33-Dio NL-b, 33-Dio NL-I, 33-Dio WW, AFAS-IO, and NoHW. The '33-Dio NL-b' option is highlighted with a blue selection bar.

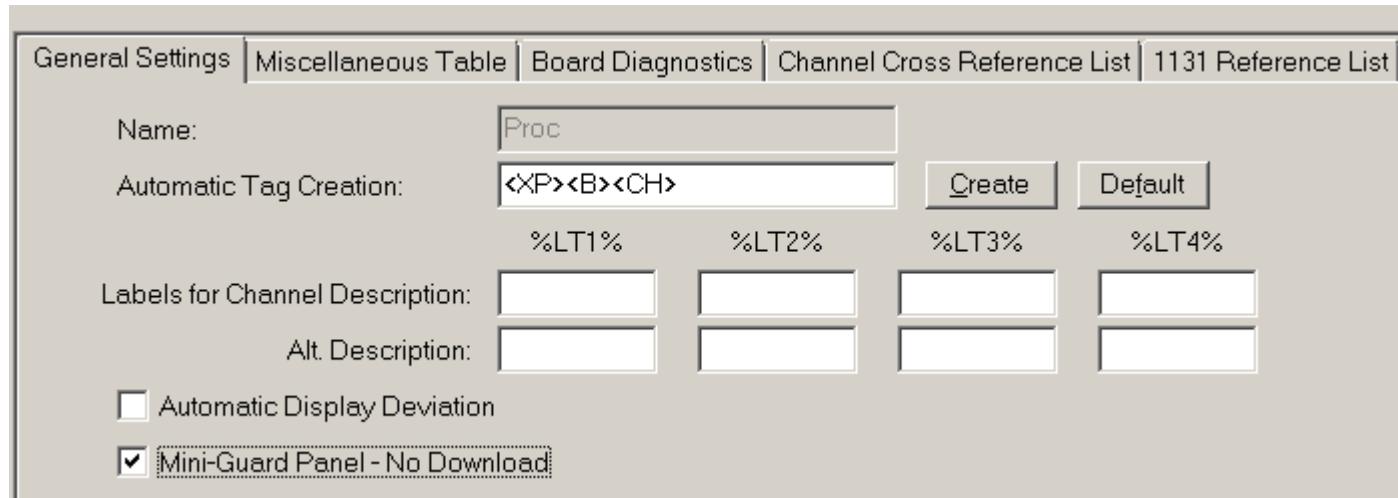
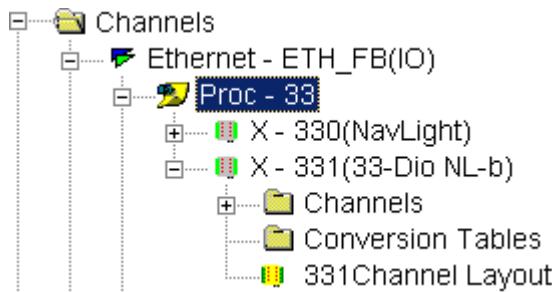
Group	μP	Panel	SwID	Board 1	Board 2
MG-PANELS	33	NavLight	STD	None	None
		None	STD	None	None
		None	STD	36-Dio	None
		None	STD	36-Di	None
		None	STD	24-Ai	None
		None	STD	24-Mix	None
		None	STD	PMS	None
		None	STD	33-Dio NL-b	None
		None	STD	33-Dio NL-I	None
		None	STD	33-Dio WW	None
		None	STD	AFAS-IO	None
		None	STD	NoHW	None

There are two IO-Module types suitable for navigation light panel:

33-Dio NL-I = IO Module for LED-type lamps

33-Dio NL-b = IO Module for LED-type lamps and bulbtype lamps

Followed by going to "general settings" of the processor



Make sure the "Mini-Guard Panel - No Download" is checked.

This is required because else IOServer is trying to download the configuration to the Navigation Panel.

The configuration is done the panel itself (see PTD-Navigation-Light-Control-System)

Remark: Unused lamp inputs and buttons will send as skipped

When adding a stand alone panel to the setup a template is used that includes all possible lamps, including the not used lamps.

The channels are skipped by the Panel when they are not used in the current configuration (panel setup).

If the channels should not appear in skipped list, then remove not used channels from PAL/database cfg.

Example of skipped channels from Navigation light panel

a) On the panel 14 lamp buttons and using IOModule that can handle 12 lamps.

Configure via panel setup which lamp buttons are used. The lamp buttons which are not used are sent by panel as SKIP channels.

b) On the panel configure up to 4 programmable function buttons.

If less then 4 are configured, the function buttons which are not used are sent by panel as SKIP channels.

At removal of lamp 13 and 14, first uncheck the "Mini-Guard Panel - No Download" option:

go to channel layout

31	33031	BUTTON LED OUTPUT - 11	A-out	No	Remote Data	0
32	33032	BUTTON LED OUTPUT - 12	A-out	No	Remote Data	0
33	33033	BUTTON LED OUTPUT - 13	A-out	Yes	Not Installed	
34	33034	BUTTON LED OUTPUT - 14	A-out	Yes	Not Installed	

channel 33033, set source to "Not Installed"

channel 33034, set source to "Not Installed"

channel 33053, set source to "Not Installed"

channel 33054, set source to "Not Installed"

don't forget to check the "Mini-Guard Panel - No Download" option again before closing the PAL

TCP Channel Layout

After inserting TCP processor following channel layout is defaulted:

Channel	Function	Type	Remark
1	Digital Input	1	DI/Hardware Input
2	Digital Input	2	DI/Hardware Input
3	Digital Input	3	DI/Hardware Input
4	Digital Input	4	DI/Hardware Input
5	Digital Output	1	DO
6	Digital Output	2	DO
7	Analog Input/ DI +SF	1	AI
8	Analog Input/ DI +SF	2	AI
9	Analog Input/ DI +SF	3	AI
10	Analog Input/ DI +SF	4	AI
11	Analog Output	1	AO
12	Analog Output	2	AO
13	Horn	1	DI
14	System ON	2	DI
15	System Fail	3	DI
16	-	-	-
17	-	-	-
18	-	-	-
19	-	-	-
20	AO_LoadFail	1	DI
21	AO_LoadFail	2	DI
22	MAIN_PSU_FAIL	-	DI
23	BACKUP_PSU_FAIL	-	DI
24	-	-	-

Channel Scan Rate

At channel configuration scan rate could be set.

General Remark: XP ethernet communication to IOServer or to another XP is 100 ms.

36 DI I/O-Module

Channel Type	I/O-Module Scan Rate (ms)	Channel sent over CAN (ms)
DI	10	On Change

Note: Received ScanRate = 0 will force 10ms scanRate on I/O-Module.

18 DI / 18 DO I/O-Module (36DIO)

Channel Type	I/O-Module Scan Rate (ms)	Channel sent over CAN (ms)
DI	10	On Change
DO	At once,when CAN message is received	N.A.

Note: Received ScanRate = 0 will force 10ms scanRate on I/O-Module.

24 Mix I/O-Module

Channel Type	I/O-Module Scan Rate (ms)	Channel sent over CAN (ms)
DI NPN,DI PNP	10	On Change
DI+SF	20	Within 20ms after a change
AI 0/24mA	20	Within 20ms after a change
AI Thermocouple	100	Within 20ms after a change
AI PT100	100	Within 20ms after a change
AI 0/1V	100	Within 20ms after a change
AI 0/10V	100	Within 20ms after a change
AI Potmeter	100	Within 20ms after a change
DO	At once,when CAN message is received	N.A.
AO 0/1V	At once,when CAN message is received	N.A.
AO 0/24mA	At once,when CAN message is received	N.A.

Note: TotalScanRate = IOBScanRate + delayBeforeSendOverCAN (worst case).

E.g. for DI+SF totalScanRate = 20 + 20 = 40ms worst case

but the value can be anywhere in 20..40ms range.

24 Mix I/O-Module

Channel Type	I/O-Module	Scan Rate (ms)	Channel sent over CAN (ms)
Rejection Type	none	50 Hz	60 Hz
TC_J_0_355	63	100	90 Within 20ms after a change
TC_J_0_695	63	100	90 Within 20ms after a change

TC_J_0_760	50	90	76	Within 20ms after a change
TC_K_0_470	63	100	90	Within 20ms after a change
TC_K_0_940	63	100	90	Within 20ms after a change
TC_K_0_1230	50	90	76	Within 20ms after a change
PT100_40_150	50	90	76	Within 20ms after a change
PT100_40_750	50	90	76	Within 20ms after a change
0_20mA	36	36	32	Within 20ms after a change
4_20mA	36	36	32	Within 20ms after a change
0_1V	36	90	76	Within 20ms after a change
0_10V	36	90	76	Within 20ms after a change
DI+SF	36	90	76	Within 20ms after a change

Notes:

1. On 24AI I/O-Module, the channels are scanned **one at the time** and the total scan time is the sum of all defined channel scan rates.

2. The scan rate of one channel is :

ChannelScanRate = IOBScanRate + delayBeforeSendOverCAN (worst case).

E.g. for TC_J_0_355 with 50Hz rejection, channelScanRate = 100 + 20 = 120ms worst case but the value can be anywhere in 90..120ms range.

If we have two channels it will scan twice as slow and so on.

How to configure 'change password' function on TFT-84"

To do that first configure a channel to store the password and configue a channel for level access
after that go to TFT - hide items

Nr	Name	Formula	Comments
1	LEVEL_0	32087	PASSWORD LEVEL ACTIVE (Digital Channel - Remote Data On/Off)
2	PASSWORD	31073	PASSWORD STORAGE CHANNEL (Analog Channel - Remote Data Retain)
3			SHOULD BE FIRST
4			SHOULD BE AFTER LEVEL_0
5			

Type "LEVEL_0" in name field for configure level access control.

Insert channel number(s) in to formula field.

Remark: Functions like AND, OR, NOT are available to set the Formula.

Choose "PASSWORD" with dropdown on second row.

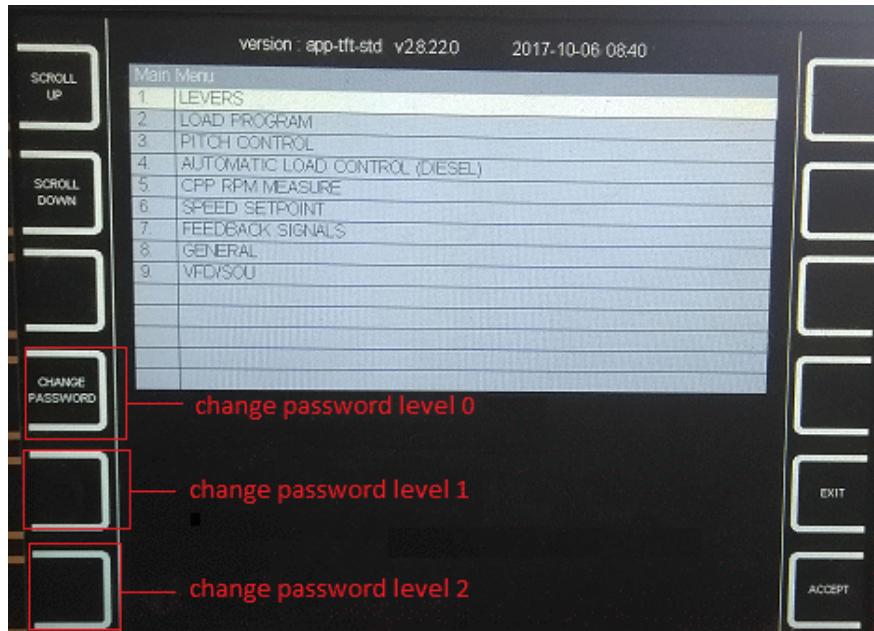
Insert channel number(s) in to formula field again.

Add a button to activate change password function, (PAL-1131G)

Be aware that access level 0 corresponds with button number 4

Be aware that access level 1 corresponds with button number 5

Be aware that access level 2 corresponds with button number 6



To activate the change password function, a function should be called in PAL-1131 program.

```

001 PROGRAM SYSTEM
002 VAR_EXTERNAL (*$AUTO*) END_VAR
003
004 VAR
005   GET_TFT_FLASH : HW_GET_TFT_FLASH;
006   GET_TFT_ALARM_PULSE : HW_GET_ALARM_PULSE_ON_NEXT;
007   GET_TFT_UNACCEPT : HW_GET_UNACCEPT;
008
009   SET_TFT_FLASH : HW_SET_TFT_FLASH;
010   SET_RD_ACTIVE : HW_SET_RD_ACTIVE;
011   SET_PUBLIC_KEY : HW_MENU_PUBLIC_KEY;
012   SET_TFT_FIRST : HW_MENU_FIRST_PAGE;
013   SET_TFT_PW_CHANGE : HW_MENU_PW_CHANGE;
014 END_VAR
015
016
017 (* POWER_UP *)
018 START_UP(CLK:= TRUE);
019 POWER_UP := START_UP.Q ;
020
021 IF POWER_UP THEN          (* INIT ONCE WITH POWER UP *)
022   // 2017-10-05
023   SET_PUBLIC_KEY(IINPUT:=0);
024   SET_TFT_FIRST(IINPUT:=PAGE_NR_MENU);
025   SET_TFT_PW_CHANGE(IINPUT:=1);
026 END_IF

```

when it works, the following screen will be shown. It has inputs for:

- Old Password
- New Password
- Verify Password

Password Change

>Password Old	**
Password New	
Password Verify	

1

2

3

4

5

6

7

8

9

0

EXIT

ACCEPT

the new password will only be accepted, if all three fields are correctly filled in.

TFT DATA LOGGING

The 8.4" TFT operator panel of the TCU includes an alarm/status logger with real-time time stamping for maintenance purposes and a periodic data (trend) logger. The logged data is stored in the internal non-volatile flash memory of this operator panel. The logged data can be retrieved via Ethernet using the Firmware Installer tool.

RTC Clock

The data logger real-time clock keeps track of the current time and date for time-stamping the logged data. The (initial) time and date (UTC) are set via the parameter menus in the TCU operator panel. When the TCS is used in a proprietary "Mega-Guard" Ethernet network (i.e. when integrated with other Mega-Guard equipment such as Alarm and Monitoring System or Dynamic Positioning System) then the data logger real-time clock is automatically synchronized with the Mega-Guard network servers.

The time and date formats are:

- Time: HH:MM:SS (HH=hour in 24 hour format, MM=minute, SS=second)
- Date: YYYY-MM-DD (DD=day, MM=month, YYYY= year)

Logging Storage

The logging storage has the capacity for storing a total of 6Mb which equals approximately 360 000 event samples when using a maximum of 300 Alarm/Status signals and 300 Trend signals. When the storage limit is reached, the oldest logging data will be deleted (first in, first out). The statistical counters for all logging data however remain active until the logging is reset / restarted.

To safeguard logging information, the system will copy the samples from its working memory (Ram) to its storage memory (Flash) using a 15 minute timer. A copy from Ram to Flash is also triggered when the number of samples in Ram exceeds 64.

For example:

Over the period of the first year an average of 980 events can be logged per day before the logger starts deleting the oldest log samples.

Logging data storage can only be reset / restarted via the TFT menus. The logged data can be retrieved via Ethernet using the Firmware Installer tool.

No data is logged when the TCU operator panel is switched off.

Details:

The 6Mb logging storage is divided into 48 sectors of 128KB. Each sector begins with a header which is 10KB when the maximum number of Alarm/Status and Trend signals is configured. Each sector contains around 7500 events.

Export of Logging Data

The logging files are exported in CSV format (comma-separated values). The CSV-files can be transported with the flash drive to any PC and analyzed with e.g. Excel or Calc. Two logging files are created by the Firmware Installer tool; one log file containing all statistical data (since the start of the logging) and one log file containing all chronological logged events.

Statistical log file (STAT.CSV)

The statistic log file gives a non-chronologic summary of all alarm and event signals and the totalizer counter value of how many (alarm) events occurrences there have been since the start of the logging. The export format of the statistical CSV file is:

Header:	Date,	Time,	Tag,	Value,	Unit,	Trigger,	Status,	Count,
Event Rows:	DD-MM-YY (of start-up),	HH:MM:SS (of start-up),	name,	-,	EU,	Value, or <a>, in case of alarm log	Text,	Total event count,

Example:

(Header) ₂	Date	Time	Tag	Value	Unit	Trigger	Status	Count
(alarm)	23-05-12	11:03:20	PS-4638	-	degC	<a>	HIGH	3
(alarm)	23-05-12	11:03:20	PS-4639	-	degC	<a>	Normal	7
(alarm)	23-05-12	11:03:20	09-4034	-	digital	<a>	ALARM	1
(trend)	23-05-12	11:03:20	07-12569	-	rpm	50	Normal	+6923
(trend)	23-05-12	11:03:20	05-3238	-	digital	-/1	On	367

² Note that (xxxx) in left column are explanatory fields which do not appear in the actual logging

Chronologic log file (CHRON.CSV)

The chronological log file gives all stored chronologic logged events.

The export format of the statistical CSV file is:

Header:	Date,	Time,	Tag,	Value,	Unit,	Trigger,	Status,
Event Rows: (Data at time of event)	DD-MM-YY	HH:MM:SS	name,	-,	EU,	Value, or <a>, in case of alarm log	Text,

(Header) ₂	Date	Time	Tag	Value	Unit	Trigger	Status
(event)	15-10-13	21:01:53	07-12569	750	rpm	50	Normal
(alarm)	17-10-13	23:15:53	PS-4638	145	degC	<a>	HIGH
(alarm)	17-10-13	23:16:15	PS-4638	145	degC	<a>	SENSFAIL
(alarm)	17-10-13	23:16:55	PS-4639	130	degC	<a>	Normal
(alarm)	12-03-14	22:45:29	09-4034	1	digital	<a>	ALARM
(alarm)	12-03-14	23:15:53	05-3238	1	digital	-/1	On

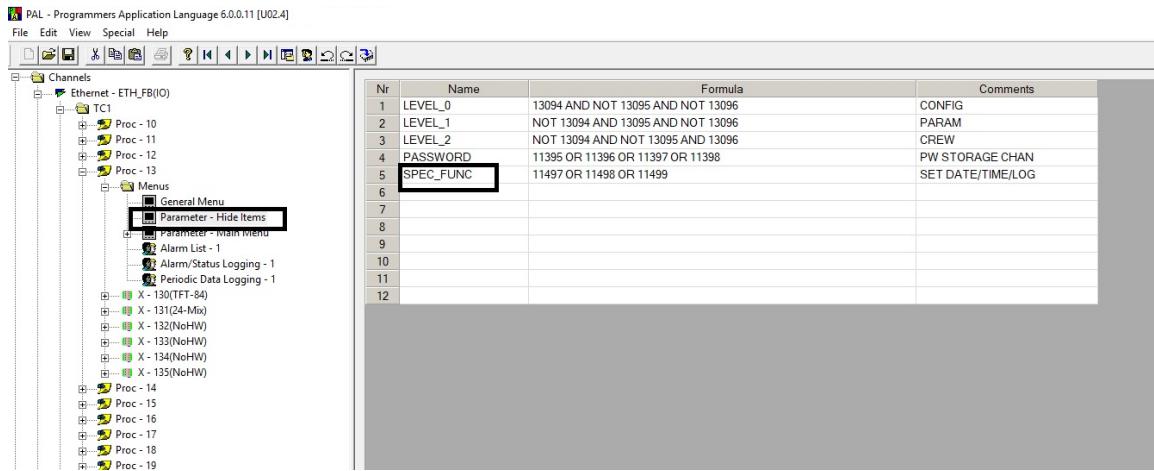
² Note that (xxxx) in left column are explanatory fields which do not appear in the actual logging

Configuring set date, set time and reset log functions

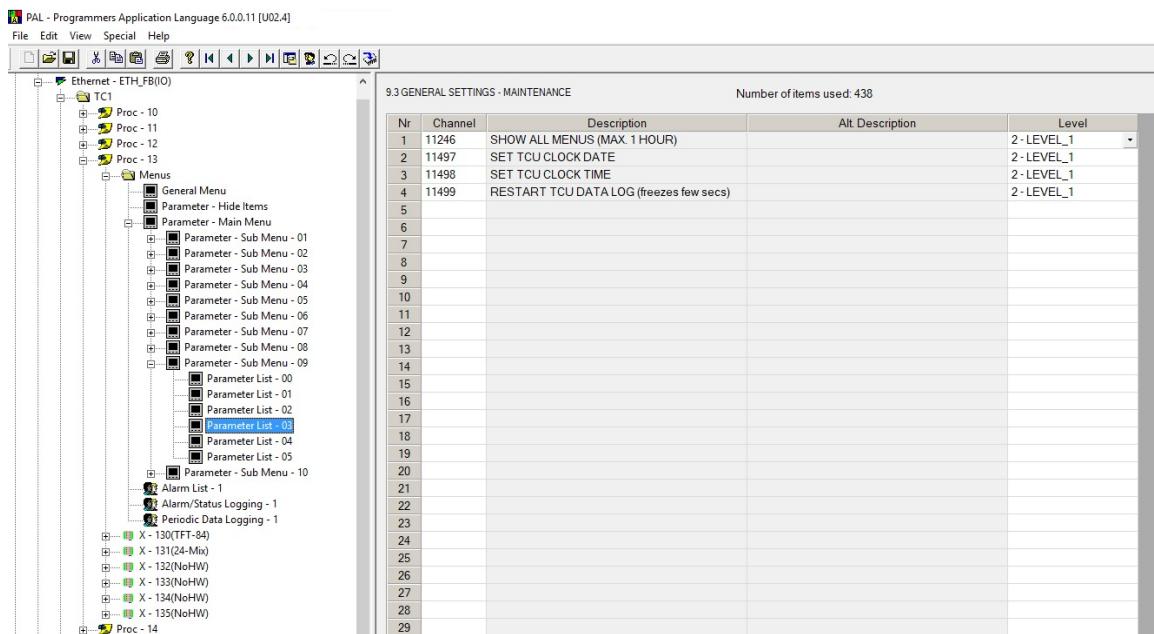
When data logging is used without a server, the time and date must be configurable using the menu. When a server is used, the system will receive its time updates from the server.

The In the ‘Parameter – Hide Items’ 3 digital input (RD) channels have to be configured under ‘SPEC_FUNC’. These channels are used to control;

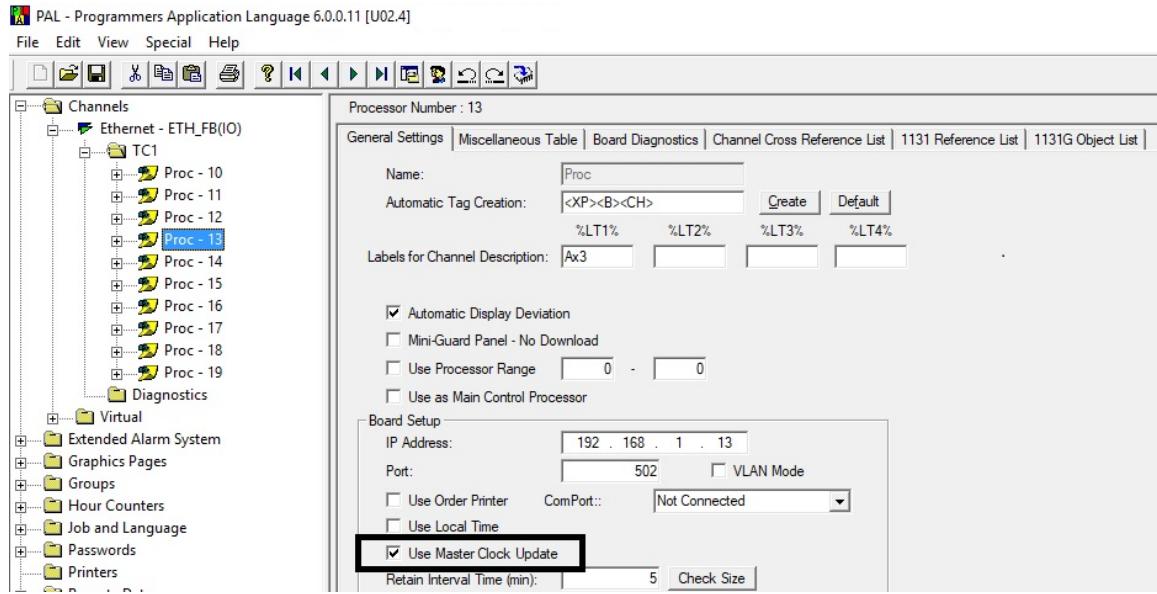
- Setting the date
- Setting the time
- Resetting the log memory



The same channel numbers should be configured in the Parameter – Submenu, here you can also configure the access level. The menu knows when to trigger a set date, set time or reset log function because they were configured in the ‘SPEC_FUNC’ section.



The ‘Use Master Clock Update’ checkbox should be checked on each TFT to allow other TFTs to receive time updates.



1131 IOS List

After selecting '1131 IOS List'

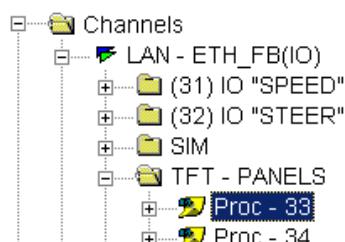
Special list of Global Variables of PAL-1131, these items are set and send from IOServer to XP/TFT.

Processor Number : 76

General Settings | Miscellaneous Table | Board Diagnostics | Channel Cross Reference List | 1131 Reference List | 1131G Object List **1131 IOS List**

Nr	Variable	Type
1	ENGONDUTY	INT
2	PREWARNING	INT
3	ATTENDED	BOOL
4	UNATTENDED	BOOL
5	TIMEROFF	BOOL
6	ACKUNATTENDEDENABLED	BOOL
7	ACKCABINPENDING	BOOL
8	REQUESTUNATTENDED	BOOL
9	ALONGSIDE	BOOL
10	HORN1ISON	BOOL
11	HORN2ISON	BOOL
12	DISPLAYLOCALTIME	BOOL
13	PATROLTIMER	INT
14	CALL	BOOL
15	CALL_ENG	INT
16	CALL_ALL	BOOL
17	CALLER_ID	BYTE
18	DATE_TEXT	STRING
19	TIME_TEXT	STRING
20		
21		
22		

This Item is only activated when at 'Proc - General Settings' checkbox 'Use 1131 IOS List' is set.



Place: Channels, ETH_FB, Proc

How to import a database in PAL: (Example)

For Example there is an AMS project (XP1..XP5) and PCS Project (XP31..XP38)

On computer you have stored your files like

D:\Software\System_PCS_2018
D:\Software\System_AMS_2017

You like to merge both projects into one new project

- 1.** copy all files from System_PCS_2018 folder to your main software folder, it must be installed to the MEGA-Guard installation folder: D:\Software\System
- 2.** Make sure that the software version of the AMS configuration and the PCS configuration you want to merge, that are the same.

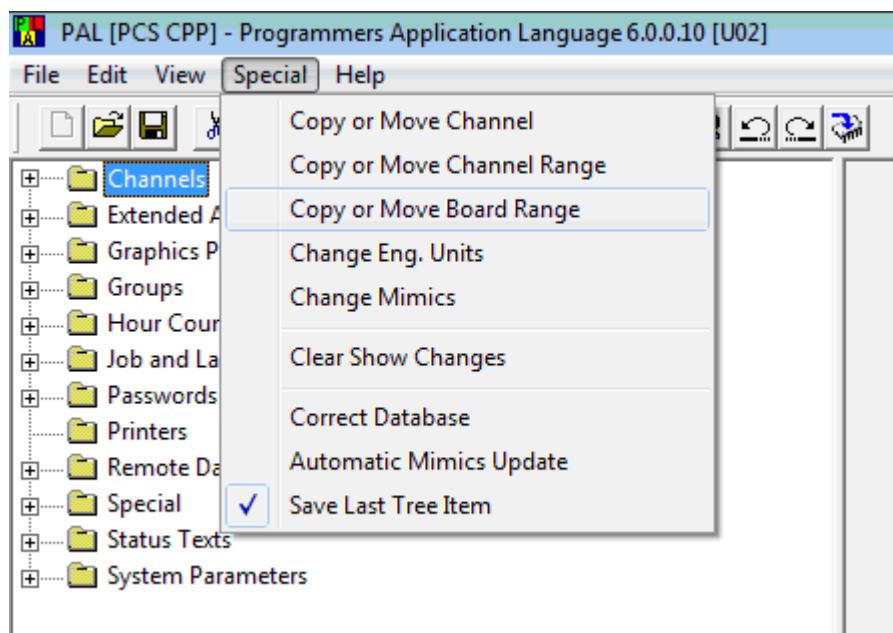
If this is not the case upgrade to the latest software version so that both configurations use the same version.

- 3.** Now copy the following files from the System_AMS_2017 folder to your main software folder:

- a.** Copy D:\Software\System_AMS_2017\Setup\XP folders of all XP's (XP01..XP05) to D:\Software\System\Setup\XP\
- b.** Copy D:\Software\System_AMS_2017\Setup\Config.mdb to D:\Software\System\Setup\Lib\
- c.** Copy D:\Software\System_AMS_2017\Setup\Mimics to D:\Software\System\Setup\mimics
- d.** Copy D:\Software\System_AMS_2017\Setup\TFT BMP's files for the TFT-panels to D:\Software\System\Setup\TFT

- 4.** Open the PAL

- 5.** Go to tab Special => select 'Copy or Move Board Range'

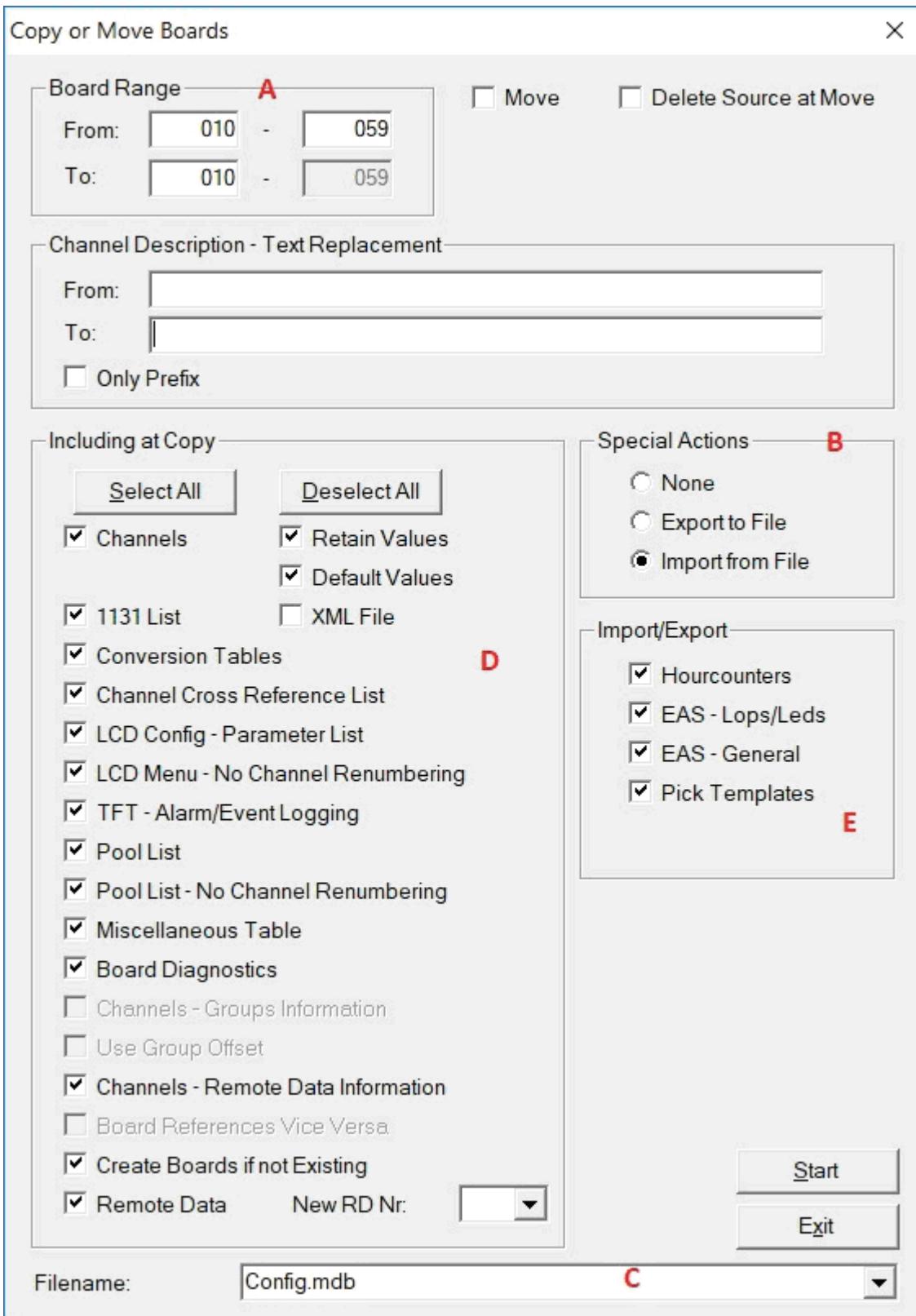


- 6.** Now choose the processor range you want to import into the main database:

- A.** Enter the board range of the processors you want to import.
Example => XP01 to XP05 => 010 to 059, and enter into "To" field => 010
- B.** At Special Actions select "Import from file"
- C.** At Filename: select the database that you copied into the Lib directory.

D. Check all items like to import, (XML files you did copy at step 3a)

E. Check all items like to import, with AMS normally you have EAS configuration



7. Now Press Start Button, the actual import will start, it's finished when Board Range fields become empty

8. Now close the PAL and restart it again.

9. In the PAL go to Special Parameters => Multicast Groups Create a multicast group for the imported processors.

10. If you also have communication between PCS and AMS processors you must also create a multicast group for the PCS/AMS processors that are communicating with each other. If the processors don't have communication with each other than don't put them in a multicast group

(this will only create extra load on the Ethernet).

11. Check/create the groups in the PAL

12. Set the mimics in the PAL

How to use Japanese as alternative language

Configure workstation and printer font for Japanese.

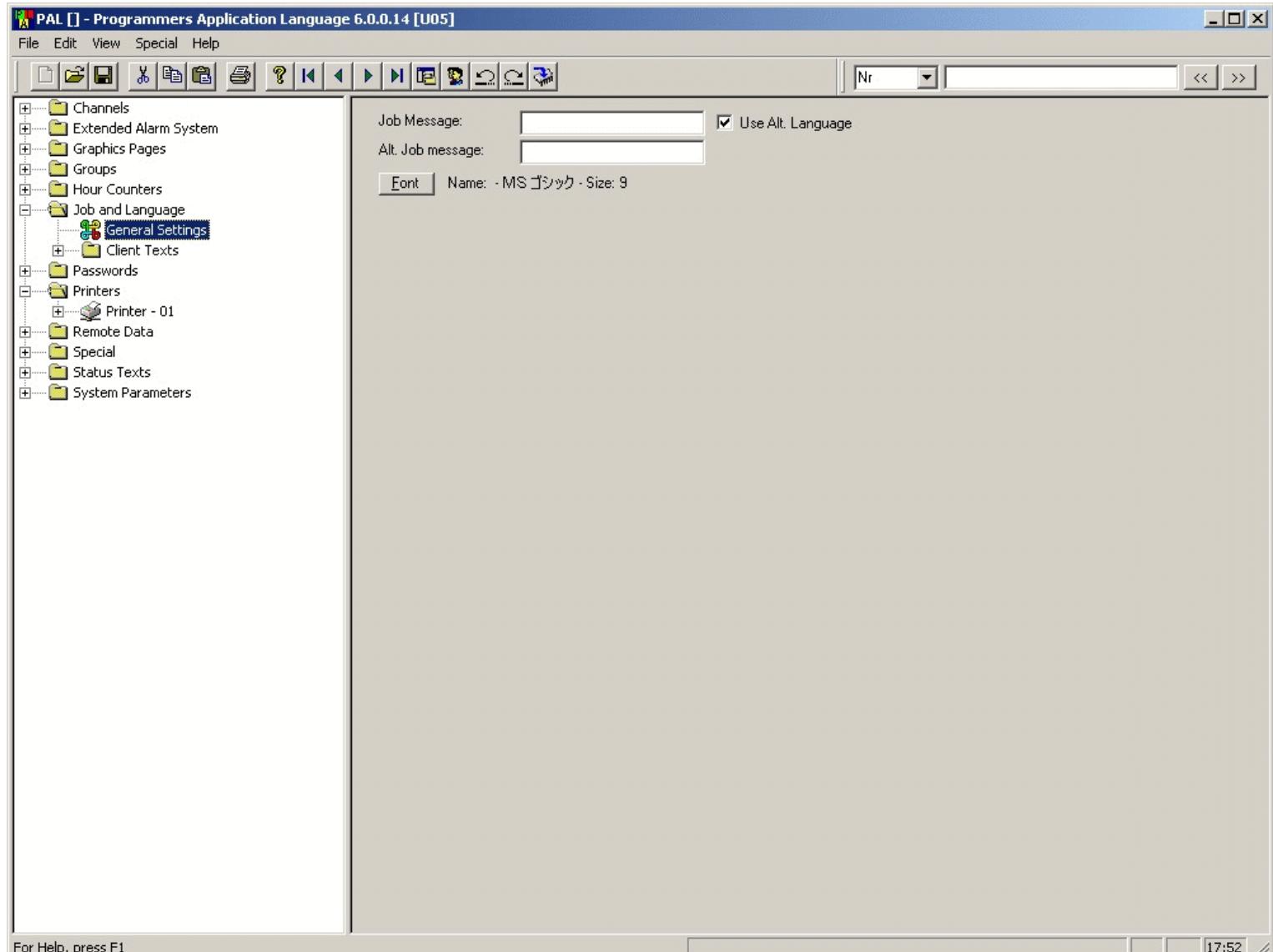
The system is able to display CJK (Asiatic languages such as Chinese / Japanese / Korean) using the 'Alt language' language option.

Display Japanese by setting Alternate Font in PAL

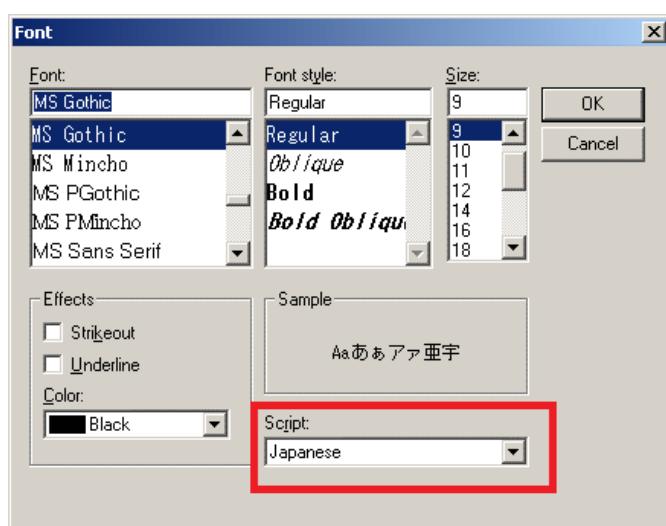
To display it is required to set the Alternate Font to MS Gothic and script to Japanese

In PAL select the "Job and Language" branch. Next select "General Settings".

On the right hand dialog switch on the "Use Alt Language" check box.



The Font must be set to MS Gothic with script Japanese. The Font name might differ depending on the regional settings.



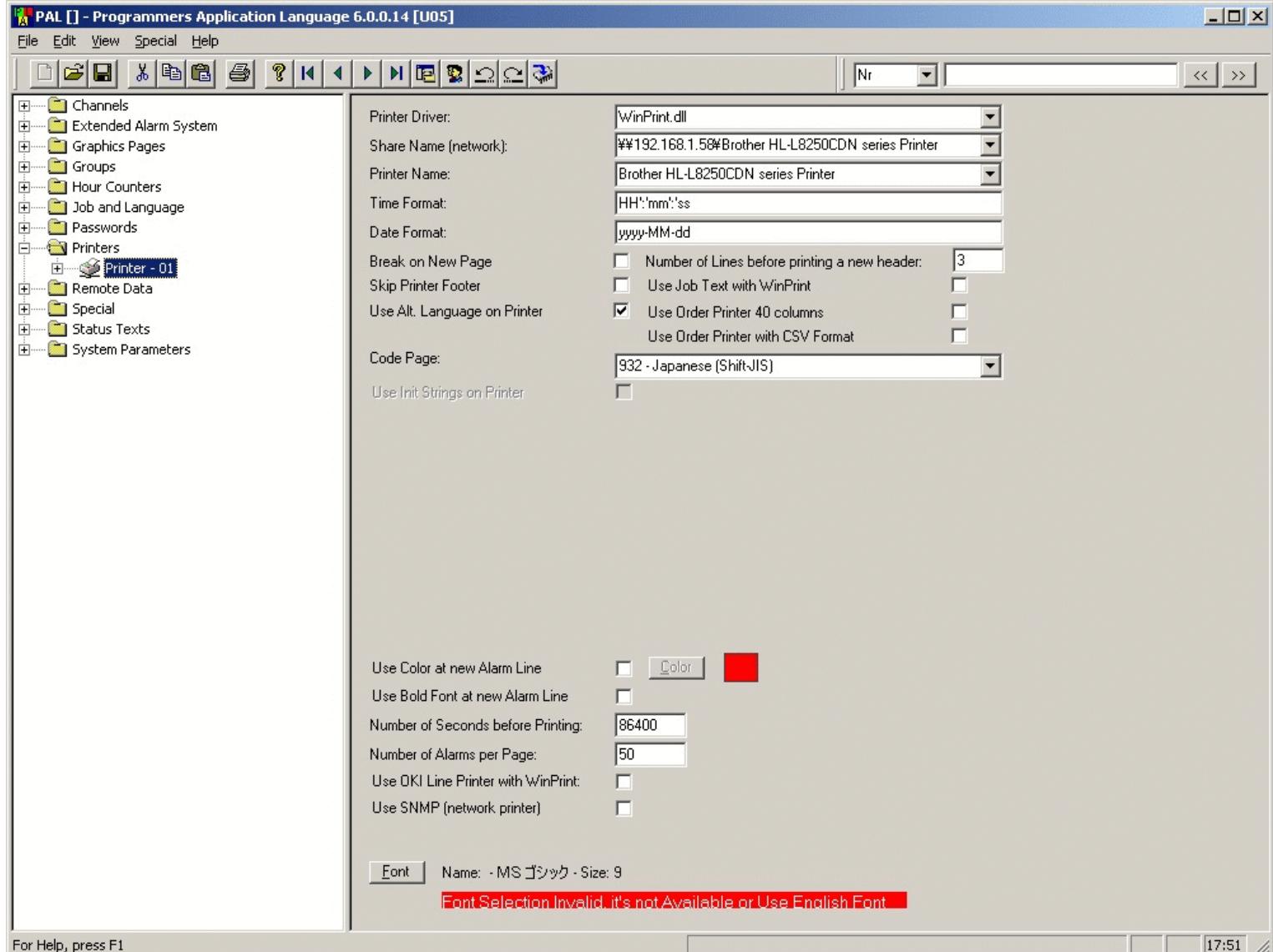
Print Japanese by setting Alternate Font in PAL

To print it is required to set the Alternate Font to MS Gothic and script to Japanese:

In PAL select Printers branch. Next select the printer in this branch that must print Japanese.

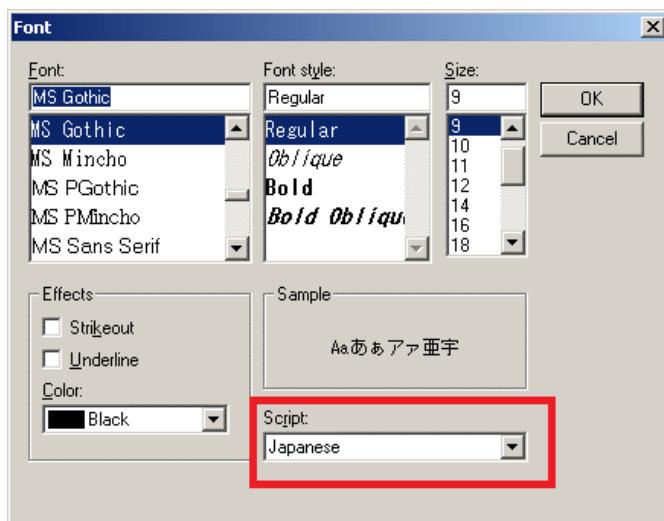
WinPrint.dll is required as printer driver. The brand and share name of your printer may differ from the example on the right.

Configure the Code page 932 – Japanese and the Font at the bottom of the page to "MS Gothic" with Script setting to Japanese.



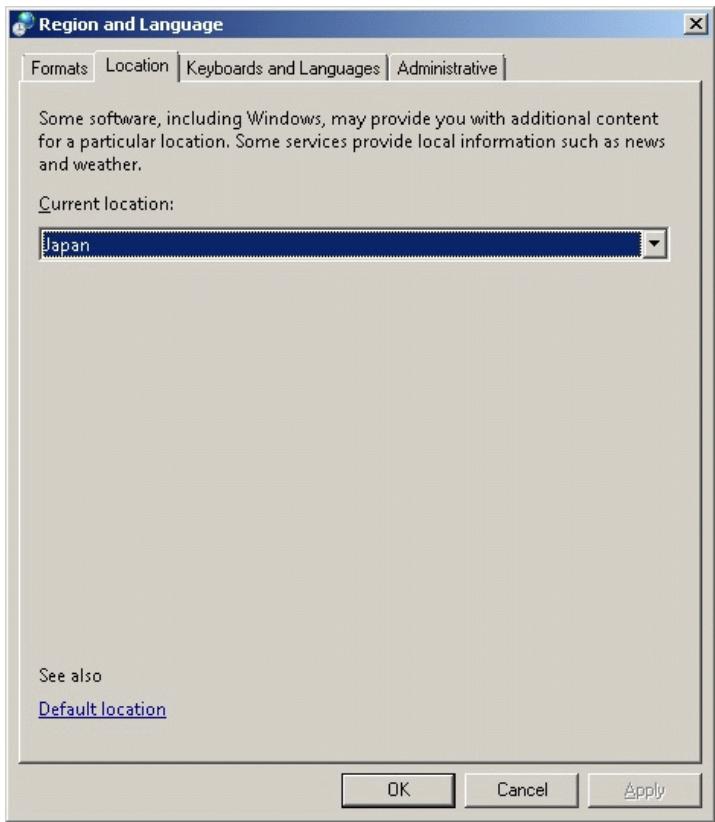
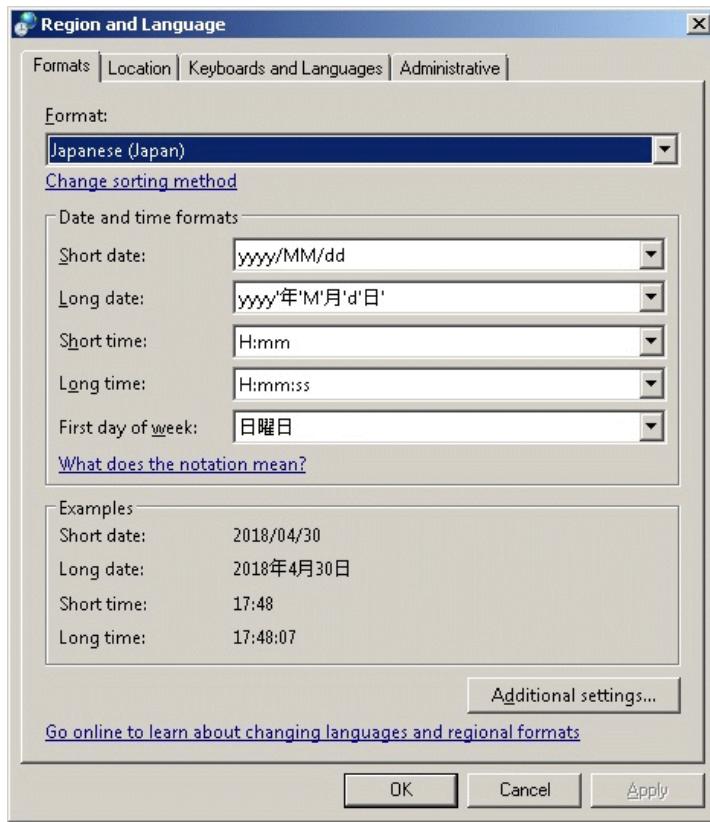
For Help, press F1

17:51

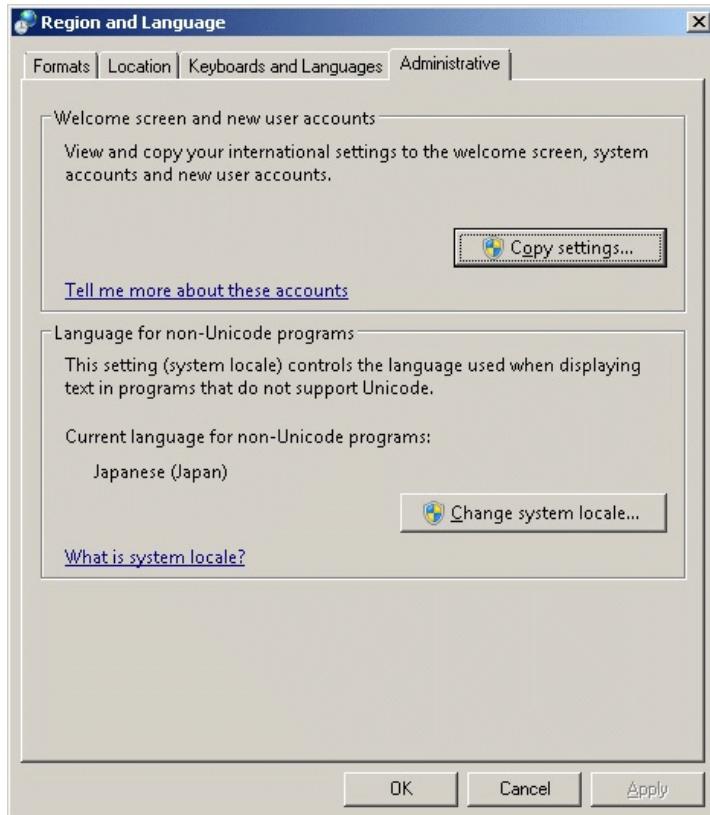


Input Japanese by setting Regional settings in Windows

Via Control Panel > Regional Settings the following dialogs must be configured accordingly to use Japanese:



Set the system locale for non-Unicode programs:



Notice that additional settings may be required to use proper keyboard layout.

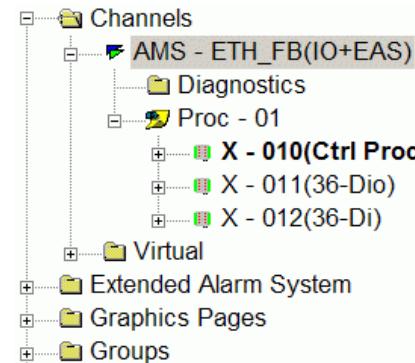
How to insert a TFT-57 with AFAS / CFFAS / BNWAS / WinWiper / NaviLight

This example describes a configuration with TFT-57 with Navigation Light.

For other functions like AFAS, CFAS, BNWAS and WinWiper same steps can be followed.

Be aware that each function has its own kind of hardware board.

Go to the [Processor Position Table](#). Which can be found at:



Insert TFT-57 with μP 33.

The screenshot shows the SIMATIC Manager software interface with the 'Processor Position Table' dialog box open. The dialog box has tabs for General Settings, Processor Position Table, Communication Settings, and General Board Setup. The 'Processor Position Table' tab is selected. The table lists various processor groups and their configurations:

Group	μP	Panel	SwID	IO-Mod 1	IO-Mod 2	IO-Mod 3
AMS	11	XP-2E	CAN	NoHW	NoHW	NoHW
AMS	12	XP-2E	CAN	NoHW	NoHW	NoHW
MGPanels	33	None	STD	None	None	None
			None	STD	None	None
			XP-2E	STD	None	None
			TFT-84	STD	None	None
			16-Alm	STD	None	None
			NavLight	STD	None	None
			FireAlm	STD	None	None
			WinWiper	STD	None	None
			LCD Op	STD	None	None
			BNWAS	STD	None	None
			TFT-57	STD	None	None
			TCP	STD	None	None
			XP-4E	STD	None	None
			TFT-24	STD	None	None
			LCD Op-4E	STD	None	None
			TFT-50W	STD	None	None

Next Insert the IO-Module board, where lamps are connected to:

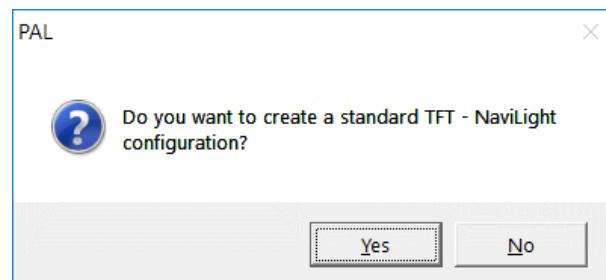
General Settings	Processor Position Table	Communication Settings	General Board Setup			
Group	μP	Panel	SwID	IO-Mod 1	IO-Mod 2	IO-Mod 3
AMS	11	XP-2E	CAN	NoHW	NoHW	NoHW
AMS	12	XP-2E	CAN	NoHW	NoHW	NoHW
MGPanels	33	TFT-57	STD	None	None	None
				None	None	None
				36-Dio	None	None
				36-Di	None	None
				24-Ai	None	None
				24-Mix	None	None
				PMS	None	None
				CFAS	None	None
				BNWAS-IO	None	None
				33-Dio NL-b	None	None
				33-Dio NL-I	None	None
				33-Dio WW	None	None
				33-Dio NLbl	None	None
				AFAS-IO	None	None
				NoHW	None	None

There are two IO-Module board types suitable for navigation light panel:

33-Dio NL-I = IO Module for LED-type lamps

33-Dio NL-b = IO Module for LED-type lamps and bulbtype lamps

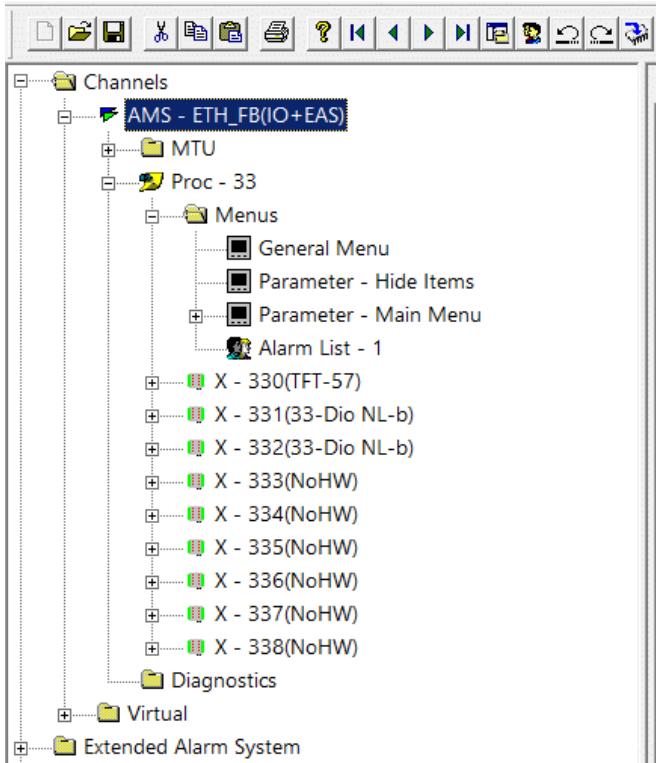
A question is asked to add a default configuration.



Choose "YES" and wait until PAL is finished.....

After this restart of PAL is required.

After Restart see new items



Goto the PAL1131 Reference to add default project.

Processor Number : 33

General Settings | Miscellaneous Table | XP Diagnostics | Channel Cross Reference List | 1131 Reference List | 1131G Object List | 1131 IOS List | 1131 IO-Module List

CycleTime-out(ms) :	100	<input type="button" value="Check Size"/>	<input type="button" value="Create All New From Channels Configuration"/>				
Use Local Channel Numbering	<input type="checkbox"/>	<input type="button" value="Start PAL 1131"/>					
Number of items used: 0		<input type="button" value="Check List"/>	<input type="button" value="Create All Remote XP List"/>				
Nr	Channel	TagName	Description	Dir	Variable	Type	Use 1131
1							<input type="checkbox"/>
2							<input type="checkbox"/>
3							<input type="checkbox"/>
4							<input type="checkbox"/>
5							<input type="checkbox"/>
6							<input type="checkbox"/>
7							<input type="checkbox"/>
8							<input type="checkbox"/>
9							<input type="checkbox"/>
10							<input type="checkbox"/>
11							<input type="checkbox"/>
12							<input type="checkbox"/>
13							<input type="checkbox"/>
14							<input type="checkbox"/>

Press 'Create All New Channels From Channel Configuration'.
a new list is created.

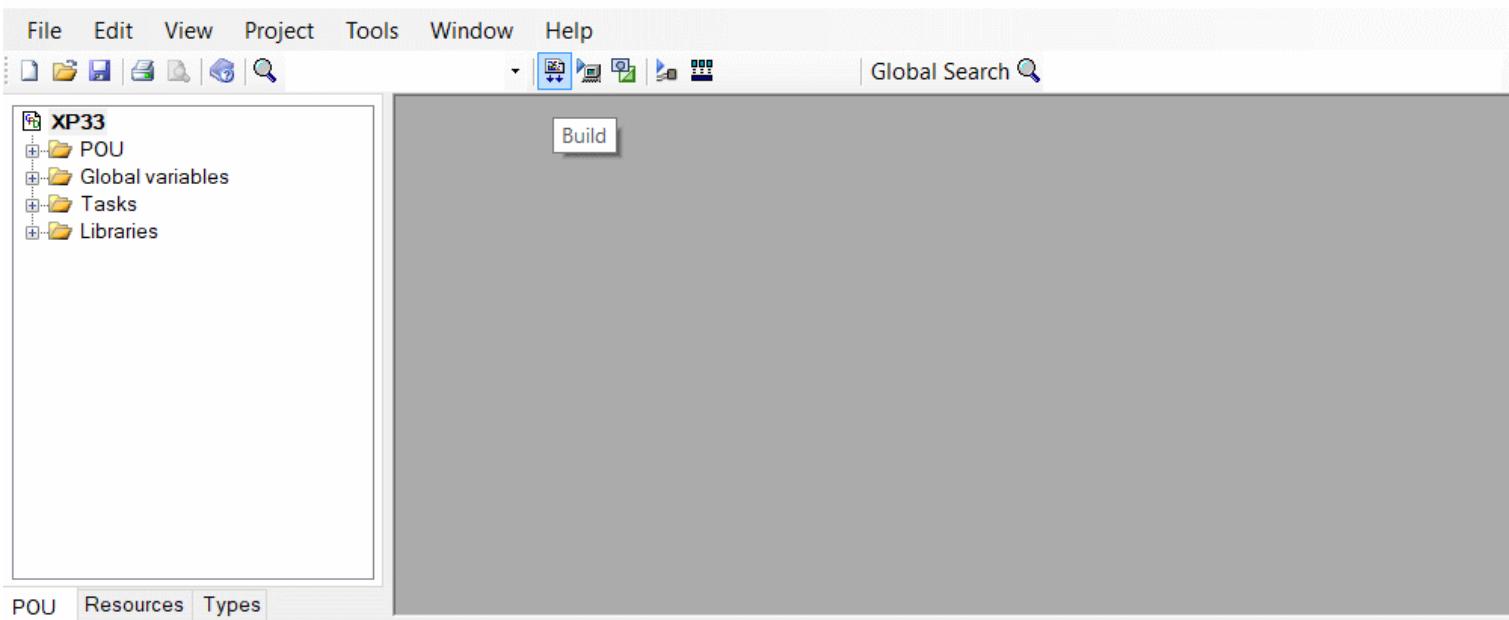
CycleTime-out (ms) :

Use Local Channel Numbering

Number of items used: 0

Nr	Channel	TagName	Description	Dir	Variable	Type	Use 1131
1	33000	33000	NEXT ALARM ALL	=>	NEXT_ALARM	BOOL	<input checked="" type="checkbox"/>
2	33001	33001	HW_BUTTON_1	=>	BUTTON_1	BOOL	<input checked="" type="checkbox"/>
3	33002	33002	HW_BUTTON_2	=>	BUTTON_2	BOOL	<input checked="" type="checkbox"/>
4	33003	33003	HW_BUTTON_3	=>	BUTTON_3	BOOL	<input checked="" type="checkbox"/>
5	33004	33004	HW_BUTTON_4	=>	BUTTON_4	BOOL	<input checked="" type="checkbox"/>
6	33005	33005	HW_BUTTON_5	=>	BUTTON_5	BOOL	<input checked="" type="checkbox"/>
7	33006	33006	HW_BUTTON_6	=>	BUTTON_6	BOOL	<input checked="" type="checkbox"/>
8	33013	33013	STOP_BUZZER	<=	BUZZER	BOOL	<input checked="" type="checkbox"/>
9	33017	33017	OUTPUT - PWM	<=	EXT_DIM	FINT	<input checked="" type="checkbox"/>
10	33018	33018	OUTPUT - DIMMING TFT BACKLIGHT	<=	TFT_DIM	FINT	<input checked="" type="checkbox"/>
11	33022	33022	NLS - KEEP SILENT (FAT MODE)	=>	SILENT	BOOL	<input checked="" type="checkbox"/>
12	33030	33030	ALARM_ACCEPT	<=	ALARM_ACCEPT	BOOL	<input checked="" type="checkbox"/>
13	33050	33050	PROJECT SOFTWARE VERSION (R/O)	<=	PROJECT_SW_VER	FINT	<input checked="" type="checkbox"/>
14	33051	33051	MASTER SOFTWARE VERSION (R/O)	<=	MASTER_SW_VER	FINT	<input checked="" type="checkbox"/>
15	33052	33052	PROJECT NUMBER	=>	PROJECT_NR	FINT	<input checked="" type="checkbox"/>
16	33060	33060	IO MODULE NOT PRESENT	=>	IO_BOARD_FAIL	BOOL	<input checked="" type="checkbox"/>
17	33061	33061	IO MODULE 1 NOT PRESENT	=>	C061	BOOL	<input type="checkbox"/>
18	33062	33062	IO MODULE 2 NOT PRESENT	=>	C062	BOOL	<input type="checkbox"/>
19	33064	33064	LAMP TYPE (LED = 0 BULB = 1)	=>	C064	BOOL	<input type="checkbox"/>

Press 'Start PAL1131' and build the default project.



Building the item "XP33". Started at 10:44:09
Compilation of "XP33" completed at 10:44:11.
Linking "XP33" completed at 10:44:13.
Statistics: Errors: 0, Warnings: 0, Hints: 0
Started compilation of visualization XP33 at 10:44:13
Finished compilation of visualization XP33 at 10:44:13

Build

After closing PAL1131 the reference list should be like:
(maybe a refresh of screen is required, a by selecting other tree-item)

CycleTime-out (ms) :

Create All New
From Channels
Configuration

Use Local Channel Numbering

Number of items used: 0

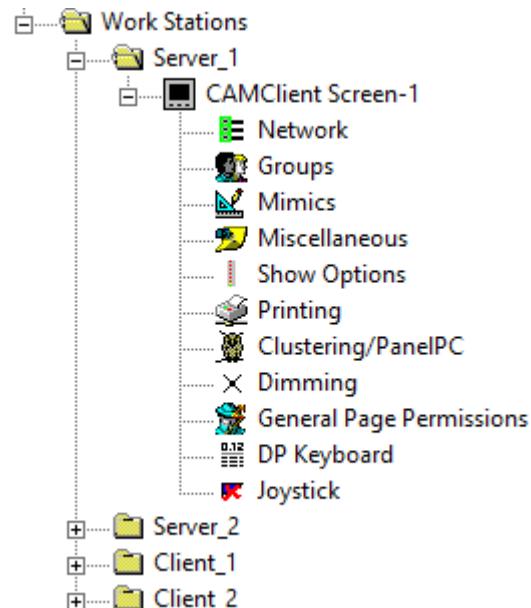
Nr	Channel	TagName	Description	Dir	Variable	Type	Use 1131
1	33000	33000	NEXT ALARM ALL	=>	NEXT_ALARM	BOOL	<input checked="" type="checkbox"/>
2	33001	33001	HW_BUTTON_1	=>	BUTTON_1	BOOL	<input checked="" type="checkbox"/>
3	33002	33002	HW_BUTTON_2	=>	BUTTON_2	BOOL	<input checked="" type="checkbox"/>
4	33003	33003	HW_BUTTON_3	=>	BUTTON_3	BOOL	<input checked="" type="checkbox"/>
5	33004	33004	HW_BUTTON_4	=>	BUTTON_4	BOOL	<input checked="" type="checkbox"/>
6	33005	33005	HW_BUTTON_5	=>	BUTTON_5	BOOL	<input checked="" type="checkbox"/>
7	33006	33006	HW_BUTTON_6	=>	BUTTON_6	BOOL	<input checked="" type="checkbox"/>
8	33013	33013	STOP_BUZZER	<=	BUZZER	BOOL	<input checked="" type="checkbox"/>
9	33017	33017	OUTPUT - PWM	<=	EXT_DIM	FINT	<input checked="" type="checkbox"/>
10	33018	33018	OUTPUT - DIMMING TFT BACKLIGHT	<=	TFT_DIM	FINT	<input checked="" type="checkbox"/>
11	33022	33022	NLS - KEEP SILENT (FAT MODE)	=>	SILENT	BOOL	<input checked="" type="checkbox"/>
12	33030	33030	ALARM_ACCEPT	<=	ALARM_ACCEPT	BOOL	<input checked="" type="checkbox"/>
13	33050	33050	PROJECT SOFTWARE VERSION (R/O)	<=	PROJECT_SW_VER	FINT	<input checked="" type="checkbox"/>
14	33051	33051	MASTER SOFTWARE VERSION (R/O)	<=	MASTER_SW_VER	FINT	<input checked="" type="checkbox"/>
15	33052	33052	PROJECT NUMBER	=>	PROJECT_NR	FINT	<input checked="" type="checkbox"/>
16	33060	33060	IO MODULE NOT PRESENT	=>	IO_BOARD_FAIL	BOOL	<input checked="" type="checkbox"/>
17	33061	33061	IO MODULE 1 NOT PRESENT	=>	C061	BOOL	<input type="checkbox"/>
18	33062	33062	IO MODULE 2 NOT PRESENT	=>	C062	BOOL	<input type="checkbox"/>

Now the item is ready to use.

In other words: the configuration can be downloaded by MEGA-GUARD.

WorkStations

Tree item can be found at root:

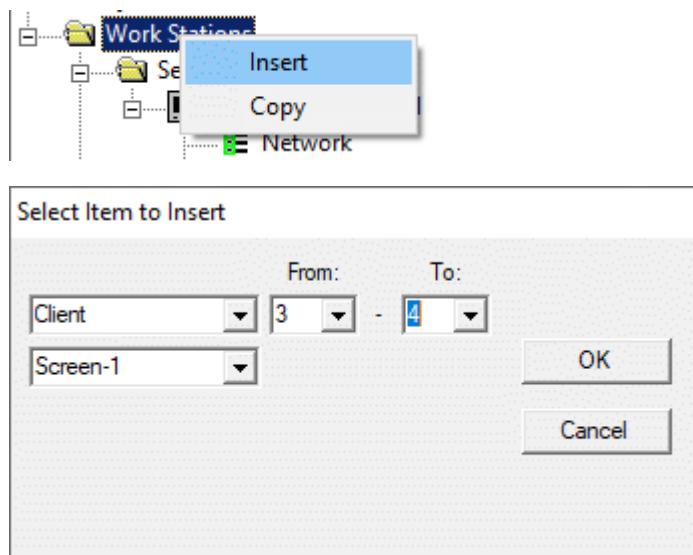


Items:

- Click on 'CAMClient Screen-1' to configure this: [Access](#)
- Click on 'Network' to configure this: [Network](#)
- Click on 'Groups' to configure this: [Groups](#)
- Click on 'Mimics' to configure this: [Mimics](#)
- Click on 'Miscellaneous' to configure this: [Miscellaneous](#)
- Click on 'Show Options' to configure this: [Show Options](#)
- Click on 'Printing' to configure this: [Printing](#)
- Click on 'Clustering/PanelPC' to configure this: [Clustering/PanelPC](#)
- Click on 'Dimming' to configure this: [Dimming](#)
- Click on 'General Page Permissions' to configure this: [General Page](#)
- Click on 'DPKeyboard' to configure this: [DPKeyboard](#)
- Click on 'Joystick' to configure this: [Joystick](#)

Insert:

Press right mouse button to popup-menu and choose 'Insert'



Copy:

Press right mouse button to popup-menu and choose 'Copy'

Work Station - CAMClient Screen

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

Allow this client to:	
<input checked="" type="checkbox"/> Reset General Engineers Alarm	Lock Channel: <input type="text" value="0"/>
<input checked="" type="checkbox"/> Reset Unattended State with Acknowledge	Lock Channel: <input type="text" value="0"/>
<input checked="" type="checkbox"/> Reset Unattended State with Stop Horn	Lock Channel: <input type="text" value="0"/>
<input checked="" type="checkbox"/> Switch Attended/Unattended state	Lock Channel: <input type="text" value="0"/>
<input type="checkbox"/> Accept Unattended Selection	
<input checked="" type="checkbox"/> Acknowledge	Lock Channel: <input type="text" value="0"/>
<input type="checkbox"/> Password for Acknowledge, Password Valid Time (sec):	<input type="text" value="10"/>
<input type="checkbox"/> Disable Mouse Menu for Acknowledge	
<input type="checkbox"/> Disable Left Mouse click for Acknowledge	
<input checked="" type="checkbox"/> Start Editor - Configuration tool	Lock Channel: <input type="text" value="0"/>
<input checked="" type="checkbox"/> Start PAL- Configuration tool	Lock Channel: <input type="text" value="0"/>
<input checked="" type="checkbox"/> Start PAL on Primary Screen	
<input checked="" type="checkbox"/> Use PickActions with single Click	
<input type="checkbox"/> Use Touchscreen	
<input checked="" type="checkbox"/> Skip Channel	Lock Channel: <input type="text" value="0"/> Password Valid Time (sec): <input type="text" value="10"/>
<input checked="" type="checkbox"/> Stop Global Horn 1 (EAS)	Lock Channel: <input type="text" value="0"/>
<input checked="" type="checkbox"/> Stop Global Horn 2	Lock Channel: <input type="text" value="0"/>
<input type="checkbox"/> Stop Global Horn 3	Lock Channel: <input type="text" value="0"/>
<input type="checkbox"/> Stop Global Horn 4	Lock Channel: <input type="text" value="0"/>
Call>Select Engineers EAS Page	
<input checked="" type="checkbox"/> Allow Selection	Function: <input type="text" value="Both Attended & UnAttended"/>
<input checked="" type="checkbox"/> Allow Call	Call From ID: <input type="text" value="ECR"/>
<input checked="" type="checkbox"/> Allow Control	Level: <input type="text" value="None"/>
<input type="checkbox"/> Use MPC EAS Panel	

This permissions view enables or disables different functionality such as the possibility to reset the General engineer's alarm, or the possibility to acknowledge an alarm.

With the option "Reset Unattended State with Acknowledge" it is possible to switch to attended state when an alarm is acknowledged.

With the option "Accept unattended selection" it is possible to enable this workstation to allow the ECR / ER to go unattended.

Pressing Acknowledge will not put the system in attended state if no alarm is present.

Stopping the Global Horn 1 will also stop the buzzers on the LOP.

Copy Item

From:

Client 1

OK

Screen-1

From:

To:

Cancel

Client 2

Screen-1

Work Station - Network

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

Server Connection

Main Server Name:	SERVER_1
Main Server IP Address:	192 . 168 . 1 . 101
Backup Server Name:	SERVER_2
Backup Server IP Address:	192 . 168 . 1 . 102
Local Server Name:	
Local Server IP Address:	
Local Server Number:	<input type="button" value="▼"/>
Ping Time-out (msec):	500
DCOM Time-out (msec):	2000
<input type="checkbox"/> Use Independent Servers Login (DP)	
Independent Servers Switch Channel (DP):	0
Independent Servers Status Channel (DP):	0

These settings are used to connect CAMClient to IOServer.

Normally a system has a backup connection to achieve redundancy.

These settings are backup servername and backup server ip address.

Work Station - Groups

How to insert a workstation see: [Work Stations](#).

With this Groups View it is possible to show alarms from specific groups.

The alarms from the other groups are not visible on this client station

the following fields can be set:

The dialog shows two lists of groups. The left list contains 17 items, and the right list contains 30 items. Between the lists are buttons for moving items between them and dropdown menus for Demand Log, Show Alarms, and Ack settings.

Grp	Title
000	Default - All Groups
001	IO-module1
002	IO-module2
003	IO-module3
004	IO-module4
005	Water Monitor Serial
006	GAS Monitor Serial
007	VFD1 Serial
008	VFD2 Serial
009	GPS
010	Valves
011	Master Clock
012	Port Control
013	Analogue
014	Event
020	ScrubberLog
099	Diagnostics

Pos	Group	Title	Demand	Show Alarms	Ack	Horn
1	000	Default - All Groups	No	Both	Both	
2	001	IO-module1	No	Both	Both	
3	002	IO-module2	No	Both	Both	
4	003	IO-module3	No	Both	Both	
5	004	IO-module4	No	Both	Both	
6	005	Water Monitor Serial	No	Both	Both	
7	006	GAS Monitor Serial	No	Both	Both	
8	007	VFD1 Serial	No	Both	Both	
9	008	VFD2 Serial	No	Both	Both	
10	009	GPS	No	Both	Both	
11	010	Valves	No	Both	Both	
12	011	Master Clock	No	Both	Both	
13	012	Port Control	No	Both	Both	
14	013	Analogue	No	Both	Both	
15	014	Event	No	Both	Both	
16	020	ScrubberLog	No	Both	Both	
17	099	Diagnostics	No	Both	Both	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

To enable usage of a group on a specific workstation select the group at the left and press (right) button to place it in the list at the right.

The group will appear at the position that was selected beforehand (so first select an empty spot in the right list).

To remove a group select it at the right list and press the (left) button.

Logging groups via the "demand log" option can be enabled or disabled by selecting the group in the right list and changing the setting at the center.

If the setting is "No" the user will not be able to switch on Demand logging.

If the setting is "Yes" the user can select Demand Logging via the Group page and channels in that group will be written to the demand log file and to the demand log printer.

Alarms of each group will always be displayed if "Show Alarms" settings at the center of the dialog is set to "Both".

Else it will depend this setting and on the status of the system.

In unattended status alarms in groups with the "Unattended" setting will be displayed.

In attended status alarms in groups with the "Attended" setting will be displayed.



Via Channel option it is also possible to show the alarms of a specific group depending of the status of a digital channel.



To allow acknowledgement also the 4 options are possible:

1. Always allow acknowledgement of alarms of this group with "Both" setting
2. Allow acknowledgement of alarms of this group with "Attended" setting in attended status.
3. Allow acknowledgement of alarms of this group with "Unattended" setting in unattended status.
4. Allow acknowledgement of alarms of this group with specific "Channel" status on.

Work Station - Mimics

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

Nr.	Title	>	Pos	Mimic	Title	Ctrl	Level	Channel
001	Active Inhibit Page	<	1	020	Scrubber Page	Yes		
002	Alarm Summary Page	>>	2	024	Pump Settings	Yes		
003	Alarm Page Sorted on Report Type	<<	3	022	Monitor Systems	Yes		
004	Alarm Page		4	023	Demister Settings	Yes		
005	Diagnostics Page		5	025	Reports	Yes		
006	Group Overview Page		6	015	System diagnostics (Graphic)	Yes		
007	Group Page		7					
008	Inhibit Page		8					
009	Mimic Overview Page		9					
010	Skip Page		10					
011	Unavailable Page		11					
015	System diagnostics (Graphic)		12					
020	Scrubber Page		13					
021			14					
022	Monitor Systems		15					
023	Demister Settings		16					
024	Pump Settings		17					
025	Reports		18					
027	PID Control		19					
030	IOs Overview		20					
			21					
			22					
			23					
			24					
			25					
			26					
			27					
			28					
			29					
			30					
			31					

The mimics on the left side are all the graphics available on the system.

The mimics at the right side are the mimics that can be shown on the client workstation.

Per mimic it is possible to "Allow Control" or not.

If control is allowed objects on the mimic can be selected so the status of that object can be changed.

For instance a valve can be opened or closed.

Work Station - Miscellaneous

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

Time synchronization	
<input checked="" type="checkbox"/> sync Time with server	<input checked="" type="checkbox"/> Update time of zone on startup
<input checked="" type="checkbox"/> sync Timezone with server	Start TimeZ.ID Standard Time
Local Horn	
<input type="checkbox"/> Play wavefile	Sound
Specials	
<input checked="" type="checkbox"/> Quit client allowed	
<input checked="" type="checkbox"/> Use Free Configurable Icon Button	
<input type="checkbox"/> Use Password On Free Configurable Icon	
<input checked="" type="checkbox"/> Use Key Assignment Always	
<input type="checkbox"/> Change System MenuFont when Altlanguage Active	
System Shutdown	
System Shutdown Channel: 0	
User InterAction	
User InterAction Channel (Requires SwitchApp.exe): 0	
<input type="checkbox"/> CAMClient Only (without SwitchApp.exe)	
<input type="checkbox"/> Check KeyKlicks (without SwitchApp.exe)	
<input type="checkbox"/> Check Mouse Movement (without SwitchApp.exe)	
CAMClient Application	
CAMClient Application Number: 102	
CAMClient Application Title: CAMClient	
CAMClient Application Startup Page 0	
CAMClient Application Startup Delay (msec) 5000	
Activate Mimic via Channel	
Turn On Status Digital Channel: 0	
Mimic Number Analog Channel: 0	
Minimum accepted time before next update in ms: 0	
Get CPU Temperature	
Analog Channel:	

The local horn sound can be adjusted by selecting a file with the preferred melody.

In the miscellaneous view the time synchronization with the server can be set-up.

If the option is checked the client workstation will have the same time as the server has.

In this way time differences between the systems can be ruled out.

Update time zone on start-up is required for the CF (Compact Flash) MPC.

This MPC does not store the time zone changes in registry, and by enabling this option the software will store this instead.

When time zone update is enabled it is important to know if the system starts up with Daylight time saving or Standard.

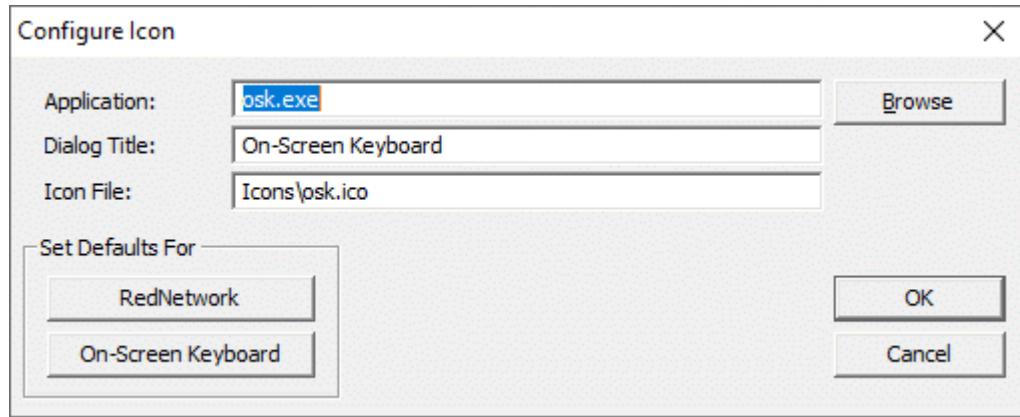
Set "Start TimeZ. ID" to Daylight Time when the system has Summer time, and set it to Standard when the System starts in Winter time.

If this option is set wrong, it will cause the system to change the time by 1 hour each time it starts up.

Conclusive:

Winter: Setup "Start TimeZ ID" to "Standard time"

Summer: Setup "Start TimeZ ID" to "Daylight time"



Add on-screen keyboard (OSK) by selection "User Free Configurable Icon Button".

Press Configure Icon button next to it.

Press "On-Screen Keyboard" button in the "Set Defaults For" area.

Press OK to close each dialog.

Work Station - Show Options

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

This "Show Options" enables or disables visible options on the client / workstation.

The dialog box contains several sections with various configuration options:

- General**:
 - Channel Tooltips
 - Downloadstatus window
 - Windows Screen Saver
 - Enable Alarm Popup Message (only at overlapped programs)
 - Display TagName
 - Display ChannelNr
 - Display TagName and ChannelNr
- Group/Mimic page**:
 - The number of seconds to remember a page:
 - Use and set timeout to handle a pickaction in sec:
 - Allow Use of Button Bar(s) with FullScreen Mimic Timeout to Reset use of bar in (0 for none) sec:
 - Enhance Mimic View. Minimum Line Length Allowed to Enhance (0 if None) in Pixels:
- EAS Mimic File Name.ext:**
- Carousel**:
 - Refresh interval time mimics in carousel mode (sec):
- Alarm Page**:
 - Enable Alarm Page
 - Enable Alarm Page (Sorted on Report Type)
 - Default Alarm Page
 - Default Alarm Page (Sorted on Report Type)
- Bottom Line(s)**:
 - Nr of Last Alarm Line(s):

With channel tooltip checked a small window will appear when the mouse cursor points at an alarm.
In this window the channel number is visible.

The Download status window pops up at the left bottom of the screen whenever a download is done.

The number of seconds to remember a page sets the time that is between two clicks on the group or mimic buttons, and decides whether the first page or the next page is shown. The first time the button is pressed, the first page is shown. If the button is pressed again within the time limit, the second page is shown.

Work Station - Printing

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

With the printing it is possible to enable printing from a client workstation.

The screenshot shows a configuration interface for a work station's printing settings. It is divided into three main sections:

- Page Print Settings**: Contains checkboxes for "Use printing on this client" (checked), "Print background (Applies for mimics only)" (unchecked), "Use color at new Alarm line" (checked), and "Use bold at new Alarm line" (checked). A "Color" button with a red square preview is present. A "Use Printer:" dropdown menu is also shown.
- Demand Log Settings**: Contains a checkbox for "Use demand log on this client" (checked) and a "Use Printer:" dropdown menu.
- Clear Printer Buffer Settings (Applies for WinPrint only)**: Contains a checkbox for "Use clear alarm printer buffer on this client" (checked) and a "Use Printer:" dropdown menu.

Work Station - Clustering / Panel-PC

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

Clustering	
Client Cluster:	STOP_CLUST
Panel-PC Configuration	
Set Dimming Channel:	100471
Set Horn Output Channel:	100470
Get Dimming Channel:	100475
Get Horn Output Channel:	100472
Get Digital Input 1 Channel:	100473
Get Digital Input 2 Channel:	100474

In the clustering the client can be joined in a cluster.

A cluster is a group of client workstations, LOP (Local Operator Panels) that will stop their horns when stop horn on one of them is pressed.

Example of PanelPC with Dimming

Panel-PC Configuration	
Set Dimming Channel:	100212
Set Horn Output Channel:	100201
Get Dimming Channel:	100211
Get Horn Output Channel:	0
Get Digital Input 1 Channel:	0
Get Digital Input 2 Channel:	0

Channels - (100200..100299)

100200	Channel:	100211	List	Tag Name:	100211
100201	Description:	SERVER 1 DIM INPUT			
100202	1131 Name:				
100203	Type:	Analog Input	Source:	Remote Data	Skip: No
100204	Remote Data:	<input type="checkbox"/>		Value Link	
100205	Sensor Fail:	None			
100206					
100207					
100208					
100209					
100210					
100211					
100212	Remote Data:	<input type="checkbox"/>		Status Link	
100213	Eng Unit Low:	0	Eng Unit High:	100	Eng Unit Type:
100214	Displ. Deviat:	1	Unit Conversion: None		
100215	Use Formula	<input type="checkbox"/>	Y = 1.000	X + 0.000	No Recalculation of Formula <input type="checkbox"/>
100216	Limit Type:	None			
100217					
100218					
100219					
100220					
100221					
100222					
100223					
100224					
100225					
100226					
100227					

Sometimes it's required to make this channel as retain channel.

Channels - (100200..100299)

100200	Channel:	100212	List	Tag Name:	100212
100201	Description:	SERVER 1 DIM OUTPUT			
100202	1131 Name:				
100203	Type:	Analog Input	Source:	Other Channel	Skip: No
100204	From Channel:	100211			
100205	Sensor Fail:	None			
100206					
100207					
100208					
100209					
100210					
100211					
100212	Eng Unit Low:	0	Eng Unit High:	100	Eng Unit Type:
100213	Displ. Deviat:	1	Unit Conversion: None		
100214	Use Formula	<input type="checkbox"/>	Y = 1.000	X + 0.000	No Recalculation of Formula <input type="checkbox"/>
100215	Limit Type:	None			
100216					
100217					
100218					
100219					
100220					
100221					
100222					
100223					
100224					
100225					
100226					
100227					

Sometimes it's required to make this channel as retain channel.

In that case after a restart of the marine-pc the current dimming is restored correct.

 PanelPC.ini - Notepad
File Edit Format View Help
INI File PanelPC service

```
[Settings]
OnScreenDisplay=1
UseMegaGuardDim=1
UseVirtualComPort=0
LocalTCPLogging=0
UseInverseDimming=0

[EXT_COMPort]
Enable=0
Port=1
Baud=4800
Databits=8
Parity=0
StopBits=1
Handshake=0
Timeout=1000

[Preset]
Day=75
Dusk=50
Dawn=10

[SERVER_1-Specific]
SyncDimmingToGroup=0
SyncLocalDimmingToGroup=0
DimmingGroup=0

[Virtual_comPort]
Port=9
Baud=4800
Databits=8
Parity=0
StopBits=1
Handshake=1
Timeout=10000

[SERVER_2-Specific]
SyncDimmingToGroup=0
SyncLocalDimmingToGroup=0
DimmingGroup=0
```

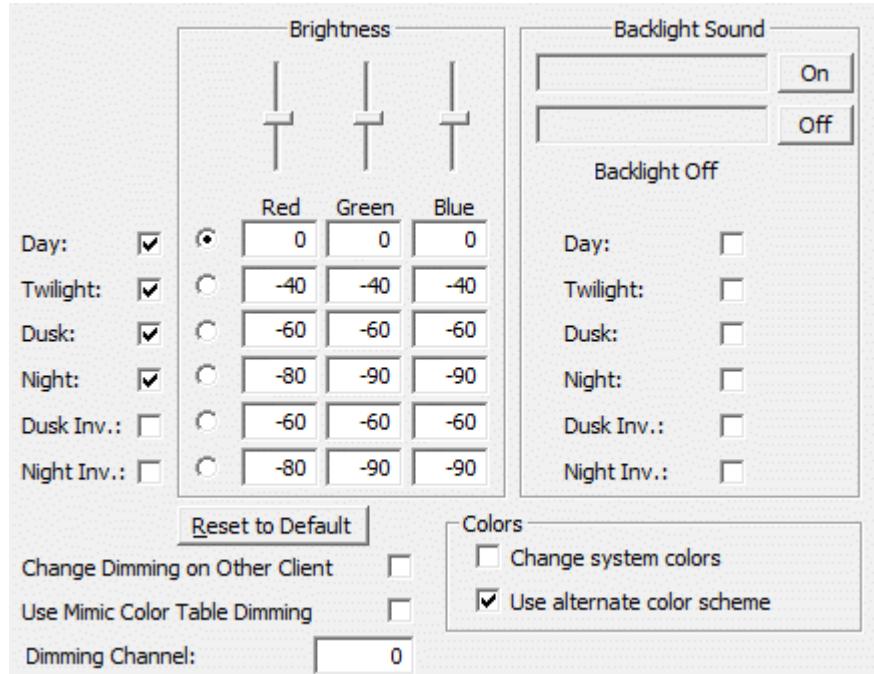
Take over these ini file settings, be aware there are several ini files.
"C:\Tools\PanelPC\PanelPC.ini"
"D:\Software\System\SysConfig\PanelPC.ini"
"D:\Software\System\SysConfig\Server_1_PanelPC.ini"
"D:\Software\System\SysConfig\Client_1_PanelPC.ini"
etc.

Work Station - Dimming

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

In the dimming view several settings can be changed to alter the dimming state to your own preferences.



By default all colours are dimmed equally.

"**Change system colors**" makes the system also change the Windows colors.

For example the grey menus will become darker grey when the system is dimmed.

If this option is turned off (unchecked) it will not change the Windows colors, which means that parts of the Client are not dimmed.

Another application should dim these colors instead (for bridge integration with other applications).

"**Use Default Color Schema**" can be switched off to use an alternate color scheme.

This alternate scheme has an extra dimming option ("Night inverted").

To switch back to daylight dimming (no dimming) double click on the logo at the right top.

To do this the tracker ball can be rolled up and to the right.

This can be done even when the display had been dimmed to a level where it became unreadable.

Work Station - General Page Permissions

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

Allow this client to use General Button Selection(s):

- 1. Skip Page/Inhibit Page
 - 1.1 Skip Page
 - 1.2 Inhibit Page
 - 1.3 Active Inhibit Page
 - 1.4 Unavailable Page
 - 1.5 Last Alarm Page
 - 1.6 Last SensorFail Page
 - 1.7 Report No Alarm Page
 - 1.8 Report No SensorFail Page
- 2. Carousel On/Off
- 3. Dimming
- 4. Watch Responsibility System
- 5. Display Contents Log File
- 6. Display Local/GMT Time
- 7. Use Alternative Language
- 8. Exit

By selecting these fields the corresponding pages are supported by general menu (F8).

Work Station - DPKeyboard

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

General							
<input checked="" type="checkbox"/> Use DP Keyboard							
X-Axis Channel:	103671		Buzzer Channel:	103677			
Y-Axis Channel:	103672		Dimming Channel:	103678			
Z-Axis Channel:	103673		Diagnostic Channel:	103679			
Digital Input 1 Channel:	103674		Digital Output 1 Channel:	103680			
Digital Input 2 Channel:	103675		Digital Output 2 Channel:	103681			
Digital Input 3 Channel:	103676						
Life Check Channel:	103687						
Buttons							
	SP	LED		SP	LED		
Man Joy Channel:	103660	1	103661	Man Surge Channel:	103660	6	103666
Auto Joy Channel:	103660	2	103662	Man Sway Channel:	103660	7	103667
Auto Hdg Channel:	103660	3	103663	Cancel Channel:	103660	8	103668
Auto Pos Channel:	103660	4	103664	Set Hdg Channel:	103660	9	103669
Ctrl Channel:	103660	5	103665	Set Pos Channel:	103660	10	103670
Arrow - Channel:	103660	11		Arrow + Channel:	103660	15	
Arrow Up Channel:	103660	12		Arrow Down Channel:	103660	16	
Arrow Left Channel:	103660	13		Arrow Right Channel:	103660	17	
Hold Channel:	103660	14					

To use this settings special hardware is required.

This is applicable for Dynamic Positioning (DP) systems.



The settings are corresponding the buttons and x,y,z input from this device.

Work Station - Joystick

How to insert a workstation see: [Work Stations](#).

the following fields can be set:

General			
<input checked="" type="checkbox"/> Use Joystick			
X-Axis Channel:	100213	Slider 1 Channel:	0
Y-Axis Channel:	100214	Slider 2 Channel:	0
Z-Axis Channel:	100215		
X-Rotation Channel:	0		
Y-Rotation Channel:	0		
Z-Rotation Channel:	0	Diagnostic Channel:	0
Buttons			
Button 1 Channel:	100201	Button 7 Channel:	0
Button 2 Channel:	100202	Button 8 Channel:	0
Button 3 Channel:	100203	Button 9 Channel:	0
Button 4 Channel:	100204	Button 10 Channel:	0
Button 5 Channel:	100205	Button 11 Channel:	0
Button 6 Channel:	100206	Button 12 Channel:	0

To use this settings special hardware is required.

This is applicable for Dynamic Positioning (DP) systems.

The Joystick is used at DP Simulator Applications.



The settings are corresponding the buttons and x,y,z input from this device.

Picture shows a joystick with only 6 buttons, but there are also joysticks like this with 12 buttons.

Special

-  Special
 -  Show Changes
 -  Check Database
 -  Print Labels
 -  Calc Processor Load
 -  Report Statistics
 -  Check Mimics - Channels
 -  Channel Cross Reference List

Several items are available to investigate more deeply in your configuration.

Report Statistics

Report a list of configured items, to investigate if no limits are exceeded.

For example number of retains can not be more than 400.

If someone configured more than 400 channel on a single processor, an error will be displayed here.

Categorize:

- Retained Channels
 - Panel Main/Sub Menu Names
 - Channels In Panel Menus
 - Channels In Panel Alarm/Monitoring Lists
 - Channels Received From Other Processors (RXP-List)
 - Channels Transmitted To Other Processors (RXP-List)
 - Channels In PAL1131 Reference List
 - Graphic Objects In PAL1131G
 - Multiple Channels Used In Average/D-Out
 - Special Channel Properties/Settings Sent To IO-Board

Result of Report Statistics

When item result is 'Err' (=Error) the item limit is exceeded: less items must be configured!

When item result is '---' the item value is zero.

----- Category: Retained Channels -----

----- Category: Panel Main/Sub Menu Names -----

----- Category: Channels In Panel Menus -----

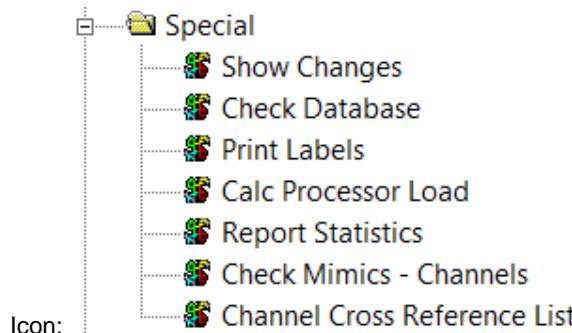
----- Category: Channels In Panel Alarm/Monitoring Lists -----

ProcNr	01	02	03	11	21	22	33	41	81	82	96
Local	---	---	---	---	---	---	57	42	---	---	---
Remote	---	---	---	---	---	---	---	---	---	---	---
Total	---	---	---	---	---	---	57	42	---	---	---
Max	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Result	OK										

----- Category: Channels Received From Other Processors (RXP-List) -----

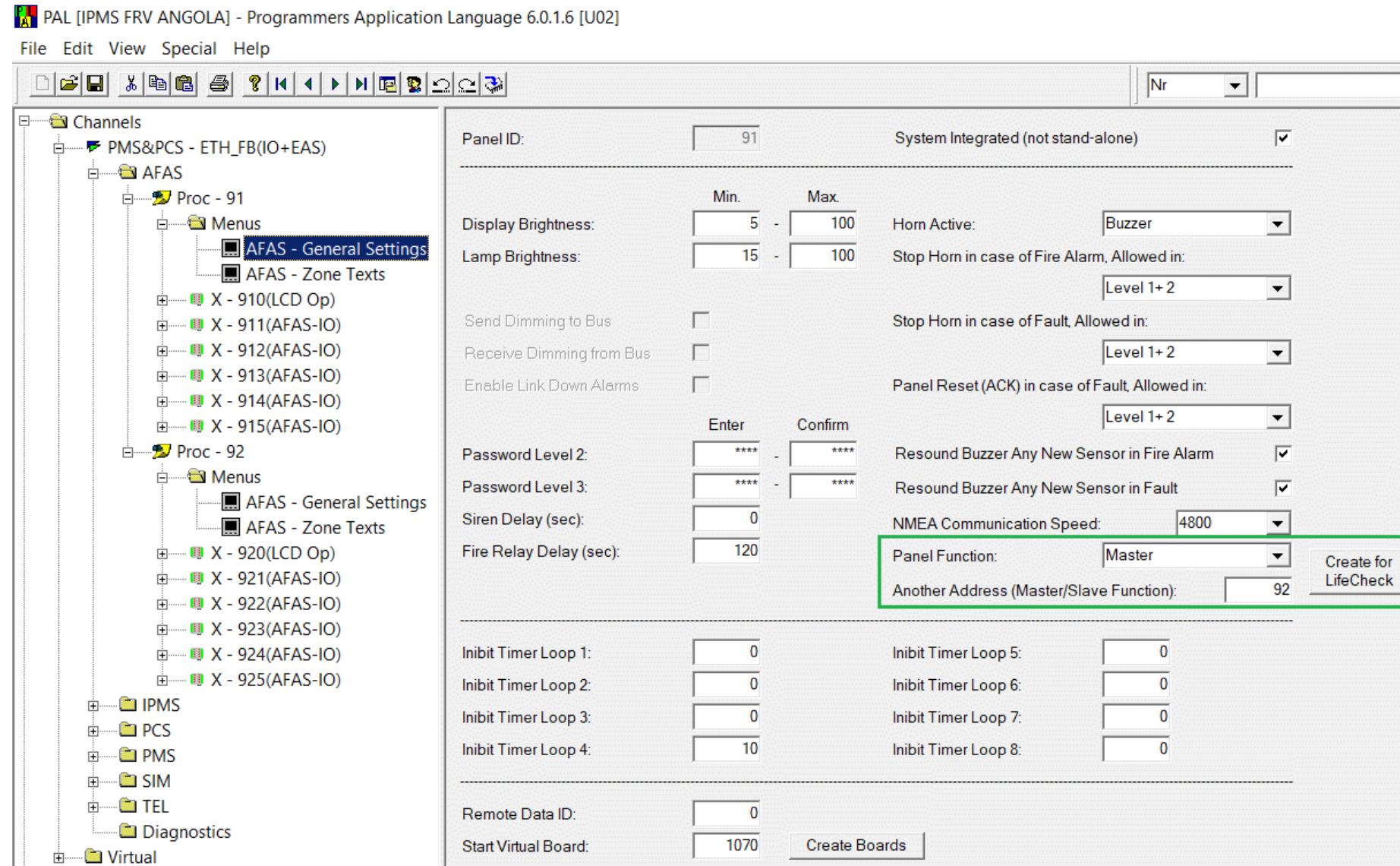
ProcNr	01	02	03	11	21	22	33	41	81	82	96
OtherChannel	---	---	---	3	2	1	---	---	---	---	---
Inhibitor	---	---	---	---	---	---	---	---	---	---	---
ColdJunction	---	---	---	---	---	---	---	---	---	---	---
FailDetect	---	---	---	---	---	---	---	---	---	---	---
UserTable	---	---	---	---	---	---	---	---	---	---	---
Limits	---	---	---	---	---	---	---	---	---	---	---
AlarmDelay	---	---	---	---	---	---	---	---	---	---	---
Others	---	---	---	---	---	---	---	---	---	---	---
Pulse	---	---	---	---	---	---	---	---	---	---	---
Multi-Channel	---	---	---	---	---	---	---	---	---	---	---
1131-List	---	---	---	8	9	22	---	---	89	---	---
Param Menu	---	---	---	---	---	---	---	---	---	---	---

Shortcuts



How to use LCD Panel with AFAS Slave

First configure a master AFAS panel for example XP91:



Adding a Slave Panel:

Create copy of master Panel (special, copy or move io-modules); for example XP92

Remark: we don't connect any hardware on Slave Panel

The AFAS I/O - module is only connected to XP91 (Master)

but in software we configure all the same, we received the required data from XP91 by ethernet

Panel ID:	<input type="text" value="92"/>	System Integrated (not stand-alone)	<input checked="" type="checkbox"/>															
<table border="0"> <tr> <td>Display Brightness:</td> <td>Min.</td> <td>Max.</td> <td>Horn Active:</td> <td>Buzzer</td> </tr> <tr> <td><input type="text" value="5"/></td> <td>-</td> <td><input type="text" value="100"/></td> <td></td> <td><input type="button" value="▼"/></td> </tr> <tr> <td>Lamp Brightness:</td> <td><input type="text" value="15"/></td> <td>-</td> <td><input type="text" value="100"/></td> <td>Stop Horn in case of Fire Alarm, Allowed in: <input type="button" value="Level 1+2"/></td> </tr> </table>				Display Brightness:	Min.	Max.	Horn Active:	Buzzer	<input type="text" value="5"/>	-	<input type="text" value="100"/>		<input type="button" value="▼"/>	Lamp Brightness:	<input type="text" value="15"/>	-	<input type="text" value="100"/>	Stop Horn in case of Fire Alarm, Allowed in: <input type="button" value="Level 1+2"/>
Display Brightness:	Min.	Max.	Horn Active:	Buzzer														
<input type="text" value="5"/>	-	<input type="text" value="100"/>		<input type="button" value="▼"/>														
Lamp Brightness:	<input type="text" value="15"/>	-	<input type="text" value="100"/>	Stop Horn in case of Fire Alarm, Allowed in: <input type="button" value="Level 1+2"/>														
Send Dimming to Bus	<input type="checkbox"/>	Stop Horn in case of Fault, Allowed in: <input type="button" value="Level 1+2"/>																
Receive Dimming from Bus	<input type="checkbox"/>																	
Enable Link Down Alarms	<input type="checkbox"/>	Panel Reset (ACK) in case of Fault, Allowed in: <input type="button" value="Level 1+2"/>																
Enter Confirm																		
Password Level 2:	<input type="text" value="****"/>	-	<input type="text" value="****"/>	Resound Buzzer Any New Sensor in Fire Alarm <input checked="" type="checkbox"/>														
Password Level 3:	<input type="text" value="****"/>	-	<input type="text" value="****"/>	Resound Buzzer Any New Sensor in Fault <input checked="" type="checkbox"/>														
Siren Delay (sec):	<input type="text" value="0"/>	NMEA Communication Speed:	<input type="button" value="4800"/>															
Fire Relay Delay (sec):	<input type="text" value="0"/>	Panel Function:	<input type="button" value="Slave"/>	<input type="button" value="Synch with Master"/>														
				Another Address (Master/Slave Function): <input type="text" value="91"/>														
Inhibit Timer Loop 1:	<input type="text" value="0"/>	Inhibit Timer Loop 5:	<input type="text" value="0"/>															
Inhibit Timer Loop 2:	<input type="text" value="0"/>	Inhibit Timer Loop 6:	<input type="text" value="0"/>															
Inhibit Timer Loop 3:	<input type="text" value="0"/>	Inhibit Timer Loop 7:	<input type="text" value="0"/>															
Inhibit Timer Loop 4:	<input type="text" value="0"/>	Inhibit Timer Loop 8:	<input type="text" value="0"/>															
Remote Data ID:	<input type="text" value="0"/>																	
Start Virtual Board:	<input type="text" value="1070"/>	<input type="button" value="Create Boards"/>																

As you can see, some fields are blocked because there are not applicable for AFAS Slave Panel.

Configure A-Out channels for life checks (example of channel 91117)

Board:	911	Special Selection														
Nr	TagName	Description		Type	Skip	Source	Ext.1	Ext.2	Report	Eng.Low	Eng.High	Eng.Ur	Nr Dec	Limit Typ.	Limit Low	Limit High
0	91100	LOOP 3 Zone Fault 1-16 (16 bits)		A-in	No	Remote Data	0		Status	-1000	100000000.000	3	None			
1	91101	LOOP 4 Zone Fault 1-16 (16 bits)		A-in	No	Remote Data	0		Status	-1000	100000000.000	3	None			
2	91102	LOOP 5 Zone Fault 1-16 (16 bits)		A-in	No	Remote Data	0		Status	-1000	100000000.000	3	None			
3	91103	LOOP 6 Zone Fault 1-16 (16 bits)		A-in	No	Remote Data	0		Status	-1000	100000000.000	3	None			
4	91104	LOOP 7 Zone Fault 1-16 (16 bits)		A-in	No	Remote Data	0		Status	-1000	100000000.000	3	None			
5	91105	LOOP 8 Zone Fault 1-16 (16 bits)		A-in	No	Remote Data	0		Status	-1000	100000000.000	3	None			
6	91106	Ethernet Port A No Communication		D-in	No	Remote Data	0		Alarm	Open						
7	91107	Ethernet Port B No Communication		D-in	No	Remote Data	0		Alarm	Open						
8	91108	PARAMETER HANDLING AUTO DISCOVERY		A-in	No	Remote Data	0		Status	0	100		0	None		
9	91109	ANY NEW SENSOR IN ALARM		A-in	No	Remote Data	0		Status	0	100		0	None		
10	91110	USED BOARD 1.8		A-in	No	Remote Data	0		Status	0	256		0	None		
11	91111	SIREN OUTPUT DELAY		A-in	No	Remote Data	0		Status	0	255		0	None		
12	91112	FIRE ALARM DELAY		A-in	No	Remote Data	0		Status	0	255		0	None		
13	91113	ANY NEW ALARM IN MACHINERY AREA		A-in	No	Remote Data	0		Status	0	100		0	None		
14	91114	LCD AND LAMP BRIGHTNESS SETTINGS		A-in	No	Remote Data	0		Status	0.000	4294967.295	3	None			
15	91115	ANY NEW SENSOR IN FAULT		A-in	No	Remote Data	0		Status	0	100		0	None		
16	91116	BUZZER FOR SENSORS SETTINGS		A-in	No	Remote Data	0		Status	0.000	4294967.295	3	None			
17	91117	LIFECHECK TO SEND		A-ou	No	IEC - 1131				0	9999999	0				
18	91118	WORKSHOP REMAINING TIME		A-in	No	IEC - 1131			Status	0.0	35.0	MIN 1	1	None		
19	91119	FIRE DETECT SYS SLAVE PANEL NOT PRESENT		D-in	No	IEC - 1131			Alarm	Open						
20	91120			Afas	Yes	Not Installed			Alarm	0.0	128.0		1	H/VH	45.0	55.0
21	FAS 1.001	801 - SMOKE DET 1.001		Afas	No	Hardware Input			Alarm	0.0	128.0		1	H/VH	45.0	55.0
22	FAS 1.002	801 - MAN CALL POINT 1.002		Afas	No	Hardware Input			Alarm	0.0	128.0		1	H/VH	45.0	55.0
23	FAS 1.003	802 - SMOKE DET 1.003		Afas	No	Hardware Input			Alarm	0.0	128.0		1	H/VH	45.0	55.0

these life check channels needs to added to PAL1131

Processor Number : 91																	
General Settings		Miscellaneous Table		Board Diagnostics		Channel Cross Reference List		1131 Reference List		1131G Object List							
CycleTime-out(ms) :	100	<input type="button" value="Check Size"/>	Add All Missing Channels														
Use Local Channel Numbering	<input type="checkbox"/>	Start PAL 1131															
Number of items used:	121	<input type="button" value="Check List"/>	Create All Remote XP List														
Nr	Channel	TagName	Description			Dir	Variable			Type	Use 1131						
82	91114	91114	LCD AND LAMP BRIGHTNESS SETTINGS =>			LCD AND LAMP BRIGHTNESS SETTING	FINT			<input checked="" type="checkbox"/>							
83	91115	91115	ANY NEW SENSOR IN FAULT =>			ANY NEW SENSOR IN FAULT	INT			<input checked="" type="checkbox"/>							
84	91116	91116	BUZZER FOR SENSORS SETTINGS =>			BUZZER FOR SENSORS SETTINGS	FINT			<input checked="" type="checkbox"/>							
85	91117	91117	LIFECHECK TO SEND <=			LIFECHECKTOSEND	INT			<input checked="" type="checkbox"/>							
86	92117	92117	LIFECHECK TO SEND =>			LIFECHECKTORCV	INT			<input checked="" type="checkbox"/>							
87	91074	91074	LOOP 1 Zone PreAlarm 1-16 (16 bits) =>			ZONE PREALARMS[0..7]	DWORD			<input checked="" type="checkbox"/>							
88	91075	91075	LOOP 2 Zone PreAlarm 1-16 (16 bits) =>			ZONE PREALARMS[1]	DWORD			<input checked="" type="checkbox"/>							

here is example of PDU LifeCheck in PAL1131

File Edit View Insert Project Tools Window Help

Modbus-UDP

LIFECHECK

XP91

POU

- ▶ INIT_FAS
- ▶ HANDLE_ACK
- ▶ SYSTEM_GET_BOARD_
- ▶ SYSTEM_SET_IOP_PRC
- ▶ SYSTEM_REQUEST_PR
- ▶ SYSTEM_CHECK_REQU
- ▶ SYSTEM_GET_REQUES
- ▶ REQUEST_BOARD_AUT
- ▶ SYSTEM_READ_PROPE
- ▶ READ_BOARD_DIAG
- ▶ HANDLE_STOPHORN
- ▶ SYSTEM_TOGGLE
- ▶ HANDLE_NEW_FIREALA
- ▶ HANDLE_PB
- ▶ HANDLE_LEDS
- ▶ SYSTEM_EXTRACT_BIT
- ▶ HANDLE_RESOUND
- ▶ SYSTEM_SET_IOP_VAL
- ▶ SYSTEM_GET_IOP_VAL
- ▶ DETECT_NEW_ALARM
- ▶ SYSTEM_COPY_BIT
- ▶ DETECT_NEW_ALARM_
- ▶ RESYNC_SOUNDERS
- ▶ CHECK_PENDING_FIRE_
- ▶ SYSTEM_COPY_BYTE
- ▶ CHECK_PENDING_SIREI
- ▶ SYSTEM_EXTRACT_BY
- ▶ LIFECHECK
- ▶ WORKSHOP_TIMER
- ▶ DS_RELAY_FIRE

POU Resources Types

XP91.LIFECHECK :: program (ST)

```
001 PROGRAM LIFECHECK
002 VAR_EXTERNAL (*$AUTO*) END_VAR
003
004 VAR
005 CT: TIME;
006 deltaCT: TIME;
007 lastSendCT: TIME;
008 lastRcvCT: TIME;
009 oldLifecheckToRcv: INT;
010 END_VAR
011
012 CT := CUR_TIME();
013 deltaCT := CT - lastSendCT;
014 IF deltaCT > T#1s THEN
015   lastSendCT := CT;
016   lifecheckToSend := lifecheckToSend + 1; // r
017 END_IF
018
019 IF oldLifecheckToRcv <> lifecheckToRcv THEN
020   lastRcvCT := CT;
021   MASTER_SLAVE_ALARM := false; // alarm off
022 ELSE
023   deltaCT := CT - lastRcvCT;
024   IF deltaCT > T#5s THEN
025     MASTER_SLAVE_ALARM := true; // alarm on
026   END_IF
027 END_IF
028 oldLifecheckToRcv := lifecheckToRcv;
029
030 END_PROGRAM
```

Lifecheck channels needs to sent to another processor, in this example (older software) multicast 61 is used; in the new versions use multicast 51.

PAL [IPMS FRV ANGOLA] - Programmers Application Language 6.0.1.6 [U02]

File Edit View Special Help

The screenshot shows the configuration of a Multicast Group for Processor 91. The left sidebar contains a tree view of system parameters, with '61 - AFAS IOSERVER' selected. The main panel displays the following fields:

- Group Number: 61
- Description: AFAS IOSERVER
- IP Address: 239 . 255 . 239 . 253
- Port: 502
- Add to VLAN Configuration:

Below these fields is a section titled "Add/Delete Processors" with the following controls:

- Type: Processor
- Processor:
- Processor list: 91 - AFAS Rx/Tx, 92 - AFAS Rx/Tx

At the bottom is a table titled "VLAN Configuration for Routing Multicast Groups":

Nr	Multicast Group Source	Automatic VLAN Multicast Group
1		
2		
3		
4		

PAL [IPMS FRV ANGOLA] - Programmers Application Language 6.0.1.6 [U02]

File Edit View Special Help

The screenshot shows the configuration of a channel for Processor 91. The left sidebar contains a tree view of channels, with 'Proc - 91' selected. The main panel displays the following information:

Processor Number : 91

General Settings | Miscellaneous Table | Board Diagnostics | Channel Cross Reference List

Create List - Remote XP List

- 91117 LIFECHECK TO SEND
92 1131 List Multicast - 61

PAL [IPMS FRV ANGOLA] - Programmers Application Language 6.0.1.6 [U02]

File Edit View Special Help

92117 LIFECHECK TO SEND		
91	1131 List	Multicast - 61

see screenshot of Processor Position table
 load lcd XP91 with app-lcd-afas.bin (master)
 load lcd XP92 with app-lcd-afas-slv.bin (slave)

PAL [IPMS FRV ANGOLA] - Programmers Application Language 6.0.1.6 [U02]

File Edit View Special Help

Group	μP	Panel	SwID	Board 1	Board 2	Board 3	Board 4	Board 5	Board 6	Board 7	Board 8
AMS	1	XP-2E	STD	24-Ai	36-Dio	36-Di	NoHW	None	None	None	None
AMS	3	XP-2E	STD	24-Ai	36-Dio	36-Dio	36-Di	36-Di	36-Di	NoHW	NoHW
AMS	4	XP-2E	STD	24-Ai	36-Dio	36-Dio	36-Di	NoHW	NoHW	NoHW	NoHW
AMS	5	XP-2E	STD	24-Ai	36-Dio	36-Dio	36-Di	NoHW	NoHW	NoHW	NoHW
AMS	6	XP-2E	STD	24-Ai	36-Dio	36-Dio	36-Di	36-Di	36-Di	24-Ai	NoHW
AMS	7	XP-2E	STD	24-Ai	36-Dio	36-Dio	36-Di	36-Di	36-Di	NoHW	NoHW
AFAS	91	LCD Op	AFAS	AFAS-IO	AFAS-IO	AFAS-IO	AFAS-IO	None	None	None	None
AFAS	92	LCD Op	AFAS-SL	AFAS-IO	AFAS-IO	AFAS-IO	AFAS-IO	None	None	None	None

LCD Slave software has special functions in firmware

1. It will receive and take over channel data from Master
 This is sent with Multicast 61 (all IOServer data) also multicast 61/51 with lifecheck data
 Channel data from XP91 (range 1-120); XP92 will take it over from the master
 This includes channels 38, 40-42, 68-105, 109, 113, 115
2. XP91 channel value/status data from number 120 and above (AFAS/Apollo sensors) is put in XP92 on same position
 When this data is acknowledged on XP91 (Master), this will be automatically acknowledged on XP92 (Slave)

3. Most of the LCD AFAS configuration pages are not available on Slave Panel; Available pages on Slave Panel are:

- Zone Page
- Zone Fault Page
- Alarm Page
- Set Time Page
- Dimming Page
- Channel Page
- Horn Setup Page
- Buzzer for Sensor Setup Page

Product Version Information



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PAL Help

product: MEGA-GUARD E-Series

versions: 6.0.1.18

It also possible to see version information inside Windows Explorer:

- go to Windows Explorer (Start button, Programs, Accessories, Windows Explorer)
- browse to an executable file like 'Pal.exe'
- select file by using left mouse button
- press right mouse button, a popup menu will be shown
- select properties
- go tab-page 'Version'
- click on 'Product Version' inside 'Item name' List Box
- Edit Box 'Value' shows current product version of executable file