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1 All Sport 1600 Revision History

Version 1.0.0 Release Date: 21 December 2000

• Initial software release

Version 1.1.0 Release Date: 23 February 2001

• Added Gymnastics Code 15 to the console

Version 1.2.0 Release Date: 30 March 2001

• Added codes for 12.8k protocol Baseball and MS-2001 scoreboards

Version 1.2.1 Release Date: 9 May 2001

- Added a horn key for the shot/play clock codes 04 and 05
- Added a horn output to col 9-H of driver address 1 for multi-purpose timer
- Added address 22 output (6 digit clk) to the multipurpose timer

Version 1.2.2 Release Date: 12 June 2001

Modified the keyboard test for the automated board test so the test would work
 correctly

Version 1.2.3 Release Date: 12 September 2001

- Added radio channels up to channel 75
- Added more segments to segment timer
- Fixed Time of Day to count and set as 12 hour time
- Changed segment timer to allow count up of segment time

Version 1.2.4 Release Date: 26 October 2001

- Added the data for BA-2010 to the BA-5 scoreboard output on address 61
- Made the MS-2001 output at address 11 handle an MS-918 for clock/score and baseball

Version 1.2.6 Release Date: 20 December 2001

- Changed default segment timer time to 5 minutes instead of 10 minutes
- Added a dim key to volleyball and clock/score for codes 01 and 02

Version 1.2.7 Release Date: 23 September 2002

- Added data on address 11 for the MS-2013 for segment timer & volleyball modes
- Added an auto horn key in shot timer/play clock codes 04/05 so the horn can be disabled
- Fixed bug in set time of segment timer and made default of 5 minutes in copy range key
- Added a "Reset on stop" option for play clock mode
- Added dimming levels of 1-9

Version 2.0.0 Release Date: 15 January 2003

- Added group and channel selection for the GEN 4 radios
- Added the E segment of the colon for 6 digit clock on address 22

Version 2.0.1 Release Date: 4 June 2003

- Added 2 digit time to address 61 in code 03 for baseball for the model BA-2012
- Fixed the radio channel select to work for GEN 4 radios after exit from the production test

Version 2.0.2 Release Date: 4 November 2003

• Added code 16 for squash boards with team score

Version 2.0.3 Release Date: 10 March 2004

- Added dimming to lap counter code 10
- Made clock flash when stopped in baseball

• Added address 11 for MS-2013 in squash code

Version 2.0.4 Release Date: 29 December 2005

- Added address 12 for BA-1018 to baseball
- Added game # to column 15 of MS-2013 in volleyball
- Removed flashing from clock when stopped in baseball
- Added a new game key in clock/score code
- Added lap # to address 1 in lap counter code

Version 2.0.5 Release Date: 25 May 2007

- Added key for selecting display of At Bat in baseball
- Added basketball code 21
- Added pitch count to baseball

Version 2.0.6 Release Date: 6 November 2007

- Added an alt key to select Pitch Count for display
- Added a delay at start up for radio initialize

Version 2.0.7 Release Date: 2 July 2008

- Added a time of day/game key to the clock/score code
- Added 12/24 time of day selection
- Added a code (23) for baseball that has clock on address 11

Version 3.0.0 Release Date: 15 December 2008

(New hardware with non-volatile RAM)

- Added restore of radio broadcast group and channel settings
- Added resume game for restore of GIP data for all sport codes
- Added save and restore of config for all sports
- Added address 1 to multipurpose timer (code 07)
- Added code 88 for old 12.8k protocol boards (BB-10)
- Added address 11 to basketball code 21
- Added new game key to baseball and volleyball

Version 3.0.1 Release Date: 8 January 2009

- Corrected code 11,12, and 13 (field events) to operate as metric values
- Corrected baseball codes to restore configuration values
- Corrected tennis to restore team scores on resume game

Version 3.0.2 Release Date: 20 September 2009

- Added address 254 in all codes with console type and version number for All Sport CG
- Corrected a problem in baseball and multi-purpose timer with the clock not using hours precision for setting time or counting

Version 3.0.3 Release Date: 17 November 2009

- Fixed the problem of driver output in old codes not showing correct data
- Fixed the driver output of BB-17 in the old codes to swap home and guest possession

Version 3.0.4 Release Date: 19 March 2010

- Added address 17 to segment timer code 06
- Made the New Game function in Basketball reset from TOD and start in game time
- Added a 2 shot bonus to basketball and added to address 17 driver output

Version 3.0.5 Release Date: 22 October 2010

- Added a H/E key selection to baseball for the 2 clock digits; allows the clock digits to show H or E when the Hit or Error key is pressed
- Added a pitch timer clock output to address 1 in the play clock code 05

Version 4.0.0 Release Date: 7 April 2011

• Added support for the use of serial EEprom as non-volatile memory.

Version 4.0.1 Release Date: 11 Aug 2011

- Changed power loss detection to not show the Battery Low message if not running from battery.
- Added a test code for old 12.8K protocol, code 98.

Version 4.0.2 Release Date: 21 August 2011

• Changed the broadcast group selection so it allows for 8 groups instead of 4, with Gen VI radio update.

Version 4.0.3 Release Date: 11 October 2013

- Changed so tenths of a second would show in count-up when under 1 minute on clocks.
- Corrected a problem with detecting line frequency on power-up when there is noisy line power.

2 All Sport 5000 Revision History

Version 1.0 Release Date: 3 January 2000

• Initial software release

Version 1.0.1 Release Date: 11 January 2000

- Fixed the clock =0 indicator (period end) so it will update when count up/down is changed
- Made the shot clock not blank when the clock is set to count up
- The time-of-day (TOD) clock only works with 60Hz, made so it will work with 50Hz power also. This includes having it count this in the tenths/hundredths field so the TOD will be in sync with the driver time
- The timeout ON/OFF key does not allow for a cold key exit once it is in edit of the time
- Increase the refresh rate of the drivers
- When set to TOD display, the TOD was not being sent out on RTD
- Modified the soccer and baseball settings function to check if it is called while in the game or before the game for certain settings that change what is displayed on the scoreboards
- Add code 0000 to do keyboard test and LCD test
- Add indication of console running from battery backup. Add message at console
 power up to indicate that AC power was not connected. Add message to LCD
 and sound beeper when AC power lost
- Make shot/play clock horn turn off with reset operation
- Make TOD in 24-hour format so it does not shift to mm:ss when hrs are zero
- Make the set TOD packet so it will still send when the same TOD is set in

Version 1.0.2 Release Date: 12 January 2000

• Added output tables for BB-2031_PLF and BB-2031_FPL, these tables were added to codes 1101 and 1102 and replaced the BB-3000 output on address 13

Version 1.0.3 Release Date: 21 January 2000

- Made change to RAM test in production test
- Added output tables for a BB-2031, these tables were added to codes 2101 and 2111 in volleyball and codes 3101 & 3102 in wrestling and replaced the BB-3000 output on address 13

Version 1.0.4 Release Date: 7 February 2000

- Revised wrestling advantage time to not start with clock start if the advantage clock was previously stopped
- Added flashing of player stats in basketball and volleyball
- Removed the delete players option in home and guest roster for basketball and volleyball
- Removed the edit settings question at power up
- Removed the new game question when the code entered is the same as the previous code that was used
- Changed menu so that arrow keys will wrap around back to the start of the menu items
- Moved the switch output selection to the end of the settings function
- Revised the player edit function in basketball and volleyball to exit the routine when <ENTER> is pressed

Version 1.0.5 Release Date: 7 March 2000

- Track sport added
- Test code 0001 added
- Set TOD to 12:00 when start up so operators will set new time

- Added caption control to basketball, volleyball, football, wrestling, and hockey
- Added codes for the 2500 series basketball boards
- Added previous game scores to volleyball for display on the 2500 series basketball board
- Added player-fouls-points (PLY FL PTS) captions for the 3000 and 2500 series basketball boards. The captions will be added to basketball, hockey, volleyball, wrestling, and football (arena)
- Changed player rosters to not allow duplicate numbers to be entered
- Changed individual substitution and mass substitution to allow add of player number to roster if not found
- Changed the LCD in basketball to display the shot time
- Added team fouls -1 function in basketball
- Removed the no AC power warning message at power up
- Added flashing of player number in basketball and volleyball

Version 1.0.6 Release Date: 17 March 2000

- Added segment timer program
- Added lacrosse code
- Changed menu in each sport to include "display menu" subroutine

Version 1.1.0 Release Date: 2 May 2000

- Added pitch and speed code 5500 for Jugs and Stalker guns
- Added tennis code 220 for standard tennis board
- Added a scoreboard blank feature to the display menu
- Added blank capability to the remainder of scoreboard digits in the TOD menu for outdoor applications
- The time out timer is blanked and the RTD sent when the timer is stopped
- Formatted the specific TOD RTD item numbers as hh:mm:ss
- Add PLR F PTS captions team name message center (TNMC) for the BB-3000 series scoreboard
- Made the captions 1 and 2 control work on the sports of basketball, hockey, volleyball, wrestling, and football on column 3 of address 220
- Added auto increment to period when the period time set is used and the clock value was at 0:00
- Added auto increment of inning to baseball and the ability to turn the auto increment on/off
- When the inning is incremented it also sets the current team score to 0 if blank and changes the at bat indicator

Version 1.1.1 Release Date: 10 May 2000

- Corrected error in BB-2041 driver 2 driver table in basketball player-foul-points, points x10 column 7. This error will only be found in release 1.1.0
- Added scoreboard test program, code 0002

Version 1.2.0 Release Date: 1 August 2000

- Added event counter codes 371-376
- Added judo codes 281 and 284
- Added karate codes 282 and 285
- Added tae kwon do codes 283 and 286
- Added multi-purpose timer code 100
- Added dedicated segment timer code 99
- Added auto racing codes 301, 333, 336, 401, 433, 995
- Added a configurable warning time to segment timer program
- Added clock console codes in basketball (1000) and football (6000)
- Added shots-on-goal console code in hockey (4000)
- Fixed "ball on" function to exit when a key was pressed after an illegal key value

- Fixed problem with hockey shots-on-goal and home player 1 penalty number
- Fixed dimming problem causing scoreboard to blank when dim level was changed
- Added momentary relay closure setting for analog clock operation in soccer codes
- Added a RTD heartbeat clock packet, changed routine to update clock RTD once per second when counting down
- Modified routines to accept a clear key press and blank scoreboard data
- Modified blank shot setting routine to update shot clock when setting was changed
- Fixed basketball initialize routine to copy shot clock default on a new game and not on a resume
- Added a second configurable timer reset switch in basketball and football
- Modified set play clock and set shot clock functions to start over at the first step when a new key was pressed
- Added H-413 shots-on-goal scoreboard to all hockey codes
- Modified roster functions to send only changed RTD item fields
- Added codes 1401 and 1402 to basketball program and codes 2401, 2402 to volleyball
- Modified initialize routine to leave the TOD clock at its preset value when a new game is selected

Version 1.2.1 Release Date: 30 August 2000

- Corrected team name centering problem with odd length team names being off by one column
- Changed the multipurpose timer default dimming level to 0 (full brightness)
- Shifted characters r and y were reduced to 3 columns for TNMCs
- Added a manual horn button function to test code 0001

Version 1.3.0 Release Date: 24 October 2000

- Modified multi-purpose timer to have TOD display on a 6 digit clock output
- Changed initialize in basketball so heartbeat packet will be sent
- Modified pitch and speed routines to accept a faster pitch speed within 2 seconds of first reading
- Modified auto racing code to use driver name from ChronX for RTD display
 purposes
- Made several changes to RTD output table
- Modified sport menus to have the display dim selection in the main menu after New Code

Version 1.3.1 Release Date: 10 January 2001

- Changed auto racing to ignore any commas in alpha fields (field separators)
- Add power-on caption control to address 23,24,25 in football to column 16 of each for code 6611
- Change auto racing to default to show current lap in manual codes
- Change auto racing to display lap in race mode and display lap time in qualify mode
- Change test code to fix the problem of manual horn key causing the rotating column and row to stop
- Add output for TI-218 in basketball at address 2
- Fix wrestling adv time problem of switching adv indicator when adv time reaches the main clock period time setting
- Modify wrestling scoreboard test to display red and green on LCD instead of home and guest
- Fix wrestling new game problem of not turning off the adv time clock so when the main clock is started, the adv time starts counting down

• Correct the problem of the period end time not being saved on a loss of power and then resume game

Version 1.4.0 Release Date: 2 February 2001

- Fixed the scoreboard test program for auto racing boards to not blank the clock section
- Added a scoreboard test function for MS-2001 when code 02 is entered without a previous sport code
- Added a new code 6402 for football on hockey 2024 boards
- Changed auto racing pylon scoreboard outputs for pos 41-45 to use the correct RTD item numbers and display the correct information

Version 1.4.1 Release Date: 1 March 2001

- Add outputs for a new MS-2009 to soccer and to football
- Add basketball and hockey codes for use at the American Airlines Center in Dallas codes 9101 (basketball) and 9401 (hockey)
- Add outputs for SO-2008 to soccer (Code 7601) and football (code 6601) and hockey/lacrosse (code 4601)
- Add x100 team score segments to hockey boards with address 71 to basketball codes 1401 and 1402 and to hockey codes 4401 and 4402 for testing purpose

Version 1.4.2 Release Date: 12 April 2001

- Added a menu option to baseball to allow a 2 digit time or at bat to be displayed in the at bat section of the output. This is done for a new model of scoreboard BA-2005
- Added a minimum speed selection for radar gun on pitch and speed
- Corrected problem with speed of pitch not working with Stalker® radar gun when gun is set for whole digit and no tenths
- Added a medical timer so it will count beyond the end of a period
- Fixed judo osaekomi timer so it will count beyond the end of a period
- Added address 22 for 6 digit time on the TI-2006 to the multi-purpose timer
- Added an output for SO-1830, 1930 to code 4601 hockey/lacrosse for use in lacrosse that will show period on the home penalty digit

Version 1.4.3 Release Date: 8 June 2001

- Added a new address 17 for Tuff Sport[™] basketball boards to codes for basketball, volleyball, wrestling, hockey, and football
- Added 16 column caption on address 223 for Kemper Arena to codes 1103, 2103, 3103, 4103 and 6103
- Fixed the judo medical timer so if set to time of 0:00 would disable the medical timer when the medical exam key is pressed
- Added to judo to show the score, penalty, and medical status on the second line of the LCD
- Added pitch count keys to pitch and speed code

Version 1.4.4 Release Date: 26 July 2001

- Added alternative driver tables for reverse of white-blue to judo, karate, tae kwon do, at driver address 109,110,111
- Change radio channel limit to 75 channels
- Added address 15,16 to football code 6611
- Added the select frame # response to DSTI (to indicate sport) for hockey, soccer, baseball, and wrestling

Version 1.5.0 Release Date: 26 October 2001

- Made hockey penalty times to shift up to the top position on the scoreboard
- Changed to allow adjustment of penalty times after setting the main clock
- Added SO-1624 address 13,14 to hockey code 4601

- Add team name address 221 to code 8604 for track
- Moved the at bat for baseball on FB-1630/SO-1830 from 5,6 to 3,4
- Changed segment timer so it can count up
- Changed the displays for American Airlines to show full timeouts on the main scoreboard and full-partial timeouts on the auxiliary displays
- Changed the main hockey console so it would keep the SOG keys active after data is received from the SOG console
- Added a second H-segment for colons on penalty time to the sec 1 digit, in hockey for FP-25 displays
- Changed the DSTI interface so it would not send back data it received but only update the scoreboards
- Added boxing code 291 for BB-3000 scoreboards
- Added the driver data for a BA-2010 to the BA-5 driver at address 61
- Added the driver data for FB-2005 to FB-8 driver at address 11
- Added 32 column captions for BB-3000 boards for TMFLS/TOL at address 225
- Changed delete of penalty time in hockey so it will scroll penalty time 2 up instead of bringing in time from penalty time 3

Version 1.5.1 Release Date: 27 December 2001

- Fixed the timeout indicators so they will clear when the main clock is started
- Changed the timeout function so it will turn on the indicator but not the timeout time when the configured time is set to zero
- Fixed the track code running time output address 22 so the colon will light when the colon is on in the RTD data
- Added address 2 to all auto racing codes for LC230 and LC218 displays (except lane timer 303)
- Default segment timer for 5 minutes

Version 1.5.2 Release Date: 6 March 2002

- Added shot clock timing to hockey/lacrosse
- Added pen/fouls display selection in addition to SOG and saves in soccer
- Added code 4499 for paint ball that uses hockey insert but has 3 penalty times that count
- In basketball, added team fouls display on line 6 of player fouls stats and made its display configurable
- Added a fixed width font conversion for auto racing in a new code (334)
- Added code 5099 for the strikeout count controller

Version 1.5.3 Release Date: 10 April 2002

- Made rodeo timer able to edit now up time in timed events mode without adjusting each of the individual timers
- Corrected $\frac{1}{2}$ point scoring setting in rodeo at power up, setting was opposite of what it said
- Change the scoreboard ON/OFF key function in rodeo so the scoreboard automatically turns back on at the start of the next competitor or at reset
- Added arena football code 9601 to American Airlines
- Added full and partial timeouts to BB-2046
- Switched SOG and SAVES position on the BB-2046 as requested (by scoreboard design)
- Resume game does not restore TOD clock correctly in hockey. Made all sports go to game clock on a new game or resume
- Added code 555 for Compulink interface for drag racing displays

Version 1.5.4 Release Date: 2 May 2002

• Made the player number entry for fouls and points (in basketball) skip past the timer delay if a key is pressed before it expires

- Adjust the dimming levels to add dim levels of 1-9
- Added codes for Resch Center
- Add new promo keys for the strikeout console used at Shea Stadium
- Added code 5599 for the sport of cricket
- Added sending of code number, model, and version number for TrueTime support. It was added to the multidrop and RTD outputs
- Made boxing not count a time of 0 in the interval time. An interval time of 0 is treated as if there were no automatic timing and stops at the next round
- Added codes for SUNY at Cortland 9403, 9603, 9703
- Added hustle board stats to basketball codes 1103, 1104, 1105. This is on address 35 and includes rebounds, blocks, assists, steals
- Added code 7611 to soccer for 4 column/digit clocks

Version 1.5.5 Release Date: 23 October 2002

- Made football code 6103 blank the total yards if rushing and passing yards are blank
- Added a segment for power-on/sponsor panel in basketball on address 35 segment 11-H and to address 17 segment 15-H
- Fixed the lock-up problem in receive of stats in basketball and hockey
- Made baseball so it could shift inning scores by 9
- Made wrestling show team score and match score based on the last score accessed
- Added general stats to football for address 28 in code 6611 for the Fargodome
- Changed the default mode to race mode in auto racing
- Made codes 6000 and 1000 update the time on the display after doing a set time
- Added code 4701 and made it identical to code 4601. Made code 4601 to work for football boards
- Added code 4602 and 4702 to have 3 penalty timers counting for lacrosse
- Fixed the problem with mass-sub in volleyball
- Added down labels 1st, 2nd, 3rd, 4th to football
- Fixed the problem of team fouls that are displayed on the 6th line of a stats panel being blanked by player stats functions
- Changed the SO-2031 soccer output to show fouls instead of penalties
- Modified scoreboards output so the driver packets are made before sending to lighten the load on interrupt overhead. Also made it so it only sends the data up to the point where the driver data has not changed

Version 1.5.8 Release Date: 3 December 2002

- Corrected a problem that caused the broadcast blank data not to be sent on power up
- Corrected a problem with the team name message centers being sent the wrong amount of data on a refresh packet
- Corrected the problem with test code 0001, blank display, and scoreboard address test so they are all now working correctly

Version 2.0.0 Release Date: 15 January 2003

- Added Water Polo code 4498
- Added address 17 to hockey codes 4401,4402 and to basketball codes 1401,1402
- Added scores by quarter for basketball
- Added scores by quarter for football
- Made rushing and passing yards work with negative numbers
- Fixed the receive of MDP from clock console in football and hockey
- Removed period key from boxing
- Made colon for adv time in wrestling test code blank
- Added shot clock test to water polo and hockey

- Made increment of period in set time so it would blank the quarter score if scoring by quarter
- Added time-outs-left (TOL) to column 15 of the rushing/passing stats boards in football
- Added segment E (col 8) to the colon of address 22 for the multi-purpose timer
- Added broadcast group and channel selection for the Gen IV radios

Version 2.0.1 Release Date: 12 May 2003

- Added checks in the verify configuration that checks to see that all clock precision settings are valid
- Added address 17 to 6402 for arena football
- Added address 17 to code 220 for tennis
- Added a wrestling code to the custom codes for the Resch Center
- Added 2 digit time to address 61 (columns 12,13) in code 5501 for baseball for the model BA-2012
- Fixed the radio channel select to work for Gen IV radios after exit from the production test
- Changed receive of DakStats® information so there is not a scoreboard update done unless the information has changed from previous data
- Added address 223 for ply/fl/pts to 4401 and 4402 and also to volleyball
- Fixed the shot clock when not set for blanking so it will count down when shot time is less than the game time
- Added code 221 for tennis models TN-2010 and TN-2011

Version 2.0.2 Release Date: 29 May 2003

- Added period/quarter/game caption to custom codes 9102, 9202, 9302, 9402, 9602
- Added an option to rodeo code 8000 in scored events to have the horn still sound after the horn time period after the timer has been stopped
- Added a football mode to the MS-2009 and MS-2118 on address 71,72,73

Version 2.0.3 Release Date: 3 June 2003

- Changed auto racing codes to not zero blank the car numbers that are displayed.
- Fixed the 4 digit display on older CH-xxxx boards to update the lap # automatically when received from AMB.

Version 2.0.4 Release Date: 6 June 2003

• Fixed the receive of data from DSTI to update when only 1 byte of data is received.

Version 2.0.5 Release Date: 25 August 2003

- Added code 556 for C33 interface
- Added code 399 for rowing controller
- Added weight class with H/G points for win on player foul stat panels to wrestling
- Added code 8610 for 8-lane track timing
- Added configuration to soccer for display of TOL or penalty
- Changed hockey so penalty does not turn off opposite penalty
- Added a second segment for colon on penalty time to address 29, 30, 31, 32 in code 4104
- Added address 11 to codes 9105, 9405, 9205
- Changed auto racing to fix lockup problem when odd numbered start position is set in variable position pylon

Version 2.0.6 Release Date: 20 November 2003

- Changed segment timer so it sends the segment number out on RTD output
- Fixed wrestling code 3304 so the segment number will show on match score

- Added captions for PERIOD/QUARTER/GAME to codes 9105,9405,9205, & 9605
- Added advantage time to foul/points on address 14 for code 3102
- Added the ability to show at bat/time on the AT BAT digits on a BA-3718
- Added address 71 to code 7711 for soccer
- Set football default to auto horn off
- Fixed auto racing codes so the scoreboard does not stop updating

Version 2.0.7 Release Date: 30 March 2004

- Added a mode for baseball on the SO-2008
- Added team name captions for MS-2009
- Fixed the test code for soccer so it will test the penalty/TOL section
- Added flashing of a player fouls and points when they are received from the DSTI
- Added generic stats for basketball so DSTI can display three points shots
- If the weight classes are turned off in wrestling, made the stat panels go blank
- Fixed team fouls on stats panels for line 6, guest side did not show on power up or resume game
- Added a key to basketball to clear team fouls
- Added the period text messages and period descriptions
- Added team name captions for FB-2002 for football, soccer, and lacrosse
- Added speed-of-pitch indicators for mild, medium, and hot levels
- Added circle K indicators to speed-of-pitch and also to promo display codes
- Added match elapsed time to wrestling, and show it and time of day on reset of a match
- Added a code to basketball (code 1301) to run the WR-2024 board
- Added a code to volleyball (code 2301) to run the WR-2024 board
- Added a code to gymnastics (code 0015) to run on the WR-2024 board
- Added a segment timer for home/guest partial team fouls on relay driver at address 220
- Added a code (4102) for handball/lacrosse for counting three penalty times on basketball boards
- Fixed RTD text field for Guest Penalty from Possess to Penalty

Version 2.0.8 Release Date: 16 August 2004

- Added address 14 to hockey codes for hockey boards and basketball codes for hockey boards
- Added a two second delay after stop of the blood/injury time before it goes back to match time
- Added a new code(6612) for four col/digit on football
- Added a new address for football (Address 18) for the FB-2007
- Made a new code (code 7702) for soccer to count over 99 minutes for European market
- Fixed basketball receive of generic stats from DSTI
- Added partial time-outs display segments on address 23 and 25 in basketball
- Fixed code 300 so the lap time shows on the old CH14-xx displays
- Added custom code 9606 for the San Francisco 49ers football board
- Added code 9100 for BB-2139 basketball board with 12 electronic player name captions
- Added period digit to soccer for a new SO-2013 board to address 14 (uses addresses 13 and 14) and also to hockey/lacrosse address 14
- Added power-on caption segments to the BB stats addresses 36 and 37
- Added save of baseball/basketball RTD to GIP when exit of stats mode is done. This allows for recovery of current game data if stats feed is lost

Version 2.0.9 Release Date: 25 October 2004

 Added captions for H/G WEIGHT to wrestling and set correct captions for codes 3101 to 3105

- Fixed the clear stats function in volleyball so it updates after the clear and does not take players out of the game
- Changed the score of +1, +3, +6 in football so that it will blank ball on, down, to go
- Added team name abbreviations (address 222) for the main sports
- Fixed electronic team name captions for USD by adding a code for basketball, football, and volleyball that supported an outdoor controller that shifts left to right
- Fixed the tennis team name captions top and bottom so the length can be set
- Added custom code (9108) for Brigham Young University for a retrofit of their old board

Version 2.1.0 Release Date: 2 February 2005

- Added a code for running wrestling on a hockey and basketball board combo, (H-2104, BB-2124) with the codes 3401 and 3402
- Added a code for field hockey that would do 3 penalty timers for H-2104, on code 4603,4703
- Corrected the message in baseball menu from error position on-off, to position
- Added a period text description code for two console operation in basketball
 and football
- Added two new driver addresses with three penalty timers in water polo
- Fixed problem in wrestling with Reset Match key, any cold key would lock it up for several key strokes
- Changed to add the weight class scores to get the total team score for the meet, if using weight classes
- Added player names to volleyball and penalty times to hockey/handball for the European board codes 9200 and 9400. Added code 9409 for handball with three penalty times
- Added display codes D7 and D8 to the compulink interface (code 555) for left and right KPH

Version 2.1.1 Release Date: 10 March 2005

- Added a code for running wrestling on a hockey and basketball board combo, (H-2104, BB-2124) with the codes 3401 and 3402
- Added error x10 digits for home and guest to baseball on address 68 and 69
- Changed water polo so the horn command bit will be sent with the shot clock horn
- Added address 23,24,25,26 to codes 1401, 4401, 3401, 2401 and 6402
- Added extra addresses to volleyball, football, and soccer for All Sport CG

Version 2.1.2 Release Date: 15 May 2005

- Added PLY/FL/PTS captions (addr 223) to the codes 9100, 9200 of basketball and volleyball
- Added quarter score outputs for football to address 29 of code 6611
- Fixed 8-lane track output to show lane # on address 12, it had the wrong rtd item #
- Added a time into period for hockey to be shown when the stop key is pressed and when arrow keys are pressed

Version 2.1.3 Release Date: 9 August 2005

- Made the clock count up operate so the clock will shift and show tenths for the first minute. This was done for the NBA.
- Added a test in soccer for fouls selection on the SO-2031.
- Added a configuration for 6-man football that will cause the 1st and ten key to do a 1st and 15 instead. This would be used in auto calculate as well.
- Added a penalty flag key for use with ball on in the auto calculate mode.
- Added a configuration for the number of downs.

• Added a MS-2013 output to Water Polo.

Version 2.1.4 Release Date: 29 September 2005

- Added addresses for smaller standard boards to 7611.
- Fixed the football TOL reset in quarter and Set Time so that TOL will update on the scoreboard.
- Fixed the RTD output in football when receiving from a smart clock console.
- Added a code to handle University of South Carolina Retrofit. Code 9610
- Added address 222 to code 1301 for basketball. This is for Allsport CG.
- Added address 221, 222 to code 6604 for football. This is for Allsport CG.
- Added address 14 to code 2111 and 2112 for volleyball. This is for Allsport CG.

Version 2.1.5 Release Date: 5 January 2006

- Fixed the problem in football in autocalculate where the Ball on Down To Go are all blank after a score is made and the console locks up.
- Fixed the Team score update on matside junior scoreboard after reset match and points are awarded.
- Fixed Tenths of a second on the scoreboard occasionally skipping (does not lose time, just misses on scoreboard) when data from DSTI comes in. Revised how data is received and removed from serial buffer.
- Fixed code 1000 for clock console so set shot time updates on the display after the time is set.
- In code 1000 and 6000 the reset 1 and 2 switches were made to reset and hold the time until the switch is released.

Version 2.1.6 Release Date: 20 January 2006

• Added code 0557 for PortaTree.

Version 2.1.7 Release Date: 24 March 2006

- Added a warning time horn for a partial timeout using the full timeout warning time
- Made a menu option to select if the team score is shown on team score/adv time section of the matside board
- Added new address to baseball for a 2 driver inning board, model BA-2022
- Changed the Mass Sub function in basketball so that it will not exit if you answer NO to the question of add player
- Fixed the Wrestling advantage time edit so if the advantage time is set to 0:00 for one team and then started for the other team it will count correctly
- Added custom code 0091 to replace an existing 2400 time of day console
- Added support for receive of DSTI data in Hockey code
- Changed baseball code to clear ball, strike, outs at top and bottom of inning, and clear of batter and average
- Added a key to clear the batter number and batter average
- Changed entering of average in baseball, so the value is padded with leading 0's
- Added recovery time keys to wrestling
- Changed wrestling so the blood/injury times remain on the display until a key is pressed

Version 2.1.8 Release Date 26 May 2006

- Added address for FB-2007 to soccer , football and baseball
- Fixed speed pitch so the stalker sport gun will work
- Added a team name caption for PERIOD/HALF to soccer codes, for Atlanta.
- Fixed problem with team name edit in tennis for the second name
- Made baseball auto increment of innings update the period text as well
- Made the outs +1 key clear ball, strike, batter and average when it switches sides

Version 2.1.9 Release Date: 9 August 2006

- Fixed a problem with some consoles that will not run test code 0000 in production
- Added address 24 and 25 to code 6604 and 7604
- Added possession indicators (full col) to address 16 in football codes

Version 2.2.0 Release Date: 8 January 2007

- Changed code 9101 to make the dash on full and partial timeouts to always be
 on
- Also added team abbrev to the code, address 222
- Added a code 9111 for Georgia Dome
- Added a QUARTER caption for football in code 6601, to match the HALF caption in soccer
- Added a countdown timer code 370 that has an output with days and time (with tenths of sec)
- Added captions for baseball codes 5601 and 5602 to match the captions in football and soccer on address 226
- Added a separate warning time for the partial time outs in basketball
- Fixed the advantage time in wrestling to update the home and guest advantage areas after an edit. Also fixed the adv time when it was edited to blank or zero so it would count right, it was counting almost 2 sec before it went to 1

Version 2.2.1 Release Date: 23 May 2007

- Changed the way speed pitch data is read. There was a problem if radar guns were switched that the next speed would be missed
- Fixed the half TNMC caption in soccer codes, it was not correctly positioned
- Added address 19 for the new FB-2018 and SO-2018 boards to football, soccer, hockey, baseball, and track
- Added pitch count output to address 3 and to H/E digits on address 64, 65, 67

Version 2.2.2 Release Date: 21 June 2007

- Fixed the scoreboard test for baseball HE digits after pitch count was added to these digits in the last version
- Added custom codes for Madison Square Garden 9112, 9412, 9901
- Added a selection for showing laps-to-go in the autorace code 333
- Added an output (addr 10) for 6 digit time displays in autoracing
- Added an alt_seg_rtd to football, basketball, and hockey, for the segment # to show on shot/play clock digits
- Changed the autorace function getDatCarNum to set the car # blank if it gets a space or something other than a number

Version 2.2.3 Release Date: 23 August 2007

- Fixed so the code, model, and version number are sent when a new code or resume code is done.
- Fixed wrestling weight classes in position 1 and 2 to display correctly when set for a 5 line display and when selected for showing lines 13 and 14.
- Added code for Australian football and cricket. Code 6699-FB and 5699-CR.
- Fixed a bug in edit of quarter scores in football and basketball. Locks up if a cold key is pressed when waiting for quarter # entry.
- Changed baseball to show time/atbat/pitch on time digits and show HE/atbat/ pitch on the HE digits.
- Added TSI interface code 558 to drag race timing codes.

Version 2.2.4 Release Date: 5 September 2007

 Made a change to hockey so SOG console input will override DSTI input, and DSTI will resume on loss of SOG input.

Version 2.2.5 Release Date: 17 October 2007

- Added cricket code 5598 for a replacement to the AS3000 cricket code.
- Added code 5590 for the CR-2004 cricket board to be used as a test mode only.
- Added the old 12.8k baud addressable driver protocol that was in the AS3000.
- Added a test code for multiple court tennis displays that will test all addresses.
- Removed the Saves caption and data from code 9412 for Madison Square Garden.

Version 2.2.6 Release Date: 31 October 2007

- Modified hockey receive of DSTI so it will resend SOG on the RTD if it has changed.
- Added custom soccer code 9714 for Tottenham, C#7911.
- Added address 20 and 230 to code 229 for tennis test code.
- Added address 35, 36, 37 to code 9105 for hustle stats.

Version 2.2.7 Release Date: 11 February 2008

- Added more period time settings to wrestling. Periods 6, 7, 8, 9 were added.
- Added testing for a lane, place, time module to the track testing code.
- Added the & symbol on a shift key for team name.
- Added a test code for the 12.8 protocol codes.
- Fixed the volleyball indv. Sub for new player, did not work until after the player is added.
- Added Custom code for retrofit for Wright State Univ.

Version 2.2.8 Release Date: 11 April 2008

- Added custom BB (9116) and HK (9416) codes for Harbour Station.
- Added a test function in the test code 0001 for para-mutual displays.
- Changed output for MS-2009 display so the Ckicks digits can be set to show Saves.
- Added addresses 24,26 to code 3105 so the stats panels 2nd driver will have signal.
- Added a segment output to control the top colon dot for TOD in code 300 of Autorace.

Version 2.2.9 Release Date: 8 August 2008

- Changed SetTime so the period number will not increment if Pregame time had counted down and the period is currently set as number one.
- Added a scoreboard test to football for play clock.
- Added custom code for Univ of Idaho.
- Fixed Clear Batter/Average function in baseball so it will update on the display.
- Made the Time/At Bat combo digits configuration change to At Bat when a valid DSTI packet is received.
- Added electronic TNMC for FB, SC, LC, BA for football boards model 2024 thru 2027.
- Adjusted TNMC messages on the MS-2009 to fit in 4 separate 32 column captions.
- Added a mode to receive MDP data on COM1 and retransmit the data on the radio port so the AllSport can be used as a radio link to scoreboards.

Version 2.3.0 Release Date: 11 November 2008

- Adjust code for TSI interface (code 558) so it does not ignore packets that have too high of intensity values. Also fixed so the decimal point does not blank with a value of zero in x.1 digit.
- Added codes for Rugby Union 6690 and League 6691.
- Added batter position digits for NY Yankees, and fonts to support them.
- Added custom code for University of Louisiana (code 9618).
- Added address 17 to code 9402, 9102 for use at Rapid City Arena.
- Added selection of separate shot clock horn in water polo.

Version 2.3.1 Release Date: 4 February 2009

- Fixed Timeout ON/OFF key so partial timeout warning time is set in for compare.
- Added reset of timeouts at Game +1, set to configured number of full timeouts for each side.
- Added a code (355) to run the Matside WR-2025 on the old 12.8k addressable protocol.
- Fixed wrestling advantage timer so it does not count down from zero if sides are switched at the zero count.
- Added custom codes for E-Center upgrade.

Version 2.3.2 Release Date: 22 May 2009

- Added a custom code for New York Yankees for receiving stats, (except for ball, strike, out) which need to work from the console.
- Changed pitch speed type names to the correct spellings.
- Added code 7612 for soccer to align with 6612.
- Made the user pitch type text configurable.
- Added period digit to address 19 in soccer, lacrosse.

Version 2.3.3 Release Date: 30 September 2009

- Added code 9119, 9419, 9619 for Bradley Center.
- Added basketball code 9120 for University of Alabama.
- Made a change to the receive of MDP data in code 5900 to correct a problem with momentary swapping of bytes in the data received.
- Added an output for shot clock =0 in basketball on output 7-D in address 1. This was for the NBA light strips.
- Added an interval horn timer in hockey.
- Fixed a bug with set time that did not increment the period from 3 to 4.
- Added volleyball code 9220 for University of Alabama at Birmingham.

Version 2.3.5 Release Date: 24 November 2009

- Fixed hockey interval timer horn output to do both segment and horn bit.
- Added receive of player names to codes 9120 and 9220.
- Added colons to penalty time output in hockey for the Bradley Center.
- Changed hockey 'PLY PENALTY', thmc caption to 'PLR PENALTY' for Bradley Center in code 9419.
- Added address 14 and 17 to BB, VB, WR, FB for use by AllSport CG at Idaho State.
- Fixed game clock tenths skipping problem on stat console when receiving smart clock data and the shot horn or the main horn sound.

Version 2.3.6 Release Date: 18 March 2010

- Fixed the wrestling weight class RTD output for positions 13 and 14 so they will output the points for the winner.
- Improved on the latency between the period clock "end of period" and the stopping of the advantage timer clock in wrestling.
- Changed volleyball games and games won to sets and sets won.
- Menu for radio sync-to-channel added.

Version 2.3.7 Release Date: 21 October 2010

- Added custom squash code 2901 for Qatar.
- Fixed electronic captions for soccer on MS-2009 to show saves, ckicks, or fouls.
- Added custom bike racing code for Indiana.
- Added 32 items of stats in baseball.
- Added custom football code for E-Center.
- Added custom code for Colorado State Univ C17773.
- Added curling as standard code number 4501.
- Added custom code for 8 digit time in track codes 8790 & 8791 and also soccer code 7791.
- Added max speed setting in speed pitch for accepting received speeds.

Version 4.0.0 Release Date: 30 March 2011

- Added an offset selection for RTD output.
- Added standard code (4611) for Hockey at Heinz Field.
- Add custom code for American Bank Center codes 9122, 9422, 9622.
- Changed baseball configuration score by inning default to Yes.
- Added addresses 71 and 72 for new baseball board BA-2025 BA-2029.
- Added address 28 and 29 for new soccer board SO-2043.
- Added address 32 for new football board FB-2028.
- Added custom code for Rose Bowl football code 9623.
- Fixed the Clear Hit/Error function to set RTD to space (20hex) and not blank.
- Added code for the use of serial eeprom as non-volatile memory, to replace nvram.
- Fixed problem of scoreboard outputs not working after going from an old 12.8k baud code to (Menu New Code) and then running any MDP code.

Version 4.0.1 Release Date: 27 May 2011

- Added RTD items for team name possession in football codes.
- Added a test code (code 201) for swim module testing.

Version 4.0.2 Release Date: 2 August 2011

- Added a tenths of second selection for the shot clock operation.
- Fixed a problem with the receive of smart clock data in basketball and football.
- Fixed code 9200 for player names not showing in the RTD output.
- Added drive chart data for FB, which includes possession, drive direction, side of field, and ball on.

Version 4.0.3 Release Date: 27 February 2012

- Changed shot clock RTD to only update when changes happen, not always every 0.1 sec.
- Added address 222 to the sports FB, BB, and VB for USD code 9607.
- Changed radio broadcast group settings to allow for 8 groups.
- Added team substitution key for volleyball to track team substitutions.
- Used the update player/foul and player/point settings to determine if DSTI should update the common area for player/fouls.
- Added lacrosse custom code for Univ of Vermont.

Version 4.0.4 Release Date: 15 June 2012

- Added address 19 to code 9610.
- Added address 20 to tennis codes.
- Added support for 16 high 34mm team name display.
- Set auto inning increment off in baseball 5519 custom code.
- Added electronic captions for basketball board BB-2153 for BB, VB, and WR.
- Added custom code for Green Bay, with 2 digit period in football.

Version 4.0.5 Release Date: 4 January 2013

- Added Super Goals keys to Australian football code 6699.
- Added Tackles keys to Rugby code 6690 and 6691.
- Added fielder's choice to baseball, for use in C20390 for Japan.
- Added additional radar gun config choices.
- Added possession ind (on full column) and score to address 19 in football for new poss indicators that use a full column to run.

Version 4.0.6 Release Date: 11 February 2013

- Updated ram test for production test.
- In hockey changed the edit of penalty player # so it would not adjust the time when Enter is pressed on the time section.

• Fixed the wrestling Reset Match key so period text would update when it was pressed.

Version 4.0.7 Release Date: 14 August 2013

- Fixed problem of a DC run console in pitch speed code 5500 sending standard and Enhanced RTD because of TOD increment in 100 hz interrupt.
- Added address 232 to Scoreboard test code 0002, so the All On test displays on 16x80 guest TNMC.
- Change electronic caption text in hockey for MS-2009 from PLY to PLAYER.
- Added custom codes with French captions for Football boards.
- Added 16x80 TNMC to baseball code 5501.

Version 4.0.8 Release Date: 17 January 2014

- Added 'C' to the F on the two fixed digits display for baseball to better indicate fielders choice
- Added 16x80 TNMC to soccer codes
- Added a fix for 60hz detect, to resolve noise issues on power input
- Added fix to filter noise out on 60hz interrupt, to correct TOD error
- Added address 19, electronic captions addr 227, and 16 hi team name addr 231-232 to eight lane track code.
- Added shot clock output to columns 9, 10 on address 1 for indoor football and lacrosse, to be compatible with clear shot clocks with tenths digit.

Version 4.0.9 Release Date: 26 March 2014

- Added radio diagnostics menu to the display menu for all codes.
- Added a period caption to lacrosse codes 4601 and 4603 for MS-2918 boards.
- Added address 17 to codes 9423 and 9424 for lacrosse sport on the SO-2011.

Version 4.1.0 Release Date: 18 August 2014

- Added outputs for SO-2043 to the output in Rugby code 6690.
- Added an Inning caption to baseball codes 5501, 5601 and 5602 for MS-2918 boards.
- Added outputs for clock=0 to 1-h and game horn to 2-h for address 1 in bb,hk,vb and wr.
- Changed football so play clock reset 1 config value gets set in the play clock on new game.
- Added penalty indicators on 10-E,F to address 71 in code 4601 to match 6601, for adding to MS-2009.
- Added a FIBA setting in bb, hk, and vb to allow for time outs taken and for blanking shot clock when reset button is pressed

Version 4.1.1 Release Date: 15 January 2015

• Made changes to call clock update again if a shot clock update is in the que after a main clock update. This is so the main clock and shot clock will go out in the same transmission, for video playback.

Version 4.1.2 (Not Released)

Version 4.1.3 Release Date: 3 March 2015

• Added code 5001 for baseball pitch timer for MLB.

Version 4.1.4 Release Date: 6 April 2015

• Added a configuration item to the pitch timing code to select blanking the display when time equals zero.

Version 4.1.5 Release Date: 18 August 2015

• Added code 5002 for pitch timing with addition of timer adjust keys, per their requirement.

- Changed TOD timing when running on battery to use the 1000 Hz timing interrupt.
- Added driver code download command to the display menu.
- Added codes 1901-1905 in basketball to have an added break timer for NBA.

Version 4.1.6 Release Date: 24 September 2015

- Added time adjustment keys to the NBA break timer codes. These keys are used to adjust the time by 30sec, 75sec, and 105 seconds.
- Changed the driver program download to allow for not erasing the driver configuration. This is controlled by 2 bytes in the header of the .fud file.

Version 4.1.7 Release Date: 19 October 2015

- Made changes so TOL can be set to blank for total TOL in soccer.
- Added an indicator for fielders choice, this was done on a new address with ball, strike, out and hit/error.
- Added the drive time clock to 2 console mode in football.
- Adjusted the break timer codes (1901-1905) so they do not start a time out time, as it overrides a break time currently running.
- Added 10-E and 10-F for penalty to HK2030_1 driver table in hockey.

Version 4.1.8 Release Date: 17 January 2016

- Added break timer output to custom code 9501.
- Fixed an issue with a decimal point remaining in the RTD output when receiving clock data from a smart console in basketball.
- Added the heartbeat clock packet in the RTD output to the lacrosse codes.
- Added the heartbeat clock packet in the RTD output for the pitch timer code 5001.

Version 4.1.9 Release Date: 7 July 2016

• Corrected a problem that caused some consoles to have the LCD show all one character on the entire display at power up.

Version 4.2.0 Release Date: 16 August 2016

• Added football code 9623 to support football on lacrosse boards run with 9423, 9424.

Version 4.2.1 Release Date: 26 January 2017

- Added test code for football with 5-6 digit clocks, Code 6901.
- Added configured stats address to volleyball and changed baseball to generic with 16 stats per address.
- Added Pitch Count x100 digits to baseball.

Version 4.2.2 Release Date: 21 March 2017

- Made a change so the shot clock would work correctly for blanking the shot time, when and if the shot time was set in the range of 0:60 to 0:99. This was for use in Lacrosse.
- Added an At Bat indicator to address 12 on 9A(home) and 9D(guest). This is used by the AllSport CG.
- Changed the output for the digits on address 2 in baseball to be only time digits, and not the configured items of At Bat or Pitch count.
- Corrected the sport RtdLen value in baseball.

Version 4.2.3 Release Date: (BETA)

- Added Rugby Start-Tackle and Max Tackle menu items plus Reset Tackle key.
- Added Configurable Football Ball-On value.

Version 4.2.4 Release Date: 4 April 2018

- Removed Cricket code 5599 to provide code space for NVI code 5595.
- Added Cricket code 5595 NVI ERTD input.

Version 4.2.5 Release Date: 2 May 2019

- Added All Sport Pro Support
- Added K-Stats Support
- 3-digit pitch count now clears properly on configurable scoreboard sections on Clear Pitch Count Home/Guest keys

3 All Sport 5500 Revision History

Version 1.0.0 Release Date: 8 January 2007

• Initial software release

Version 1.0.3 Release Date: 28 February 2007

- Added Team Name captions
- Added electronic captions for stats panels
- Fixed the operation of test codes

Version 1.0.4 Release Date: 6 March 2007

- Changed initialize of cnfg pointer in BB, BB, and WR before any other functions
- Changed the locations of the address, digit#, and color test keys in the test code

Version 1.0.5 Release Date: 18 June 2007

• Added download of driver program through console from Dakloader software

Version 1.0.6 Release Date: 20 November 2007

- Added color test to scoreboard test code 0002
- Removed MDP scoreboard functions and references to MDP items

Version 1.0.7 Release Date: 18 June 2008

- Added configuration for horn output
- Added configuration for light output
- Changed dimming to update when selected in menu
- Added more error checking to driver program download
- Added multiplexed driver outputs for ply/fl/pts boards
- Added hockey codes
- Added football codes
- Added multipurpose timer
- Corrected so clock will show default color if clock is not set for changing color

Version 1.0.8 Release Date: 10 December 2008

- Changed shot clock data to be sent with no minutes
- Fixed partial time out so it had a warning horn time
- Added a reset to the number of time outs in volleyball when game +1 is done

Version 1.0.9 Release Date: 8 January 2010

- Made changes to the advantage timer in wrestling so it does not count down from zero if sides are switched at the zero count
- Added full and partial timeout data to scoreboard refresh in basketball
- Added a new test identity code to the 5500 for production testing

Version 1.1.0 Release Date: 12 March 2010

- Changed game and games won to set and sets won in volleyball codes
- Added the selection for radio sync and no-sync in the display menu
- Changed so the radio settings are sent when a code is selected, using previous settings

Version 4.0.0 Release Date: 4 April 2011

- Added support for the use of serial EEprom as non-volatile memory.
- Added an offset selection for RTD output.
- Fixed the Clear Hit/Error function to set RTD to space (20hex) and not blank. (Baseball code is not yet released but was added to follow the AS-5000 changes)

Version 4.0.1 Release Date: 22 August 2011

• Changed power loss detection to not show battery low message if not running from battery.

• Changed refresh tables to use dedicated game clock RTD items.

Version 4.0.2 Release Date: 21 January 2013

- Added update to allow the console to continue to run if battery low interrupt happens and the power level is restored.
- Fixed wrestling so advantage time shows on address 17.
- Added ply-fl-pts to address 33 and 34 in basketball, vb, and wr

Version 4.0.3 Release Date: 14 August 2013

• Updated so that the code # and version get sent out in basketball on address 254.

Version 4.0.4 Release Date: 11 March 2014

- Set default clock alert time to 1:00 for basketball.
- Added in a delay for radios before sending the configuration.
- Fixed a problem with the guest double bonus ind when the clear fouls key pressed, did not update immediately.

Version 4.0.5 Release Date: 17 July 2016

• Fixed the problem with some ram chips causing the LCD to show all one character at start up.

Version 4.0.6 Release Date: 9 September 2016

• Added a fix for 60hz detect, to resolve noise issues on power input. This caused a Low Battery message to show on the LCD if there was noise on the power input at start-up.

4 OmniSport 2000 Revision History

Version 2.8.16 Release Date: 16 August 2002

Swimming

• Initial software release

Version 2.8.19 Release Date: 19 August 2002 Swimming

- Moved the button and backup labels under the lengths label on the printouts so that the '*' stands out more for marked times.
- Added extra spacing between the last backup/button time and the next lane on the printouts.
- Added program version to the settings printout.

Version 2.9.10 Release Date: 10 September 2002

General

- Corrected the ED number shown on the center LCD after power up.
- Added a PAPER message to the right LCD to indicate when the printer is out of paper.
- Updated the messages shown during the LCD test step of the product test.

Swimming

- Allowed the maximum event number to be 999.
- Added a request for configuration data from the Pro software.

Version 2.9.27 Release Date: 27 September 2002

Swimming

- Added a set time-of-day command for the Pro software.
- Added the ability to edit and print a diving event in the event order.
- Corrected a problem with the multiline test code.
- Corrected a printer problem of large spaces between characters.

Version 2.10.11 Release Date: 11 October 2002

Swimming

- Added a Start/Finish List request from the Pro software to be sent to the meet manager.
- Corrected a printer problem with the paper status.

Version 3.1.7 Release Date: 7 January 2003

Swimming

- Added the ability to receive the home, guest 1, guest 2, and guest 3 team scores from Hy-Tek MEET MANAGER.
- Added a race transfer complete command from the Pro software.
- Added ability to print the current running time for the +Touch operation when a lane is armed for finish.
- Corrected miscellaneous small problems with the meet manager and Pro software interfaces when the OmniSport 2000 timer is configured to work as an OmniSport 6000 console.

Diving

• Added first release of program with integration to swimming from the event order.

Version 3.3.28 Release Date: 28 March 2003

General

• Added control of radios for the multidrop scoreboard protocol only.

• Increased the number of multidrop nodes to include address 1 and 22 for all sports plus standard football scoreboards for track and water polo scoreboards for water polo.

Swimming

- Added display of subtractive splits on the numeric and matrix scoreboard outputs.
- Added "Daktronics" logo to matrix scoreboard output.
- Corrected problem with subtractive splits configuration not being stored.
- Corrected problem with home/guest 1 score module on CTS scoreboard outputs.
- Corrected problem for cumulative and subtractive splits printing for lanes that were turned off.
- Corrected problem with the lane and place being swapped on the single line of the matrix scoreboard output.

Diving

- Added capability to control the CAN (control area network) judge's consoles and a test function to the menu.
- Added capability to edit the total score for current diver from the keyboard.
- Corrected problem with total score being printed incorrectly on the dive log after reaching a certain value.
- Corrected problem of a Failed dive not setting all judges to a score of '0.0'.

Water Polo

• Added first release of program.

Track

• Added first release of program.

Version 3.4.10 Release Date: 10 April 2003

General

• Corrected the printer and lane module tests for production testing.

Water Polo

• Added control of the horn on the multisport module for the multidrop scoreboard protocol.

Version 3.4.18 Release Date: 18 April 2003

Track

• Added the Non-Lane timing mode.

Version 3.4.23 Release Date: 23 April 2003

Track

- Added Place timing mode.
- Modified operation of multiline scoreboard outputs.

Version 3.5.15 Release Date: 15 May 2003

General

• Changed from a 7 segment to an 8 segment font on the single line output for swimming, track and water polo.

Version 3.6.18 Release Date: 18 June 2003

Diving

 Corrected a bug that would make the "Enter Judge Number" text not appear on consoles with recent CAN terminal software (any CAN terminal that auto arbitrates ID's)

Version 3.7.18 Release Date: 18 July 2003 General

• Changed from a 7 segment to an 8 segment font on the game/shot clock and locker room address of the multidrop protocol for incandescent scoreboard compatibility in all of the programs.

Diving

• Completed an official release of the interface to the Diving Pro Windows application.

Pace Clock

• Added first release of program.

Version 3.9.10 Release Date: 10 September 2003

Swimming

• Corrected problem of requests from the Swim/Dive application on a Venus 7000 and the 'Scoreboards' tab of the OmniSport 2000 Pro swimming application not being transmitted to a Venus for display.

Version 3.9.23 Release Date: 23 September 2003

General

• Modified the production test so that the default configurations will be set when the console is first run after this.

Swimming

• Corrected problem in the function that updates race information to the Pro software so that if lane 1 is turned off it will not send over back-up times.

Version 3.10.30 Release Date: 30 October 2003

Swimming

• Added the address for the standard water polo board (13) and displayed the home and guest score on that board.

Pace Clock

• Fixed the display of 'r' on the min x10 digit for rest time. It was not clearing any old data that might have been on the digit.

Water Polo

- Changed where the shot clock was displayed. It was displayed on min x1 and sec x10 digits and was moved to the sec x10 and sec x1 digits.
- Added the address for the MS-2013 (11) and displayed time, score, and period.
- Added the display of clock and shot clock data to game/shot address (1).

Version 4.1.12 Release Date: 12 January 2004

Swimming

- Added a configuration that allows blanking the place information for intermediate splits on the RTD Port.
- Corrected the digit assignment for the event/heat and guest 2/guest 3 modules on the CTS output.

Version 4.1.23 Release Date: 23 January 2004

General

• Added Channel 0D and 13 to CTS scoreboard output for home and guest scores.

Swimming

• Eliminated timeout in Hy-Tek software waiting for button times from Results output when none were recorded on the lane modules.

Water Polo

- Added control of horn to CTS scoreboard output.
- Corrected layouts of 1 to 10 line scoreboards on the Multidrop and CTS scoreboard outputs.

Version 4.4.13 Release Date: 13 April 2004

Diving

- Added interface to dive results program on Results Port.
- Added display of event number and round on the RTD Port.
- Added judge's console status to LCD and transmission to Pro application.
- Corrected periodic lockup problem with judge consoles.

Pace Clock

• Corrected problem of another edit key being pressed while editing step type (swim, rest, etc.).

Version 4.10.28 Release Date: 28 October 2004

General

- Increased the maximum number of judge consoles from 9 to 18 for synchronized swimming.
- Added support for control of wireless handheld judge's consoles.

Swimming

- Added tenths of a second to CTS output.
- Corrected problem with the transfer of DQ's from the Pro application to the meet manager when the race number was greater than 255.

Diving

- Added support for synchronized diving in the Diving Pro application.
- Corrected problem with the transfer of the dive order from meet manager to timing console.

Pace Clock

• Corrected problem with STOP being first step in workout.

Synchronized Swimming

• Added first release of program.

Track

- Added tenths of a second to CTS output.
- Added configuration for always showing the running time on a single line scoreboard for the non-lane timing mode.

Version 5.1.4 Release Date: 4 January 2005

Swimming

- Added ability to record start reaction times on relay takeoff sensors.
- Increased number of relay exchanges from 3 to 6.
- Added ability to transfer start reaction and relay exchange times to meet manager.
- Added ability to display start reaction times on Enhanced RTD output when the mode is set to Lane order.
- Added ability to display the start list and reaction times on the RTD Port by lane when the mode is set to Place order.
- Modified position of 'F' and '*' on the printouts.

Water Polo

• Added address 15 and 16 to show up to three home/guest player-penalties on dedicated displays.

Version 5.2.2 Release Date: 2 February 2005

Swimming

• Limited relay exchanges to Near end only.

Version 5.2.23 Release Date: 23 February 2005

Swimming

- Added configuration for showing start reaction times on the RTD Port.
- Modified configuration to show 'BTN/DAKTRONICS' and 'OMEGA PLATFORM' for Relay Take-Off in the Setup-Timer menu.
- Limited function of relay platforms to relay events only when event order is downloaded from the Meet Manager or Pro application.
- Decreased number of relay exchanges from 6 back to 3 and limited the active length numbers to 4x50, 4x100, etc.

Water Polo

- Added control of horn segment on 7-E of address 1.
- Added additional columns for shot clock and control of horn segment on 5-H of address 2.
- Increased priority of the update for the game clock, shot clock and horn.

Version 5.3.15 Release Date: 15 March 2005

Track

• Added ability to page through all competitors into Non-Lane timing mode.

Version 5.4.21 Release Date: 21 April 2005

General

 In die C3 of 80C390, the SMOD_1 bit for Serial Port 1 seems to be ignored and the baud rate is always doubled (WDCON.7=1) so the reload values of Timer 1 were adjusted.

Version 5.9.30 Release Date: 30 September 2005

Swimming

• Changed the menu setting text for relay platforms from saying "Arming Delay" to "Arm Time".

Track

• Changed the menu setting text for running time selection on a single line display from "no splits" - "splits" to "continuous" - "finish".

Water Polo

- Added a setting to control if the main clock stops when shot clock reaches zero.
- Added a setting to select if the shot clock will reset when a penalty time is entered.
- Added a setting to select if the main clock timing is automatic or manual.
- Added new configured time settings for Rest 1, Rest 2, Warning, and Overtime.
- Changed the Set Time key function so that it allows for selecting the type of time period to Enter. Each press of the key goes to the next type of time period.
- Added partial time out settings for number and time of partial time outs.
- Added more players to player list, now can go to 99 players.
- Changed RTD output from a fixed 1-13 players penalty numbers to 25 positions of variable player numbers and penalties sorted by those with most penalties at the top.
- Fixed a bug with Set Time that added one second to the time if the Set Time was exited by pressing the clear key twice.

Version 5.11.15 Release Date: 15 November 2005 Swimming

Modified confirmation of a valid exchange time to be based upon a Daktronics or Omega RTOP.

Version 6.2.16 Release Date: 16 February 2006

Swimming

• Added display of subtractive splits on dedicated item numbers on the RTD Port.

- Corrected problem of DD x0.1 remaining on numeric scoreboards when returning from diving in the event order.
- Added recording of Split Arm, Finish Arm, and other operations on the Pro software to the race log.

Version 6.4.25 Release Date: 25 April 2006

Diving

- Included support for the additional RTD items in the 'Set Scoreboard' packet.
- Enabled some menu items when controlled by Pro software.

Water Polo

- Added configuration item for independent horns.
- Split up main clock and shot clock horns so they can sound separately or together based on the configuration.

Version 6.12.7 Release Date: 7 December 2006

Swimming

- Completed remaining configuration and display control items on Pro application.
- Added indication of an overly active input in the lane status and took measures to safeguard critical data transmitted to the Pro application when this problem occurs.

Version 7.1.22 Release Date: 22 January 2007

Swimming

- Improved communications so that diving events cannot be selected from the event order using the Pro application (timer only operation).
- Added ability in "Minu Touch" to remove the corresponding relay exchange time for the given length.
- Added indication in lane status for battery low signal from relay takeoff platform.

Version 7.2.8 Release Date: 8 February 2007

Swimming

• Corrected problem where the middle button time was not always selected as the backup time for three button backup timing when using a Daktronics RTOP and a button in the same input.

Version 7.11.30 Release Date: 30 November 2007

Swimming

- Changed from printing a true zero (0) character to a capital 'O' character to avoid confusion with an eight '8' character.
- Added a Number of Copies configuration for the results printout.
- Added the ability to select an offset (0, 5k, 10k, 15k) for the RTD item number.
- Added the DQ status to the PLACE digit of a numeric scoreboard controlled by the MULTIDROP protocol on the scoreboard outputs.

Water Polo

- Shifted the penalties for home and guest down a line on the 6 and 8 line setting for the Multidrop, Multiline, Omega, and CTS scoreboard outputs.
- Added the ability to print a game log on the internal printer.
- Corrected a minor bug in the starting of a guest partial timeout.

Track

- Added address 19 to drive the second driver of the new football and soccer scoreboards.
- Added the DQ status to the PLACE digit of a numeric scoreboard controlled by the MULTIDROP protocol on the scoreboard outputs.

Version 8.3.7 Release Date: 7 March 2008

Swimming

Added ability to record relay exchanges on far end for a 4x50 relay in a 50 Meter pool.

Version 8.3.27 Release Date: 27 March 2008

Swimming

- Added a numeric value (0 or 1) to indicate the status of the logo at offset 1067 in the RTD.
- Added support for the "Swap Order" button on the Current Race tab of the Pro interface.

Track

• Added a value (0 or 1) to indicate the status of the logo at offset 1067 in the RTD.

Version 9.4.6 Release Date: 6 April 2009

General

- During the power up sequence of the timer, the proper format to enter the data is shown for the initial DATE (mm/dd/yy) and TIME (hh:mm:ss) entry screens.
- Added support for a request from and transmission to the Pro application for the version number of the program in the timer to help ensure compatibility.
- Added another check of the CTS pin in the write functions to the printer to prevent an overrun condition during the transmission of data to the printer's internal buffer.
- Changed the print routines to send only a Line Feed (LF) character to terminate a line on the printer. Sending a Carriage Return (CR) character prior to the LF was causing compatibility issues with the latest version of the printer firmware (5.65 / 5.75).
- Added the ability to transmit Multicast protocol on the Scoreboard Outputs to support the next generation of numeric scoreboards.
- Increased the levels of dimming from 3 to 9 for the Multidrop and Multicast protocols.
- Added an Automatic/Manual dimming mode for the Multicast protocol.
- Added the ability to select 12 hour or 24 hour format when displaying the Time of Day on the numeric scoreboards.
- Added the ability to send the Home, Guest 1, Guest 2, and Guest 3 team scores on the RTD port for swimming, diving, and track.
- Added the ability to send RTD at an offset (5K, 10K, 15K) other than 0 for the remaining sports.
- Corrected a small problem in Scoreboard On/Off operation where the blanking of the RTD was done at an offset of 0 only (ignored the RTD Offset setting).
- Made a slight modification to the method for updating a CTS output to ensure better compatibility with a Colorado Time matrix controller.

Swimming

- Changed the criteria for setting the initial arming delays on the near end and far end touchpad inputs for a normal start by an external starting device, Always Ready Start operation for a missed start signal, and if the operator manually edits the start time.
- Reduced the default arm time for the RTOP window from 1.0 to 0.8 seconds.
- Made a correction to the ARM TIME window for the RTOP. Positive relay exchanges at or near to the value ARM TIME were not being recorded.
- Added the ability to determine the source (main or store/print dialogue) of the Lane On/Off command from the Pro application so that the correct operation is performed on the timer.
- Added the ability to automatically force another Store/Print operation upon reset of the timer when various operations (such as Edit, DQ, etc.) are performed after

the initial Store/Print. This helps assure that the current race information is properly stored in memory and available for retrieval by the Meet Manager application.

- Corrected a problem with a negative lane number being generated for REVERSE ORDER setting on extra lane modules connected to the timer and invalid data being sent to the Pro Swim application.
- Added a selection for showing the Start Reaction times on the Numeric scoreboards.
- Added a selection for showing the DQ status only or the DQ status along with the split/finish times on the Numeric and RTD/Matrix scoreboards.
- Added the ability to resume the paging of finish times for all of the lanes that have a valid finish time upon reset of the timer. Previously, the paging would stop if all of the unused lanes were not turned off.
- Added the ability to show '0.00' for the running time on single line scoreboards upon reset of the timer when the Finish Page Time is set to a value of zero (0). Before, the scoreboard would show the first place swimmer until the start of the next race.
- Added an "Official Results" field to the Enhanced RTD that is set when the Swap Order button is selected on the Pro Swim application.

Diving

- Corrected a problem of the Total Score not printing properly when the judge scores were accepted on the Pro application and the value exceeded 255 points
- Added receive of the RTD Offset and Display Dimming settings from the Pro Dive application.
- Added control of additional CTS modules to drive a CTS matrix display.

Pace Clock

• Corrected a problem with all lines of the scoreboard not being updated properly on a Reset All operation.

Synchronized Swimming

• Added receive of the RTD Offset and Display Dimming packets from the Pro Synchronized Swimming application.

Water Polo

- Made a correction in the Reset operation not setting the step back to TIME from a REST step. Also, set the game time to an OVER value when the period number was greater than 4 instead of a PERIOD value.
- Made an addition to the PERIOD and PERIOD +1 operations so that they were invalid during a REST step.
- Changed the title in the Timer Menu from AUTO RUN to AUTO SEQUENCE to better indicate the operation of the timer.
- Added a Print Menu and a selection to print the current settings from the menu.

Track

- Added the ability to transmit the finish times to a Meet Manager application for heats that were timed using the Lane, Place, and Non-Lane timing modes of the timer.
- Added the ability to automatically force another Store/Print operation upon reset of the timer when various operations (such as Edit, DQ, etc.) are performed after the initial Store/Print. This helps assure that the current race information is properly stored in memory and available for retrieval by the Meet Manager application.
- Added a selection for showing the DQ status only or the DQ status along with the split/finish times on the Numeric and RTD/Matrix scoreboards.

- Added the ability to resume the paging of finish times for all of the lanes that have a valid finish time upon reset of the timer. Previously, the paging would stop if all of the unused lanes were not turned off.
- Added the ability to show '0.00' for the running time on single line scoreboards upon reset of the timer when the Finish Page Time is set to a value of zero (0). Before, the scoreboard would show the first place runner until the start of the next race.

Version 9.10.13 Release Date: 13 October 2009

General

• Corrected problem with sending data on the scoreboard outputs using the Multiline and Omega protocols.

Swimming

- Corrected problem with transferring a maximum length event order between the timer and Pro application.
- Corrected problem with the Version Message not always being sent to the Pro application.

Version 11.7.20 Release Date: 20 July 2011

Diving

• Added support of 11 judge consoles for Synchronized Diving.

Version 12.2.8 Release Date: 8 February 2012

General

- Changed the default protocol to Multidrop for the Scoreboard Outputs.
- Changed the maximum Broadcast Group from 2 to 8 for the radio functions to support Gen V and VI.
- Adjusted timing parameters for control of LCD.

Version 12.3.20 Release Date: 20 March 2012

Swimming

- Reduced the ARM TIME for Relay Take-off Platform (RTOP) to a maximum 1.5 seconds.
- Made adjustment to the ARM TIME window for the RTOP.

Version 12.12.20 Release Date: 20 December 2012

General

- Added test routines for beeper volume, network jack, audio jack, and smart start.
- Added setting default IP address and subnet mask in test routines.
- Added an additional printer dot advance in print line routine, to fix a problem with newer version(5.75) printers because they would not print a line after receiving 21 characters.

Swimming, Diving, Pace Clock, Synchronized Swimming, Water Polo, Track

- Added menu setting for the beeper volume.
- Added menu for setting network IP address.
- Added menu for setting network subnet mask.
- Added menu for setting network gateway address.
- Added menu for setting network socket number.
- Added menu for viewing network MAC address.
- Added data output on network for RTD.

Version 13.3.26 Release Date: 26 March 2013

General

• Made additions to make sure that old boards did not have Ethernet enable flag set, which would cause them to lock up when requesting a start list.

Version 13.7.18 Release Date: 18 July 2013

General

- Changed the printer intensity levels to lower values for each setting.
- Added "NTWK" error message on the 3rd LCD if network enabled and no network detected.

Swimming, Diving

- Added communication with Pro Swim over the network.
- Added communication with MEET MANAGER over the network.
- Added selection of Omni ID at start up, with selection of Omni1 to Omni4.
- Added selection of standard and custom IP address settings, with standard set to 192.168.0.55 for Omni1, 192.168.0.56 for Omni2, 192.168.0.57 for Omni3, and 192.168.0.58 for Omni4.
- Added selection of standard and custom RTD Port # settings, with the standard set to 3002 for Galaxy and for DVX/N it is 21000 for Omni1, 21001 for Omni2, 21002 for Omni3, 21003 for Omni4.
- Added update of lane status sent to Pro when # of Lanes or Lane order is changed.
- Changed how backup times are calculated, removed the rounding that was in the calculation.
- Added the display of the Omni name selected on the 3rd LCD.
- Changed to set the Event and Heat to the first event after a download of the Event order.
- Fixed so the start list is requested after the event download.
- Added send of updated lane status after reverse lane order and near/far touchpad setup from Pro.

Version 13.10.25 Release Date: 25 October 2013

General

- Moved the serial port buffer for Serial 1 used for CTS output to far memory to make room for the needed buffers for TNMC output.
- GetVenusRequest was updated to allow larger size packets to be received and not cause console to lock up.

Swimming, Diving

- Added communication with Pro Dive over the network jack.
- Added setting the judge to Init state when a judge is added to the CAN network so that the judge consoles will not show up-arrows when first started up.

Track

- Added TNMC captions on address 221 for Home/Guest, and electronic captions on address 227.
- Added selection for TNMC length of 32 col or 48 col for Home and Guest captions.

Version 14.2.18 Release Date: 18 February 2014

General

• Made the Ethernet enable selection so that it can be set for each sport. This allows for each sport to be set independently of each other for cases where some do not use Ethernet communications.

Version 14.4.15 Release Date: 15 April 2014

General

• Corrected a problem with the Ethernet enable settings that were added for each sport in the 14.2.18 release. The older hardware was locking up with version 14.2.18 and it was changed so that it now checks for older hardware before enabling Ethernet communications.

Version 16.2.23 Release Date: 23 February 2016

Swimming

- Changed the start time reaction window from 2 seconds to 1 second.
- Changed the timing input selection from 1 button, or 3 button to be just Button input. Changed the timer to allow for 1 or 2 or 3 button inputs.
- Made changes to correct for a possible blanking of a lane split or final time, which could happen when the hold time is about the same as the lap time.

Version 19.04.10 Release Date: 4 April 2019

Water Polo

• Added a second shot clock reset time and button to water polo.

Version 19.05.06 Release Date: 6 May 2019

Swimming

• Added a reset of the gui_timer when split time requests are being received so the Omni will not time out when 66 length races are having split times returned to the Pro.

Rodeo

Version 4.10.17 Release date: 17 October 2004

• Initial software release

Version 5.6.08 Release date: 8 June 2005

- In die C3 of 80C390, the SMOD_1 bit for Serial Port 1 seems to be ignored and the baud rate is always doubled (WDCON.7=1) so the reload values of Timer 1 were adjusted to work with this as doubled.
- Added an H-segment on digit two of the clock in address 1 for a caption control.
- Removed the selection in the menu for start of timer using judge number 1.

Version 5.9.26 Release date: 26 September 2005

• Added the ability to take a time input from the FarmTek timer for barrel racing to show on our displays.

Version 5.12.02 Release date: 2 December 2005

- Added a Cutting mode that uses 1, 2, 3 or 5 judge's consoles to score the event.
- Added a Bubble Time/Score key function to the console and in RTD.
- Added a Cattle number key function to the console and in RTD.
- Added a previous Time/Score section in the RTD.
- Added a Clear Previous key function to the console.
- Added an Enable/Disable Photocell key to the console.
- Added the ability to receive a time input from the FarmTek timer in Timed Events and Cutting Events.
- Added the ability to Start, Stop and Reset from all judge consoles in Scored Events.
- Added to the printout for a scored event, which judge console started and stopped the timer.
- Added the entry of an extra judge console to be used as a Start, Stop console.
- Added a Menu selection to select if any judge's console can Start/Stop the timer.
- Added a warning time in cutting and penning that sounds a .5 second horn when the warning time is reached.
- Changed the Reset Judges key to get the judges consoles to exit scoring if no score was entered.

Version 6.2.16 Release date: 16 February 2006

- Fixed a problem when configured for 1 judge, the score always came back with the status set to reride on.
- Fixed a problem that the Cutting horn time is using the scored event horn time.
- Fixed a problem of the Warning horn is not sounding when clock is counting down.

Version 6.9.21 Release date: 21 September 2006

- Fixed a problem with entering the # of judges in cutting mode, as it would not let all of the allowed judges be entered.
- Fixed a problem when timing with Farmtek in external timing, if the timer was turned off or disconnected, the OmniSport timer would not allow the user to switch to a different timing mode.

Version 7.4.16 Release date: 16 April 2007

- Added 2 Rider/2 Stock scoring mode for use with 4 judges only.
- Fixed a problem in Separate scoring mode that the judge status would not show on the console LCD until a judge score was entered.

Version 7.7.5 Release date: 5 July 2007

• Added ability for single judge to generate a reride for the 2Rider/2Stock mode.

Version 7.12.26 Release date: 26 December 2007

- Fixed a problem with Scored Events with the clock in count down and set for horn after stop. If the time was stopped before it reached zero the time would get set to zero when the clock hit zero and blew the horn.
- Fixed a problem with half-point scoring set on the leader score would not display all digits. If the score was entered as 89 it would show 8 on the display.

Version 9.2.16 Release date: 16 September 2009

- Modified scoreboard output in cutting so the score will shift right if over 100 so x100 digit is displayed.
- Changed the printer output routines (as done in Omni2000 swim) for the new version of printer.

Version 13.1.25 Release date: 25 January 2013

- Added menu items for network settings.
- Added RTD output on the Ethernet jack.