Heller Industries, Inc.

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Software Version	Features added / Bugs Fixed
1.0.5.71 ECN#5729	CBS, Board reset switch will not communicate with edit mode. Default max edge width changed to 70cm. Fixed program crash from journal file creation at midnight, switching alarm, channel setup screen. +
1.0.5.8	Used only for Sony ovens
1.0.5.9	ECN#5770 (Not Released)
1.0.5.91	ECN#5775 (Not Released)
1.0.5.92 (ECN#5779)	Fixed program crashes - removed channel information from alarm screen. Edit mode is disabled. (add as a separate application with next revision). Remove copy-paste functions. (Problem with setpoint becomes zero). Running recipe overnight caused the application lockup - fixed by not creating new journal file. Instead create new only when application restarted on new date. Calendar events recorded in journal file. Fixed switch from cooldown mode to operate mode using calendar event. Belt speed unit conversion fixed. Board stop warning added as feature - if board blocks exit sensor for long time. Audible alarm is active when an alarm or board backup occurs with LTO option. Autolube option changed from distance base to time base. Redundant overtemp option added in setup wizard. Board spacing added to entrance sensor. Belt speed was not accurate between increments of encoder- resolved by multiplying encoder pulses by 100. Board drop after multiple of 256 boards - fixed math calculation when rolling over. Added Flux condensation option. Added LTO option (for Sony light tower conditions) Added redundant over temperature option in setup wizard. Fixed setpoint becomes 0 on channel warning. High process default value saved while creating new recipe. Add colors to channel PV to show OK, warning, alarm conditions.
1.0.6.0 (ECN#5810)	Edit mode application as a separate program. More than 4 heat channels at 100% power will cause power up sequence to be initiated. Maximum belt speed up to 635cm/min. (250in/min) Belt channel color added. Light tower location according to oven direction. Removed light tower pole. Legends added to real time graphs. Increase board spacing upto 50cm. Modification to Smema2: maintain board spacing when board count option is not selected, pulse stretch the output sensor/contact to board spacing. Disable out sensor if there are no boards in the oven. Log out button is added. CBS position saved as part of recipe. Manual edge width buttons for jog. Remove 'Cancel Finish and Go Back' button in setup wizard. Events related to N2 on/off, CBS up/down, Autolube cycle, Board Reset, user started the manual flux condensation cycle are logged in the event log. Audible alarm for board drop, board stop warnings. Password for a day 'Unlock it' application fixed to display printable characters. (268,435,456 possible combinations between alternate numbers and characters) Added recipe option to flux condensation. Modify power up sequence for last zones in the sequence does not wait for power below 80%

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	for green light, as long as temperature within range. Heat fan fault (blower verification) option added.
1.0.6.1 (ECN#5877)	Automatic warning acknowledgements (for only heat zones and belt speed). Color to comp. control rail PV. Board Stop functionality is tied with board drop option. 5 sec. time delay between light tower condition change. Added 3rd lane SMEMA2, animation, board drop option. Fixed problem with dual SMEMA with dual belt speed. Labels added for manual jog buttons for manual edge width. CBS switch position change during cooldown. Can open existing journal files in event screen. Prompt operator to check for boards in oven for oven w/o board drop/cnt option Fixed calendar event default date on 31st. Default belt speed warning in recipe is 15. For comp control blower zones Low: 65, Med: 70, High: 100. Computer control blower option Min: 65%. Recipes gets updated automatically for compatibility with 1.0. 6.1 from 1.0.6.0 With LTO option (for Sony) in OK condition light tower is off. Two Autolube outputs are available. Light tower pole is added on overview screen. Spanish and Japanese translations.
1.0.6.2	**Setup Wizard Changes** - Setup wizard is password protected - Added option for CBS Up/Down Position Feedback (for Fujitsu style CBS) - Added setpoint windows for low & medium % settings for blower controls - Added setpoint windows for min% settings for Analog cool and CC Blowers - Added warning and alarm time setpoint windows for Low Exhaust option - Added travel distance setpoint min & max windows for computer control rails - Fixed cm to inch conversion - 'Finish' button is displayed only on page5 - Fixed problem with autolube time change save in setup wizard **Heller operating program** - Default supervisor level user 'Heller' with password 'Heller' created - All security functions added in supervisor level - Fixed problem with password where user who does not have access to edit setpoint was able to edit after downloading second recipe. While logging in for different user if cancel is clicked current user accesses defaults back, it used to log off completely. - Fixed problem with 3 lane board stop functionality with LTO option - Fixed problem with Autopurge/standby w/more than one lane sensors - Added separate messages for 3 lanes (brd drop alarm, brd stop warning) - Red light and audible alarm stays ON till alarm acknowledge - Fixed problem with Heat26 channel color on 1900 model oven - Fixed computer control home out logic, rail always goes to its final position from in. - Fixed problem with belt speed manual control - Fixed flux heater channel color - Added labels on overview screen (temp unit, belt speed unit, reset, cooling%, blower%, cool 1, cbs up/down button changed etc.) - Added separate high H2O temp alarm input - Added CBS up/down position feedback (for Fujitsu style cbs) - Added output (5 sec) for new job

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	- Added Data logging in text file - Added message while recipe load for no board inside oven - Can reload same recipe - With LTO option selected green flashing light - new job, green stable - OK, yellow flashing - warnings for heat & belt, red flashing - board drop/stop and alarms.
1.0.6.21 ECN5954	Bugs fixed - Fixed problem with channel setup screen using 'previous' arrow button with oven setup as first heat channel off. - Fixed problem with channel setup screen when entering SP out of range (1-300). - Allow access to data logging text file while Heller operating program is running - Log recipe name in data logging Patch files for cooling blowers at 100% in cooldown mode, and with cc rail if rail sp is same for new recipe does not move rail. (01-Jun-01) Patch files for fast belt speed ramp up. (15-Aug-01) [iodatabs.vxd, Heller comm..ocx]
1.0.6.22 (Special for Selcom)	Added second CBS up/down. Fixed 4 computer control rail option. (w/ 2 open loop belt) Bugs to fix: - Second CBS position cannot be saved in the recipe - Fix close loop belt with 4 rail, 2 belt - In open loop belt system there should not be any warning occurred. Currently when belt setpoint is changed with large amount warning occurs.
1.0.6.3 (ECN#6011)	- Related to security: User not allowed to save recipe but allowed to edit setpoints can save recipe while loading new recipe. Message comes up as ' you want to save recipe' yes/no. if yes is clicked recipe is saved. - Need to fix problem with 2 cc rail, CBS home in - EH home out. Eh SP set same as home distance and cbs SP not as home distance: in this case cbs does not move when eh homes out. - Fixed power up delay operation, never worked before. - Flux heater channel is added in power up sequence group. - Change default setting for flux condensation duration time to 60min (currently 20min) - When 1st, 2nd, 3rd or 4th heat channel turned off in setup wizard, then SP, PV labels does not gets displayed on overview screen. - Acknowledge alarm button enabled on main overview screen (password protected), Currently it is enabled only in alarm screen - Default high water alarm is unchecked in setup wizard and moved to page2 in setup wizard from page1. - With CBS feedback logic when CBS up/down switch is clicked wait for appropriate feedback signal before turning in OK (green light) state. - PRP3.exe is available again - Overview studio - text editing can be saved. - Add Zone blower (A, B, C) High % window in setup wizard. (Default 100) - Print recipe or journal: page numbers does not displayed properly when open first time (ex 1 of 1+). Fixed. - Features to display which user is currently logged in. - Setup wizard - buttons for save & exit and exit without saving are available. - Copy/paste functions added for heat channels. Disabled in cooldown mode. - Add feature: Log power failure as soon as (3sec delay) it occurs in alarm screen and in event log as "Power Loss".

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		After 15sec of power drop if oven is in operate mode then load cooldown displaying message (as it works in ver 1.0.6.21). Check for power failure before loading new recipe. If oven is in power failure then do not allow to load recipe in operate mode displaying message "Power failure, cannot open or load recipe".
	-	Leave cooling blowers at 100% in cooldown mode for Sony LTO option only.
	-	When loading new recipe if EH width is same do not home / move rail.
	-	In EDIT mode allow rail width change while operate mode has boards in oven.
	-	In channel setup, when warning band changed to 1, it cannot be changed back to any other value. Message comes up as "Please enter a number between 1 to 1". Also if at the same time alarm band changed to 0 then cannot enter any other screen.
	-	In open loop belt setup, after downloading recipe belt does not move. If setpoint is changed then belt starts moving. Fixed.
	-	Added second CBS up/down. Second CBS position can be saved in the recipe.
	-	Fixed close loop belt when 4 ccrail are present. For belt encoder analog input through TDM module.
	-	In event screen click Journal -> Save As and save the current journal file with different name. Now switch to main overview screen, all present values (PV) displayed 0. If try to save on existing file program crashes. Need to remove 'Save As' from Journal menu on event screen. Fixed.
	-	Need to add option in setup wizard: For sony light tower option (LTO) need to add one more check box to select Green light ON or OFF in oven OK state.
	-	Faster belt speed ramp up.
	-	Bug: Secuirty In security setup default user is heller with heller password. If you select heller and doubleclick or click on edit to change the password. Without changing any password just click OK, this will crash the program.(illegal operation performed). This happens only on 'heller' user.
	-	New option for fourth lane interface SMEMA2
	-	With CBS feedback logic when CBS up/down switch is clicked wait for appropriate feedback signal before turning in OK state.
	-	Edit mode crash. Some time in edit mode if multiple recipes opened to edit, edit mode crashes (comctl32.dll).
	-	In setup wizard, cm to inch conversion for rail2 is fixed. (home distance)
	-	SECS/GEM compatible
	-	Dansensor compatible (dansensor software is not ready yet)
1.0.6.31	-	Japanese Version, Not released to manufacturing
1.0.6.32 (ECN#6036)	-	Japanese version files
	-	Heat rise rate alarm issue fixed
	-	Smema2 issue for 4 CC rail and 2-conveyor belt configuration.
	-	Fix for bridge program when oven is setup for 1800ss model (skip channels) and belt speed
	-	Bridge program is updated for belt speed accuracy and heat channel set point display for oven setup where channels are skipped.
1.0.6.33 (ECN#6043) 1-Mar-2002	-	Fixed Seagate interface option.
	-	Security- With version 1.0.6.3 after logout, if try to login, but click cancel on login screen. Set points on the overview were editable. Fixed in 1.0.6.33.
1.0.6.34 (ECN#6062)	-	Message box for computer controlled rails added asking to move the rail

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4-Jun-2002	before new recipe load. - Hunt feature is active only when rail set point is changed or new recipe load. After rail sets, rail hunt feature gets disabled. - Rail PV window color changed to yellow when SP and PV are out of allowed tolerance. - Dansensor link is added. (there were patch files for 1.0.6.33) - Redundant Temperature Monitoring application is added as part of custom installation.
10634 patch 6-26-2002	- Patch for CC rail: problem was with loading same recipe and yes to move rail, cbs homes in but not edge hold. (Another problem introduced about belt speed pv value display. Pv displays 0 till belt reaches sp. Manual Rail Jog buttons does not work with 1.0.6.34 version).
1.0.7.0 / 1 special (3-15-2002)	- Heller oven software with Redundant Monitoring (custom installation). Used on Flip Chip. Redundant Monitoring version 1.1.
3-29-02	- Patch files (Iodatabs.vxd, Heller Comm.ocx for 1.0.7.1 and 1.0.6.33) for dansensor DDE fix.
1.0.7.2 special 31-May-2002. Update 9-18-02	- For B&O, security features for jobs. - Patch was generated on 6-26-02 from 1.0.6.34 for CC rail issue with same recipe load. - Software updated for rails, similar fix as with version 1.0.6.36 (9-12-02).
1.0.6.35 ECN-6102 8-AUG-2002	- Fixed: Heat1 set point turning 0 when when downloading recipe. - Fixed belt speed set point round off issue; displays decimal digits now. - Fixed board count issue with board spacing 0. Board count used to increase continuously when sensor blocked. - Fixed the issue with setup wizard related to using enter key. Units in inches was not getting converted properly. - Fixed: Event log for computer blower control. Used to log as Rail1, Rail 2, Rail 3 instead of Blower Zone A , B, C. - Flux condensation option updated for recipe (N2) mode. While autoclean.job is running, at the end of duration time set in setup wizard oven goes in cooldown mode. (Gen5.1). Button for manual flux cycle is disabled in recipe mode. Timed (Air) mode is unchanged.
1.0.6.35 (29-Aug-2002)	- Secsgem fix, problem with Heller overview screen refresh with remote recipe load.
1.0.6.36 ECN-6111 12-Sep-2002	- Rail fix: 1) Rail homed and stopped when new recipe loaded while current recipe homing process is in progress. 2) If recipe with similar rail setpoints loaded, cbs homes in and all rail stops 3) Hunt feature works properly for tolerance < +1mm. 4) problem was when ex. current SP=30, changed to 20, after rail starts moving change to 25, rail stopped moving. - Master user "Admin" is removed. The default login will be user "Heller" and password "heller" which can be modified by customer.
1.0.6.37 ECN-6122 10-11-2002	- Fixed Bug with rail related to light tower. The issue was: After rail positioned and green light on if rail goes out of tolerance band, PV window color changes yellow but light tower stays green. - The logic for enabling rails is changed. Now direction signal is set first and then rail is enabled.

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	- Modified Japanese version
1.0.6.38 (file date 11-27-02) ECN-6149 12-03-2002	- Feature added: Over draw warning. 100% power check after oven running OK, (Green light). If any channel reach 100% output power after OK condition, message will pop up and light will turn flashing yellow. Over draw warning % can be set in setup wizard. Default is 100%. - Problem fixed with 2 CC rail and 2 belt combination. Belt2 encoder was not configured properly. - Memory leaks are fixed. This was causing oven bitmap disappear from overview. Leaks related to N2, CBS button, recipe load are fixed. - Rail algorithm is updated. In case of overshoot, correction factor on the next try is adjusted. It is (overshoot count – 20count). [1mm = 157count]. In case of undershoot, correction count = stop position + undershoot count + 15. - Latest Spanish version
1.0.7.21 Special (file date 11-27-02) ECN-6149 12-03-2002	- For B&O, security features for jobs, update from 1.0.7.2. - Memory leaks are fixed. This was causing oven bitmap disappear from overview. Leaks related to N2, CBS button, recipe load are fixed. - Rail algorithm is updated. In case of overshoot, correction factor on the next try is adjusted. It is (overshoot count – 20count). [1mm = 157count]. In case of undershoot, correction count = stop position + undershoot count + 15. - Problem fixed with 2 CC rail and 2 belt combination. Belt2 encoder was not configured properly.
1.0.6.4 (HP only) (Dec-13-2002)	- Has all software modifications as per HP ovens requirement - Redundant monitoring - 3channel Dansensor, Dansensor warnings in Heller applications - Second audible alarm output for low exhaust warning, belt warning, Dansensor warning. - Selectable power failure delay - Selectable exhaust warning and alarm, max time allowed 9999sec. - Audible alarm silence button to turn off the audible alarm output - Slow belt speed: improvement in display, 0.1" warning band possible - Warning auto acknowledge can be disabled - Heat and belt Channels can be grouped together so that changing any one-channel property (output, input, warning, deviation etc.) in a group will change all channels in a group. - 4-lane smema and animation works correct now. - All software changes till 1.0.6.38 related to CC Rail - Security setup item to edit the channel parameters.
1.0.6.39 (Feb-21-2003) Upgraded from 1.0.6.38 ECN-6173	- CC Rail option changed: More settable parameters in setup wizard to improve performance. - Changes in setup wizard: 1. Coast offset entry box. (default 0cm, range 0 to 10cm) 2. Backup distance entry box. (default 2cm, range 0.5 to 3cm) 3. selection for rail final position direction: "Hunt as HomeIn" or "Hunt as HomeOut" 4. Maximum Hunt Try entry box. (0 to 5) 5. add – and + tolerance entry box. (+ 0 to 2mm, - 0 to 2mm, tolerance band 0.2mm to 4mm)

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	- Warning message if rail's final position is not in a tolerance band - Warning message if rail stopped while it is trying to go to final position - 3 decimal display for rail PV - In event log rail set point changes are recorded Note: Manual (Jog) Rail control does not work with this version
1.0.6.5 ECN-6182 Upgraded from 1.0.6.4	Upgraded from 1.0.6.4 version to add - Rail changes as in 1.0.6.39 - Analog Fan O/P: a. stays on in cooldown mode, b. with High Water Temp alarm option o/p stays off in cooldown mode. - Gen5.1 with delayed exhaust blower turn off and second flux heater. Operation:- 1.Load AUTOCLEAN recipe - flux box cool blowers will turn off - FLUX HEATER DELAY and CYCLE START CHECK timer starts 2.after flux heater delay exhaust blower turns off and cool zone heater can turn on whenever its ready via startup sequence. 3.after all heater zones are in ok state CYCLE DURATION timer starts. 4.at the end of cycle oven goes in cooldown. 5.if cycle does not start within cycle start check time oven goes in cooldown with alarm. - Message "Auto flux condensation …." does not appear in green color when cycle is not on. Only appears in black color when cycle is on. - In Japanese version issue with the CBS switch was not displaying is fixed - The issue with oven turning on with winkic even when heller application is not running is fixed. - Issue with Heat zone blower control grayed out when calendar recipe loaded after cooldown mode is fixed Note: Manual (Jog) Rail control does not work with this version

1.0.6.51
ECN-6220
7-2-2003
	Upgraded from 1.0.6.5
	1. Gen5.1 (Flux condensation) option updated for
	  A. After completion of "autoclean " recipe have ability to load one of following
	  a. Load cooldown (default)
	  b. Load cooldown w/Nitrogen w/timer for N2 on time
	  c. Load selectable existing recipe
	  The above options will be selectable in operate mode.
	  B. When flux cycle is complete (end of autoclean job successfully) turn on "Cooling Purge" output for selectable time. Purge output and time is selectable in setup wizard.
	
	2. Spanish version is fixed for crash in 1.0.6.5 version

1.0.6.52 (8-13-2003)	Redundant monitoring application fix for R-L oven configuration (for HP Irland)
1.0.6.53	Selectable message can be added before loading Autoclean job. If clicked OK

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(8-20-2003)	autoclean job will be loaded, if clicked Cancel will not load Autoclean job.
1.0.6.54 (9-19-2003)	- Maximum heater zone limit in a startup group is settable in setup wizard, default is 4, range is 1-26. - Flux heater delay is applied before flux heater startup group in autoclean recipe, it was applied as soon as autoclean recipe is loaded. - New output (DOUT23) while autoclean job is running for low N2. (This output is also used in N2 Autopurge/standby option. Only one option can be used at a time.) (Seagate)
1.0.6.55 (10-01-2003)	- Dansensor logic for multichannel is changed so that warning will occur only when "muxTime" is counting down not during transition. (did not worked). - ActiveX functions added for Dansensor PPM level - Setup wizard is updated for rail Min and Max position bug. These values were not able to change, defaults back to original (for Soletron) - German language installation is added
1.0.6.56 (11-12-03)	- Redundant application was not working in 10655, recompiled in 10656 - Dansensor multichannel logic is updated (send to HP Pourto-Rico for test) - 10656b(12-02-03): Dansensor logic updated to check for alarm 3 times before displaying final warning. (HP)

1.0.6.57
(12-30-03)
	- Settable belt speed Warning Delay Time (1-30sec, Default:3) and Deadband Dev Time (0-30sec, Default:10)
	- Option to remove heat channel from startup sequence, start it as soon as job is loaded.
	  - Set channel startup sequence as "TH" (Tunnel Heater)
	  - no heat rise rate alarm
	  - this channel is not considered for features like "more than 5 zones running at 100% output power" and "heat#: is drawing output power beyond threshold.
	  - Flux heater channels, cool1 & cool2, cannot set as "TH"
	- Bug fixed: when units are in 'inch' and belt warning is set as 1, on trend plot screen while surfing through channels using Next arrow when pass from belt channel to Heat15 message displays "warning range must exceed alarm range.."
	- Channel color issue for second flux heater channel (Cool2) is fixed. When channel goes in warning state and if cooldown or new job loaded channel still displays warning yellow color even it is not activated in startup group.
	- Belt speed PV window size is made same as SP window. Belt display for low speed corrected from 1.0.6.56 version, code was commented out in 1.0.6.56.

1.0.6.58 (04-05-2004)	- A rare program crash related to recipe load fixed