FST-Controller

Software Version History

About this document

This document provides an overview of the update history of the FST software.

The purpose of this document is to document the additional features, functional changes and error corrections with respect t o the individual software updates of the FST controller software.

FST-Software version V1.100-0449 (10/03/09)

New Feature 1: Door Lock Type: new option for glass doors with Kronenberg door lock (with 100% duty cycle).
Doors \ Doors-Basic \ Door-Lock Type = 2

This option can only be used on doors with endswitches.

New Feature 2: Emergency Stop switch in car: when this switch is misused as a loading switch, the re-levelling function is disabled. It is likely in a hydraulic lift, that eventually the car will sink beyond the car level zone, which will force the doors to close automatically. To prevent this, a new option is added which extends the maximum car position with open doors during <u>emergency-stop</u> to cover the entire software-zone.
Positioning \ Global \ Miscel-D1 = 1<u>0</u>000000
(Hidden menus must be set visible to access this menu)

The software zone (**Positioning \ Floor \ Zone Sw. UP, Zone Sw. DOWN**) can now be used to shorten the allowed door opening zone if required.

New Feature 3: ESM mode: Energy Saving Management mode (formally ECO mode) "Buffer-Park" facility for hydraulic lifts added. During the ESM sleep phase, the car is gently driven onto the buffers, where it sits until the next call is requested. An optional low pressure control function prevents the oil from draining completely from the main piston.
ESM Settings\Buffer-Park = YES/NO
ESM Settings\B-Park Pump = YES/NO
ESM Settings\B-Park-Run-on = 0..10 sec

New Feature 4: ESM Mode: EAZ text message issued "Please Wait", during the warmup phase between sleep and normal operation.

New Feature 5: I/O input port "Clear Calls and Direction" function given additional option to invoke car stop in next possible floor.
I/O port RAW = 000n1FF2 or **000n1FF3**

if car is driving when port is activated:
where n=0, last trip will continue, but doors will not open
n=1, lift will stop in next possible floor, doors will not open.

New Feature 6: SAM Speech Module: "floor locked" message added for unsuccessful call entry when floor is locked in Bank Control mode, or via LMS remote control. Previously only for I/O port sourced floor-locking.

New Feature 7 New signal output – manual door open
SIGNAL manual door open: port value = 00003F84 or 00003F85

Change 1: FST LCD, Line-3: the positioning information display now only shows the KO/KU status for systems with incremental encoder.

Change 2: DCP Drive menu: access now blocked if password access level not "HIGH" or better

Corrected 1: Drive Inhibit Mode: LMS-coordinated drive inhibit function corrected.

Corrected 2: Manual Doors: during inspection or auxiliary mode, when starting a drive, the car doors will be closed automatically without waiting for the manual door to close. Now corrected; an open manual door prevents the car doors from being closed.

Corrected 3: Door-Lock Type-1: following a stop in shaft, or during inspection/auxillary

operation, if the doors relax to the open position, when it comes to the next drive, the door-cam is not energized before closing the doors, as the door-lock type-1 specification requires. Now corrected.

FST-Software version V1.100-0448 (16/02/09)

New Feature 1: New Input I/O port for Rope-Tension-Monitoring (Henning Weightwatcher):
> **I/O port RAW = 000032F2** or **000032F3**
An active input generates the following error message:
> **ROPE-TENSION-ERROR (error #58)**

New Feature 2: New Input I/O port for setting the Loading-Mode:
> **I/O port RAW = 000n33F2** or **000n33F3**

where n = 00RD
> D: door side, 0=A 1=B
> R: reload timer eveythime this signal is re-activated

eg. 000033F2: NO input, door-A, toggle on/off
     000333F3: NC input, door-B, activate/reload timer

New Feature 3: Remote Entry (Penthouse Control): new option allows use of the Remote-Entry facility without requiring an Empty-Car signal.
> **Config \ Special-Functions \ Remote-Entry \ Must Be Empty** = YES/NO

New Feature 4: LCS Load Control System: LCS message timeout monitoring facility added. If a LCS is registered as the Load Weighing Device, and 60secs transpire without a LCS weight message being received, the following error is generated:
> **LCS DATA MISSING (error #59)**

FST-Software version V1.100-0447 (19/01/09)

New Feature 1: Bank Control: new option added which forces activation of user group #0 when the car approaches the destination floor with a passenger in the car. This is used to allow a single trip only, preventing a return trip, for passengers leaving a secure zone for a shared secure/public floor.
> **Config \ Special-Functions \ Bank-Control \ Control = 10000000**

New Feature 2: DRM: new Re-levelling DRM failure added for hydraulic re-levelling attempts that take longer than 60sec to complete. Previously DRM-MOTOR was used (along with other fault sources).
> **DRM-RELEVEL.TIMEOUT (error #57)**

Changed 1: Start/Stop Timers: used for:
a) I/O port output (**xxyy3884** or **xxyy3885)** where xx=STOP, yy=START time
b) ESM (ECO) mode "Start" and "Stop" times
can now be set to start on one day and stop on the next day. Eg. Start = 19:00, Stop = 06:00, the function will activate from 19:00 through 06:00 the next morning.

Corrected 1: Lift-Off mode with a Pseudo Floor: If after a lift-off drive to a Pseudo-Floor, an exception with higher priority occurs, eg. Emergency-Stop or DRM, the lift will afterwards again drive to the lift-off "home" floor, before returning to the pseudo floor. The need for these unnecessary drives has now been removed.

Corrected 2: 4-valve hydraulic and ASV (Pawl Control): prevent the under-pressure valve from activating the pump, when the car is not seated.

Corrected 3: LCS floor compensation table generation: negative weight values now handled correctly.

FST-Software version V1.100-0446 (16/12/08)

New Feature 1: Special Door Zone: an additional facility allowing precise control to limit door

opening under _all_ circumstances to within a narrow zone aorund the floor level.
System \ Factory Menu \ Settings \ Spec. Door Zone = +/- 255mm

Note: a value of 0mm cancels this function.

FST-Software version V1.100-0445 (03/12/08)

New Feature 1: 4-valve hydraulic and ASV (Pawl Control): New option added to define a window around the level position in which the car must sit within, to qualify as "seated". This is in addition to the low-pressure valve input. This can be used to prevent problems with unreliable pressure switch operation.
Drive \ Pawl-Control \ Seating Zone = +/- 30mm

Note: a value of 0mm cancels this function.

New Feature 2: Auxillary Brake Control for DCP03 drives: new auxillay brake option for DCP03 drive systems only. A maximum monitoring time is used by the software to monitor the brake activation/deactivation.
Drive \ Aux.Brake Max. Time = 0..2999ms
Note: a value of 0mS cancels this function.

A new I/O port is required – which switches 0v when the brake opens.
I/O port RAW = 000031F2 or **000031F3**

Change 1: SIGNAL - Fire Recall Drive Complete: the output SIGNAL (I/O port RAW **00002284** or **00002285)** now activates when at least one door has fully opened.

Change 2: Menu text change: **Doors \ Doors-Basic \ Close to Drive** now changed to "**Prio-DC"** due to usage confusion. When turned on, this function requires that during Car-Priority and VIP modes, the DC button must be pressed continuously for the doors to close fully in preparation for a drive.

Change 3: Drives with Intermediate speed: change made to prevent the current intermediate speed drive being extended due a target floor change. This could happen, for example, if the GST group controller decides to withdaw a given landing call from a particular car travelling at int. speed V2, and re-assign a new distant target to the same car. If the distance to the new target floor would normally be made with the faster V3 speed, rather than V2, the lift will now make a normal stop in the original destination floor, before restarting with the new target drive at the higher speed. Previously the re-targeted drive would have be made with the intermediate speed.

Correction 1: SIGNAL - Car Reserved: the output SIGNAL (I/O port RAW **00002B84** or **00002B85**) now remains active until the ADR-Enable status is restored.

Correction 2: EAZ scrolling text message "Reserved" now works correctly with the "Door Open" scrolling text message. The Car Reserved message now remains shown until the ADR-Enable status is restored.
"Reserved" message enable
System \ Factory Menu \ Settings \ Miscel-8 = 00010000
"Door Open" message enable (Note English text since FST V1.100-0450 only)
System \ Factory Menu \ Settings \ Miscel-6 = 00010000

FST-Software version V1.100-0444 (04/11/08)

Correction 1: Problem with "soft" Lift-Off option since V1.100-0442 Correction-1 now fixed.
FST-Software version V1.100-0443 (03/11/08)

Change 1: Emergency End Switch: minimum detection time reduced from 1.0sec to 0.1 sec.

Change 2: Door Open Button: DO now only applied for those doors not yet closed, if the lift is preparing to drive. Prevents reversal of already closed door(s).

Change 3: Door Zone: the software door zone (**Positioning \ Floor \ Zone Sw. UP, Zone Sw. DOWN**) can now be used to shorten the allowed door opening zone if required.

Correction 1: DRM-I/O-Port: prevent unwanted activation of DRM-I/O-Port due to Anti-drop protection, which can occur if the door is reversed under certain conditions while preparing to drive.

FST-Software version V1.100-0442 (28/10/08)

New Feature 1: LCS menu and operation changes made: new sub menu:
    Config\Weight Sensor\LCS-Settings\Auto-Adjustment\ …
      > …\Chain Compensation = OFF
              Using-Floor-Table*
              Dynamic - per drive
      > …\ Floor Values* = (floor/offset table)
      > …\Generate Table* = YES/NO
      > …\Drift Compensation = YES/NO
      > …\Auto-Zero: <30kg = ON/OFF

    This feature requires the LCS software V09 or higher!

Correction 1: Lift-Off mode: if the "turn-in-shaft" switch is used (**System \ Factory Menu \ Settings \ Miscel-5 = 00100000)** the doors will not reclose after final arrival in the lift-off floor. Now corrected.

FST-Software version V1.100-0441 (22/10/08)

New Feature 1: I/O port floor locking: new option for added security ensures that the doors will never open even if floor locking is activated when the drive to this floor has already started.
    System \ Factory Menu \ Settings \ Miscel-8 = 01000000

    Note: when using this feature, please make sure that the other floor locking security switch is _not_ set **Factory Menu \ Settings \ Miscel-1 = 01000000**

New Feature 2: Menu Line-3 Diagnosis mode: for the LCS Load Control System, a new display line has been added to show the raw loading value (ADC reading).
    LCS nnnnnnnn E0 F0 O0 (where nnnnnnnn=raw ADC value)

FST-Software version V1.100-0440 (09/10/08)

New Feature 1: "Car Here" display added to EAZ-256 displays:
    System \ Factory Menu \ Settings \ Miscel-8 = 00010000

Change 1: Maximum menu times for **Doors \ Doors-Selective \ Min.Wait Land** and **Min.Wait Car** now extended to 180 secs

Corrected 1: "Car-Here" display output delay removed

Corrected 2: Reduced pit clearance, Apron control: Relevelling action re-affirmed in case safety circuit break occurs when apron extends.

FST-Software version V1.100-0439 (22/09/08)

New Feature 1: New I/O input port: doors set to normally-open mode.
    I/O port RAW =000n30F2 or 000n30F3
     where "n" is a bit field .CBA to select the door(s)

eg. 000130F2 is NO input, keeps door A open
000330F3 is NC input, keeps doors A and B open

Change 1: Liftboy mode: doors now automatically set to normally-open mode upon entering Lift-Mode operation

Correction 1: Decouple-able doors: prevent use of DC button closing doors before they have fully opened when re-coupling the door.

FST-Software version V1.100-0438 (16/09/08)

New Feature 1: New Signal output: Loading Function active
SIGNAL Loading Function: port value = 00003D84 or 00003D85

New Feature 2: Non-Collective call mode: new option to display scrolling text "RESERVED" on landing EAZ-256 indicators when car is occupied/busy.
System \ Factory Menu \ Settings \ Miscel-8 = 00001000

FST-Software version V1.100-0437 (15/09/08)

New Feature 1: Loading Function: new program #3 added, allows the user to define the loading operation from all available characteristics.
Config.\Special Functions\Loading Function\Program Nr. = 0..3
Config.\Special Functions\Loading Function\Options = 76543210 (Bits)

Bit0 (00000001) = 0: apply loading function to selected door (force open)
= 1: apply loading function to already open door(s)
Bit1 (00000010) = 0: non-collective car calls
= 1: collective car calls
Bit2 (00000100) = 0: renewed loading button press, cancels loading mode
= 1: renewed loading button press, reloads loading timer
Bit3 (00001000) = 0: DO button ignored
= 1: DO button activates loading mode
Bit4 (00010000) = 0: photocell breakage ignored
= 1: photocell breakage activates loading mode
Bit5 (00100000) = 0: ignored
= 1: photocell activation only when doors are open
Bit6 (01000000) = 0: ignored
= 1: photocell breakage reloads loading timer
Bit7 (10000000) = unused

Supervisor option: during loading mode, always open all car doors (including those without floor opening)
System \ Factory Menu \ Settings \ Miscel-8 = 00000010

New Feature 2: Fireman options SIA-Canton Zurich: option to only allow transition fire-recall (phase-1) to fireman-service (phase-2) if fire-recall signal originated from ADM keyswitch, and not the Building Systems input (I/O port)
Config. \ Fireman-Options \ Only ADM->Fireman = YES/NO

Correction 1: Fireman options: **Fire->Fireman(ADM)** automatic facility does not allow entry to fireman-service mode if the lift is already in fire mode (phase-1) in the ADM's registered floor. Now corrected

FST-Software version V1.100-0436 (10/09/08)

New Feature 1: Door Pre-Closure Delay option (FSM2 only)
Doors \ Doors-Basic \ PreClose Delay = 0.0..20.0 secs
Doors \ Doors-Basic \ PreClose O/P = YES/NO

Can be used to drive a lamp or siren in the car to warn of imminent door closure. Output on FSM2 K1 (door-A) or K5 (door-B) if the **PreClose O/P** option is set, otherwise the I/O SIGNAL ports for door closing may be used:

SIGNAL door-A closing: port value = 00002384 or 00002385
SIGNAL door-B closing: port value = 00002484 or 00002485
SIGNAL door-C closing: port value = 00002584 or 00002585

This feature requires FSM2 V17 (FSM02117) software or later.

New Feature 2: Drive type Giehl-AZFR: new control for down-inspection uses K9 exclusively to prevent sudden dip when safety circuit is opened.

Correction 1: Call Mode Non-Collective for lifts without car doors: when the car arrives to answer a landing call, no car calls are accepted until the Configuration \ Car-Call-Priority-Timer has expired. Now corrected, calls can be entered immediately.

FST-Software version V1.100-0435 (02/09/08)

New Feature 1: New signal outputs – door (A/B/C) opening.
SIGNAL door-A opening: port value = 00003A84 or 00003A85
SIGNAL door-B opening: port value = 00003B84 or 00003B85
SIGNAL door-C opening: port value = 00003C84 or 00003C85

Note: Once the door has fully opened the signal is turned off.

FST-Software version V1.100-0434 (21/08/08)

New Feature 1: Car Ventilator: new remote control function for temporary disable via LMS-24/7

Change 1: GST menu: automatic return to FST base display after GST menu is exited

Correction 1: Auxillary control: DC button now disabled

Correction 2: Menu: correction to prevent overwriting of other parameters when 2 or more doors are set in DOORS \ DOORS-BASIC. Errors possible were:
a) changing **Doors \ Doors-Basic \ SS-CurtainWait**, overwrites
Config \ Car-Operate-Panel \ Close=A+B
b) changing **Doors \ Doors-Selective \ Manual-Door-Debounce,** overwites
Config \ Special-Functions \ Bank-Control \ Enabled

FST-Software version V1.100-0433 (24/07/08)

New Feature 1: Force Car Light Off function: using an I/O port the car light can be turned off regardless of the normal operation:
I/O port RAW = 00002FF2 or 00002FF3

FST-Software version V1.100-0432 (22/07/08)

New Feature 1: LCD Line-3 diagnosis mode: in addition to the keyboard access to ths mode using **S+←+→** keys, the diagnosis mode can be accessed from the menu as follows:
Service \ Line-3: Info-Display

Change 1: Learn Drive:
a) improved Zone/KO/KU input signals debouncing during the learn drive.
b) new diagnostic features in case of unsucessful learn drive.
c) now detects and reports wrong encoder direction for learn and calibration drives.
d) systems with absolute encoders can now also be "Learn"ed

Change 2: Zone-B debounce time: this parameter now prevented from being smaller than 5mS

Change 3: " REVISION TOO FAST" error: now made less sensitive – overspeed detection must continue for longer before triggering error

Change 4: LCS (Load Control System): internal dynamic offset value now cleared during the L1 calibration to prevent weight offset remaining after calibration.

Correction 1: Fireman service AS-1735 (Australia): prevent unwanted automatic door opening following repeated fast DO/DC button activity.

FST-Software version V1.100-0431 (24/06/08)

New Feature 1: RIO: new option added to increase the rate at which the LON-bus based RIO modules get updated. This can be used to improve the standard response time of critical remote signals (from 0.25sec to 0.05sec) – but also increases the bus traffic considerably, and therefore should not be used in a group of FST's.
System \ Factory Menu \ Settings\Miscel-8 = 00001000
(Hidden menus must be set visible to access this menu)

New Feature 2: Drive interface for Schindler BIODYN-XX added
Drive \ Regulator-Type = SCHINDLER BIODYN-XX

Change 1: Anti-Nuisance Empty-Car: now changed to allow one single car call (previously allowed none when car was empty).

Correction 1: I/O Ports: Remote port signals: prevent currently set remote port signals getting reset when menu settings are saved.

FST-Software version V1.100-0430 (13/06/08)

New Feature 1: Bank Control: new display on FST LCD during Bank Control Mode. "Bnn" in the middle of line-4, where "nn" is the currently active user group.

New Feature 2: LCS (Load Control System): new automatic measurement drift adjustment feature added. Only intended for use in passenger lifts in which unattended loads are not left for >2 hours.
Config \ Weight-Sensor \ LCS-Settings \ Auto-Drift Adjust

Correction 1: SAM message: "you are not authorised to use this floor" sent multiple times in certain constellations. now corrected.

Correction 2: "Lift Reserved" display corrected in FST V1.100-0428 / Correction-2, now works correctly for both manual and automatic doors.

Correction 3: Iprio "one-shot" option V1.100-0424: correction prevents IDR-Freigabe being locked outside IPRIO context

FST-Software version V1.100-0429 (08/05/08)

New Feature 1: LCS (Load Control System): chain/trailing-cable compensation mode added.
Config \ Weight-Sensor \ LCS-Settings \ Auto-Compensation
Config \ Weight-Sensor \ LCS-Settings \ Options = xxxxxxCD
C=clear compensation offset every time lift returns to bottom floor
D=display measured weight continuously during drive ("L=xxxk Kg")

This feature requires LCS V05 (WEI02005) software or later.

Change 1: Bank Control: when using the I/O Port "Bank Control Override" signal (00000FF2), now if the door is still open when the override switch is deactivated. the current bank user group will be automatically set to match the currently open door.

Correction 1: Light Safety Curtain:
a) if the car stops within a floor re-levelling area following a light curtain breakage, it is possible that the controller will attempt to re-level, which under

certain circumstances may result in a " RELEVELLING ABORT" error.
b) "EMERGENCY STOP-ON" error wrongly issued when a car call is used to
reset a light curtain breakage.
Both points now corrected.

Correction 2: "Lift Reserved" display output corrected for Non-Collective call control.

FST-Software version V1.100-0428 (22/04/08)

Correction 1: Further correction to V1.100-0427 / Correction-2

FST-Software version V1.100-0427 (21/04/08)

New Feature 1: Emergency Limit Switch break detection for rope lifts: Detection of the bottom
end limit switch opening for a short while only, because the lift has overrun the
bottom floor, but subsequently been pulled back due the counterweight. Now
this condition causes a " DRM-EMERG.LIMIT SW" failure, and keeps the lift
out of service until this failure is acknowledged by a service person.

Change 1: Display-dimming: when the "full dimming" (display-off) option is used (**Display
Dimming = 000001xx**), the departure arrows are now also turned OFF.

Correction 1: Parking at Pseudo Floor: now correctly observes status of **Config \ Park
Drives \ Enabled**

Correction 2: Errors "MISSED TARGET" and "SLIP OUTSIDE LEVEL": can in some
circumstances be wrongly issued following a "STOP ABORT" error when no
door-zone is being used. Now corrected.

FST-Software version V1.100-0426 (09/04/08)

New Feature 1: Bank Control Mode: new "Simple" Bank control option added: car calls are
unprotected, only landing calls are managed to keep user groups apart.

Config \ Special-Functions \ Bank-Control \ Bank Control = 00000111

FST-Software version V1.100-0425 (09/04/08)

New Feature 1: Loading Mode: new option added for Loading-Mode-0: pressing the loading
button forces all doors to open, even if there is no shaft door opening at current
floor (used to prevent car door damage during loading activities)
System \ Factory Menu \ Settings\Miscel-8 = 00000010
(Hidden menus must be set visible to access this menu)

Correction 1: Lift-Off completed SIGNAL output: problem corrected when using this signal
with the special Miscel-6/bit-0 "Lift-Off without door-opening" option.

Correction 2: Fireman "Frankfurt": correction to door control

FST-Software version V1.100-0424 (19/03/08)

New Feature 1: car priority: new supervisor option for car priority: One-Shot-Mode.
Allows one car call only, the car will then remain in car priority mode, with open
doors, all further calls disabled. Required for alternate "hazardous goods
transport"

System \ Factory Menu \ Settings \ Miscel-8 = 00000100

Change 1: 4-valve hydraulic and ASV (Pawl Control): Previously the safety-bypass relay
was permanently energized when the car is stationary within the door zone.
This practice was necessary to allow the lift to raise a few centimeters with
extended pawls and also for the low-pressure pump option. Since the NEW

ASV lifts are now wired differently, the constantly by-passed safety circuit is no longer required. The original safety-bypass control can be restored if required by setting:

Positioning \ Global \ Miscel-D1 = 01000000
(Hidden menus must be set visible to access this menu)

Correction 1: Bank Control: correction made to entrances with multi-usergroup registration when using the "stacked" landing call option (**Bank Control = xxxxxx01**). Previously the door would not open in response to landing calls from such entrances when made from the ADR-23 Bank Module.

Correction 2: Safety light curtain: Under certain circumstances, following the light-curtain self test activation; the FST would issue multiple retiring-cam LON messages, swamping the bus for a short while. This occurred only very occasionally and could result in a temporary DRM car-comms failure. Now corrected.

FST-Software version V1.100-0423 (11/03/08)

New Feature 1: DCP03 drive: new option to select Auxillary speed
Drive\Special-Parameters\Switch-5 = OFF (Ve – crawl)
Drive\Special-Parameters\Switch-5 = ON (Vi – inspection)

New Feature 2: Inspection "soft-stop" option: Before stopping the inspection drive, if both inspection UP and DOWN buttons are pressed, a regulated "soft" stop is made. As before, as soon as either or both directions are released, a "hard" emergency stop will result. NB: This may not work will all DCP03 inverters.

FST-Softwareversion V1.100-0422 (29/02/08)

New Feature 1: New I/O input port: SAM message code. This allows any exisiting or new speech message to be output on a SAM speech module triggered from an I/O port.
I/O port RAW = nnnn2DF2 or nnnn2DF3
where "nnnn" is the speech code in hex.

New Feature 2: New signal output – progammable timer.
SIGNAL port value = eess3884 or eess3885

where ss = START time of day in 15 minute units
ee = END time of day in 15 minute units

ss (hex) = wnnn nnnn (binary)
where w = weekday only
nnnnnnn = 15 time x 15 minutes

eg. 0010 0101 = 25(hex) = 37(dec) x 15 mins = 555mins
= timer starts at 09:15 AM, 7 days a week

eg 1010 0101 = timer starts at 09:15 AM, mon-fri only

ee(hex) = znnn nnnn (binary)
where z = weekend only

eg. 0100 0011 = 43(hex) = 67(dec) x 15 mins = 1005mins
= timer ends at 16:45 PM, 7 days a week

eg. 1100 0011 = timer ends at 16:45 PM, sat-sun only

eg. complete timer:
43A53884 = output port active between 09:15 and 16:45 mon-fri only

Correction 1: DRM: corrects problem where futher DRM's will not get detected if they occur after a DRM has occured under Inspection or Auxillary conditions. (problem introduced in FST V1.100-0407)

FST-Software version V1.100-0421 (20/02/08)

Correction 1: Car Light Monitoring: if **car light off delay** is set > 15 seconds, a car light failure will be reported after FST restart. Corrected

Correction 2: Giehl hydraulic with Star-Delta operation: the first drive after a FST restart executed correctly, but 2nd and subsequent drives are without Star switching phase (switches directly to Delta). Corrected

FST-Software version V1.100-0420 (18/02/08)

Correction 1: "IDR/ADR Reject Code" modification from FST V1.100-0418: reaction to unconfigured ADM event wrongly displayed as "penthouse call". Corrected

FST-Software version V1.100-0419 (15/02/08)

New Feature 1: Absolute Encoder belt slippage monitor added:
Positioning\Global\Enc. Belt Mon. = ON/OFF

Uses door zone to automatically compensate for small belt slippages ("tooth hopping", and shuts down in case of larger slippage.

Correction 1: LMS-Elevision: correct call acknowledgement issue to prevent door-less "pseudo-calls" "hanging" on Elevision display.

FST-Software version V1.100-0418 (08/02/08)

New Feature 1: PUBEL (Russia): new trigger input port function for use with emergency doors or hatches.
I/O port RAW = 00002CF2 or 00002CF3

Also, PUBEL drive restrictions now overriden in case of fire or fireman service

Change 1: Dietz ACP: direction status bit maintained throughout levelling.

Change 2: "IDR/ADR Reject code" display messages now changed to show scrolling text with exact details of reason and button floor/doorside

Correction 1: Anti-Nuisance car-call wrong direction: Elevision now correctly notified of this event to prevent appearance of "hanging" buttons

Correction 2: LCS weight-sensor: output of the LCS now ignored if present on the bus, but weight sensor type DIGITAL or ANALOG set in menu

FST-Software version V1.100-0417 (22/01/08)

New Feature 1: New I/O input port: allows remote control of an ADM "soft-output" port from the FST I/O port. A document describing all the remote signal options of the FST is available from NEW Lift.
I/O port RAW = 00002AF2 or 00002AF3

New Feature 2: Loading Mode: "car being loaded" will now optionally scroll on the EAZ-256 displays while loading is active. This has been previously only available in when German language is set, but now, the text is shown in a small font, allowing the floor-text to remain visible.

New Feature 3: Giehl 4-Valve: new option for fine-downwards valve control (K10)
Drive\Special-Parameters\Switch-2 = ON

New Feature 4: New I/O input port: allows user definable text to scroll on the EAZ-256 displays.
Configuration\EAZ-Configuration\Free EAZ-256 Text
I/O port RAW = 000n2BF2 or 000n2BF3

values for n:
1 = large text / car display
2 = large text / landing displays
3 = large text / car+landing displays
5 = small text / car display
6 = small text / landing displays
7 = small text / car+landing displays

"small text"=scrolling text in bottom display half, floor displayed in top half
"large text"=scrolling text large text occupies entire display - no floor text

Changed 1: Light Curtain: the interrupted light curtain condition which prevents landing calls being given, is now cleared automatically if a manual car door is opened.

Correction 1: Light Curtain: when the light curtain is interrupted in the last few centimeters during landing before the door zone, the car can end up stopping inside the zone. After being restarted with a car-call, the FST would first re-level into the floor and then attempt to drive any remaining millimeters. Re-levelling is now disabled until the floor level is reached to prevent problems with this behavior.

Correction 2: LON Module Update: correction to prevent the FST from resetting during a LON module update.

Correction 3: Calibration / Learn Drive: correction to prevent the FST from resetting or hanging in the moment that the calibration/learn drive completes.

FST-Software version V1.100-0416 (09/01/08)

New Feature 1: SAM: new speech output event for Light Curtain Break – this replaces the out-of-order message that was previosuly output.

Change 1: Speed Threshold I/O port function, "dynamic-speed-only" option (V0388) changed for use with Cedes light curtain systems:
Output now when:
- Inspection or Auxillary drive active
- Normal drive with crawl speed (Ve)

Correction 1: Load weight error status in LCD Line-3 "L=ERRnn" didn't show error values > 9 correctly, now corrected.

Correction 2: Divider Door: failure in correct operation since V0414, now corrected.

Correction 3: Parkdrive: normally a car driving to a park floor reacts to a car or landing call immediately, either continuing on to the new target floor or stopping and turning in the next possible floor without opening the door before driving on. This correction ensures that a landing call command for a floor near to where the car is currently driving past will also terminate the park drive, and not first wait until the park floor destination is reached.

FST-Software version V1.100-0415 (14/12/07)

New Feature 1: LCS: new re-calibration option added. Use to zero weight measurement following a safety gear test if car frame has become distorted.
Configuration \ Weight Sensor \ LCS-Settings \ Correct Offset

New Feature 2: Evacuation: new evacuation *hold* option added. The enables the FST evacuation condition to remain although the original trigger I/O signal has become inactive. The menu item **\Test Menu** \ Fault Reset is then used to reset the condition.

New Feature 3: Recording: new weight-measurement recording filter option added.
System \ Recording \ Filter Setting \ Weight Measures = ON/OFF

New Feature 4: New signal output – "car empty-load".
SIGNAL port value = 00003784 or 00003785

New Feature 5: New I/O input port: global landing call disable. Note: this function does not keep the doors open!
I/O port RAW = 000029F2 or 000029F3

Change 1: Quickstart: pre-start delay now adjustable: uses the **Doors \ Doors-Basic \ SCCT Debounce** time.

FST-Software version V1.100-0414 (30/11/07)

New Feature 1: Fireman recall mode: the FST will normally not drive through a floor in which a smoke alarm has tripped in order to reach the recall floor. This new switch allows the FST to ignore the smoke alarms between the car and the target recall floor.
Configuration \ Fireman Options \ Smoke Drive Thru = YES / NO

Change 1: SAM speech output: when using the "early" going-up/going-down announcement option, this message will now additionally be output whenever the car's logical direction changes, while the car is remains in the floor. Thus, the SAM will now for example, announce "going-up" when a call is given after entering the car which previously had no calls set, after a car call is pressed above the current floor.

Correction 1: Landing call locking for floors with through-doors (only, not selective-doors): Previously if only one doors side was locked, pressing the landing call from the opposite (free) side would cause both doors to open. No corrected such that the locked side never opens.

Correction 2: Car Priority mode used together with Lift-Off, for cars with 2 doors: If the car is in set to Car-Priority mode, and then subject to Lift-Off, once the Lift-Off floor has been reached and the doors have opened and closed again, the doors will then continue to oscillate; open/closed/open. Now corrected.

Correction 3: LCS Calibration mode from COP: correction to allow driving from the car buttons, after the calibration has been completed.

FST-Software version V1.100-0413 (26/11/07)

New Feature 1: New signal output – "less than 20 seconds left in Loading Mode". This signal will be output at the same time that the loading-mode light optionally starts to flash.
SIGNAL port value = 00003684 or 00003685

Change 1: DCP03 drives: instead of relying on the external brake monitoring signal to determine the point in time when the drive has stopped before applying the brake-monitoring delay, the FST now uses the DCP03 brake status instead.

To revert to the previous method using the hardwired brake monitoring signal, turn the following switch ON. <u>Normally this switch will set to OFF.</u>
Drive \ Special-Parameters \ Switch-4 = ON

FST-Software version V1.100-0412 (12/11/07)

New Feature 1: New ADM/EAZ-256 special-switch option allows up to 16 signals to be sent from landing-call modules to RIO ports anywhere in the lift system.
SIGNAL port value = 000n3584 or **000n3585** (n=0..15)

Correction 1: Giehl-AZRS: correction to FST V.100-0411 for both fine pump upwards and fine-valve downwards.

FST-Software version V1.100-0411 (06/11/07)

New Feature 1: New remote-disable mode added for CUS projects.

This feature requires FPM V53 / FPM2 V11 software or later.

New Feature 2: Giehl-AZRS: new option for fine-downwards valve control (K10)
Drive \ Special-Parameters \ Switch-4 = ON

Correction 1: Door Open button: corrected to work in all situations/combinations with 2 car doors, when selective door-locking is used.

FST-Software version V1.100-0410 (31/10/07)

Change 1: VIP mode: departure arrows are now disabled in VIP mode.

Correction 1: Full-load condition: For the situation where the car is brought to full-load, then to overload, then back to full-load, the doors will remain open, and driving disabled until the loading is reduced to below the full-load condition. Now corrected.

FST-Software version V1.100-0409 (26/10/07)

New Feature 1: Load Control System (LCS)
FST menu **Configuration \ Weight-sensor** reorganized with new features for the LCS.

New Feature 2: Fireman standard AS-1735 (Australia)
New option added which allows the Door-Close button as subsitute for the fireman's START switch. No menu changes are necessary to use this.

New Feature 3: Hand Terminal: new option to prevent any EAZ-LCD or VFD displays showing the FST menu if a Hand Terminal is being used on the FST bus. The EAZ displays will <u>not</u> show the FST menu if **Configuration \ EAZ-Configuration \ IRT-Code=00000**. For any value other than **00000** (used in preparation for using the Infra-red Hand Terminal) the FST menu <u>will</u> be shown.

This feature requires the EAZ-VFD/LCD software V09 or later.

New Feature 4: Maximum allowable door-zone lengths: is normally limited to 300mm. For special use, this restriction can now be lifted.
System \ Factory Menu \ Settings\Miscel-8 = 0000000<u>1</u>

Change 1: Frankfurt fireman service:
  a) door reversing contact strip is now disabled during firemen service mode.
  b) a fireman's drive which is interrupted by a power failure, will automatically resume after power is restored.

Correction 1: Fireman standard AS-1735 (Australia)
Correct problem where doors being operated in "deadman" mode under fireman service conditions will continue to open automatically following repeated pushes of the door-open button althought the button has been released. Requires FSM software: FSM V50 / FSM2 V12 or later.

Correction 2: Fireman service (all standards): correct problem where the doors will open automatically if they have been assigned as "normally open" in the **Calls \ Floor** menu (<A> or <B>).

FST-Software version V1.100-0408 (04/10/07)

Correction 1: Departure Arrows:
a) when used with the menu setting **Departure arrows = only when doors open**, the arrows will now no longer illuminate when the car arrives in the floor due to a park drive.

b) correction to occasional unwanted delay before departure arrows and gong activate, during car arrival.

Correction 2: Error List. incorrect presentation of error text in service \ error-list, when error list entry number exceeds 255.

FST-Software version V1.100-0407 (28/09/07)

New Feature 1: Drive Fuji-Electric: option added to allow programmable delay between Contactor/Enable/Direction and Speeds signal groups
  Drive \ Special-Parameters \ Switch-2 = ON
  Drive \ Special-Parameters \ Time-1 = nnnnn (mS)

New Feature 2: Critical Module Monitoring (CMM) facility added. The FST automatically creates a list of modules involved in the reading of critical signals; eg. Fire signals, Super-Priority, Evacuation etc. These FST constantly checks that these selected modules are still communicating over the bus, and in case any should become damaged, will shut down the system for normal use.
  Configuration \ LON-Configuration \ CMM-generate list
  Configuration \ LON-Configuration \ CMM-activate=YES/NO

  Separate doumentation covering CMM is available from NEWLIFT

New Feature 3: Door-Type = Simulated: an internal zone-signal simulation is now included allowing the pre-opening doors to be used.

New Feature 4: Option to force both Up and Down landing gongs to chime twice ("ding-dong") - this normally used for the Down gong only.
  System \ Factory Menu \ Settings\Miscel-7 = 01000000

Change 1: DRM-Motor, DRM-Contactor Monitoring: <u>can</u> now occur during Inspection or Auxillary drive, except during Installation mode.

  This behavior can be cancelled if the following switch is set:
  System \ Factory Menu \ Settings\Miscel-7 = 10000000

Change 2: Departure Arrows / Gong: improved response for arrows and gong uding landing. Previously if a call was placed <u>after</u> the landing into that floor had

begun, the arrow change and gong would only activate once the doors started to open. Now the announcements are made immediately.

Correction 1: Dynamic Fire-Recall: correction to a "short-floor" fire-recall drive, requiring Ve (crawl) speed, to avoid a smoked floor.

FST-Software version V1.100-0406 (11/09/07)

New Feature 1: Drive interface for Fuji-Electric FrenicLift added (parallel interface)
Drive \ Regulator-Type = Fuji-Electric

New Feature 2: Drive interface for Giehl-AZFR added
Drive \ Regulator-Type = GIEHL AZFR

Change 1: Learn Drive: change made to FST menu to prevent Learn drive being activated when using Absolute-encoder.

FST-Software version V1.100-0405 (03/09/07)

New Feature 1: Hydraulic drive, DRM-Motor failure: option added to which prevents normal service resuming automatically after the input signal (eg. Oil -Temperature) causing the DRM-Motor condition becomes inactive. The FST must subsequently be either reset, or the **\ Test-menu \ Fault-reset** menu activated.

System \ Factory Menu \ Settings\Miscel-7 = 00001000

Correction 1: Oildinamic 300 series drive: VMP signal pre-start activity missing – now corrected

FST-Software version V1.100-0404 (14/08/07)

New Feature 1: Fireman Service: new fire standard added – ASME (USA)

Configuration \ Fireman Options \ Fire Standards = ASME

FST-Software version V1.100-0403 (07/08/07)

Change 1: Giehl (standard unit): Down-valve shutoff output added – K11

Correction 1: DRM-Motor: problem caused by short-time power shortage affecting DCP-drive but not the FST supply which was backed up by UPS. The DRM-motor condition caused by the drive during the power-out was not sucessfully cleared after the system had re-stabilized. This situation only occured when a normally-closed fire-recall signal input also activated during the power-out period. Now corrected.

FST-Software version V1.100-0402 (19/07/07)

New Feature 1: Facility added to allow CUS-Module applications to initialize automatically following a FST restart

Correction 1: Correction made to operation of Screen Line-3 Shift-Left / Shift-Right selection made in FST V1.100-0400

FST-Software version V1.100-0401 (17/07/07)

Correction 1: Correction-1 from FST V1.100-0400 (improved door closing response with certain CUS-Modules) removed due to unforeseen negative side-effects

FST-Software version V1.100-0400 (13/07/07)

New Feature 1: Fireman Service: new fire standard added – PUBEL (Russia)

Configuration \ Fireman Options \ Fire Standards = PUBEL (Russia)

New Feature 2: Speech Output – for SAM module: new critical message repeat function:

Overload : message always repeats every 10 secs until overload condition subsides.

Fire-recall / Evacuation : new menu setting to define number of times that message be output.

Configuration \ Speech Output \ SAM-Module \ Message Repeat = n

 n=0 : message output once
 n=1 : message repeated once (after 10 secs)
 n=2 : message repeated twice (every 10 secs)
 n=3 : message repeated continuously (every 10 secs)

New Feature 3: New event added for logging of Fire-Recall (phase-1) in error memory:

FIREMAN MODE-ON / OFF (error #143)

Change 1: Door Open button option **\ Configuration \ Car-Operate-Panel \ OPEN=Last** function is now disabled in Fireman-Service mode (phase-2)

Change 2: Evacuation: relevelling is now only enabled if the "Pit-Flood" option is used, otherwise relevelling is disabled during evacuaton.

Change 3: The menu option **\ Doors \ Doors-Basic \ Remain Open** has now been removed. This feature is only intended for certain special goods lifts and should not be used as a general method for keeping the doors open in the floor (use **\ calls \ call-floor \ door = <A> <B>** on a floor by floor basis to do this).
A new factory-menu setting now replcaes the original "**remain open**" function:

System \ Factory Menu \ Settings\Miscel-7 = 00010000

Change 4: DCP03: drive menu display for Ziehl-Abegg inverters now changed to 4 rows of 20 characters for compatibility with new 3BF model. Now works with 1D,2x,3B series ZA drives.

Correction 1: Prevent unwanted delay in door closure during certain CUS-Module applications.

Correction 2: Correction made to door-error masking option added in FST V1.100-0397