SSC6100 Gen 3 Features Comparison

Feature			Firmware Version									
		0.83	0.84	0.85	0.86	0.87	0.88	0.89	0.90	0.91	0.92	
•	Added support for the PreCise [®] MRM Temperature Sensor.										Х	
•	Added the ability to set and use interval triggers for time and distance when using event logging and the XZalt system.									Х	Х	
•	Dynamic header bar messages specified in the HW Config file								Х	Х	Х	
•	Added the spreader operational error log to the diagnostic log export Changed the operation of the iGrip position detection.							Х	Х	X	Х	
•	Fixed an issue with the directional spinner systems. Fixed an issue with system response when used with Spartan Controllers						Х	X	Х	X	Х	
•	Resolved the incorrect operation of skip sanding mode when non- default distance values are used. Feedback errors no longer occur when the vehicle is not moving. Pressure sensor error is no longer logged when exiting hibernation. Default type of the speedometer is now electronic.					X	X	X	X	x	X	
	Added new directional spinner (Manual) type. Added ability to use directional spinner without the Isobus Valve Module. Additional improvements to the Estop testing on power up.				X	X	X	Х	X	Х	Х	
•	Improved iButton supervisor key detection Increased auger and granular material calibration limits			Х	Х	Х	Х	Х	Х	Х	Х	
•	Resolved the random need to perform an ESTOP when operating a Tow Plow system containing an iGrip.		Х	Х	Х	Х	Х	Х	Х	Х	Х	
•	Resolved incorrect temperature sensor communication errors in the error log Resolved a random fatal error upon entering hibernation or shutting down.	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	



6100 Change Log for Stable Releases

6100 Spreader Control Software (0.92.10004), Release 2017-06-08

Added Features:

- Added support for reading the PreCise MRM Temperature sensor and displaying the road, air, relative humidy and dew point readings in the dataitems.
- Added the reporting of the relative humidity in the standard and XZalt event strings.

6100 Spreader Control Software (0.91.9990), Release 2017-03-13

Added Features:

• Added the ability to set and use interval triggers for time and distance with the event logging system when the system is applying material use the mixed material (XZalt) operation mode.

6100 Spreader Control Software (0.90.9972), Release 2016-06-22

Added Features:

• Added the ability to associate an input state with a header bar message that has the text and color of the message defined in the hardware configuration file. These messages can also be associated via calibration with the various alarm levels allowed by the unit.

6100 Spreader Control Software (0.89.9958), Release 2016-04-15

Other Items:

- Added the standard error log which is viewable to the user to be included in the diagnostic error log package that is exported in the calibration menu to assist in troubleshooting.
- Changed the operation of the iGrip enable detection when starting from the center position.

6100 Spreader Control Software (0.88.9941), Release 2016-02-17

Resolved Issues:

- Fixed the issue with the directional spinner systems when used in manual mode.
- Fixed an issue where some systems that contained a Spartan control would begin to exhibit slow response when providing input using the operator interface.

Other Items:

• Improved the indicator that is used in the calibration screens for min/max and material displacement and the unload operation screen to indicate that the vehicle is moving which prevents the system from being activated.

6100 Spreader Control Software (0.87.9852), Release 2014-12-08

Resolved Issues:

- Fixed the incorrect operation of skip sanding mode when non-default distance values are used.
- Feedback errors no longer occur when the vehicle is not moving.
- Prevents the pressure sensor error from being logged when the system exits hibernation.

Other Items:

• Changed the default type of the speedometer to electronic.

6100 Spreader Control Software (0.86.9764), Release 2014-06-30

Added Features:

- Added a new option for using the directional spinner systems. When spinner type is set to Directional (Manual) the placement and rotation are manually controlled.
- Added the ability to run a manual directional spinner without the need for the Isobus valve module.

Resolved Issues:

• Improved the ESTOP miswired tests on startup to eliminate false warnings, which would require a restart of the system.

Other Items:

• Reduced the effect of rapidly changing dash key input.

6100 Spreader Control Software (0.85.9631), Release 2014-05-05

Added Features:

- Increased auger maximum pulses per revolution to 25600.
- Increased granular material displacement per revolution maximum to 200 (lbs or kg).

Resolved Issues:

- Stopped tow plow feedback errors from occurring when system is not equipped with a tow plow.
- Fixed iButton supervisor key authentication.
- Fixed issue when calibrating prewet adjustable exhaust where the auger would run at the auxiliary power percent if auxiliary power was enabled.
- Improved the reliability of the ESTOP miswired and power missing tests.

Other Items:

• Reduced the effect of rapidly changing dash key input.

6100 Spreader Control Software (0.84), Released 2014-04-09

Issues Resolved:

• Corrected an issue where the system would lose communication with an 8 Port valve module and require an ESTOP test to be performed on systems that contained an iGrip control and operating with the Tow Plow system enabled.

6100 Spreader Control Software (0.83), Released 2014-03-28

Issues Resolved:

- Corrected an issue where false temperature sensor communication errors were being logged in the error log when the system exited hibernation mode.
- Corrected an issue where a random fatal error would occur upon entering hibernation, shutting down or restarting.

6100 Spreader Control Software (0.82), Released 2014-03-24

New Features:

• Added support for the 10 Port Valve module

Issues Resolved:

• Resolved large log files from consuming disk space by rotating the large log files on entry into hibernation or shutting down.



FAB0017 - 6100 Features Comparison and Change Log

- Changes made to the ELA Module authentication which was causing the AVL Event Logging communication to randomly fail and stop logging events.
- Changes made to the ESTOP test performed at power-up to resolve issues where the test did not complete.
- Added diagnostic items for use with the directional spinner operation for spinner placement and lane compensation.

6100 Spreader Control Software (0.81), Released 2014-01-17

Issues Resolved:

- Decreased the delay in output reaction.
- Resolved the fatal error that was triggered when entering cross auger min/max.

6100 Spreader Control Software (0.80), Released 2014-01-07

New Features:

• Increased the lower range for the ground speed pulses to support more trucks. Pulses now go down to 4000 pulses/MI or 2450 pulses /KM.

Issues Resolved:

- Additional changes made to reduce the beeping and red LED being displayed on the LCD.
- Changed the processing of the iGrip function selection and interlock determination to improve performance.

6100 Spreader Control Software (0.78), Released 2013-12-16

New Features:

- Added a forced ESTOP check when exiting hibernation.
- Added an option to recovery mode to restore current/season data totals database.

Issues Resolved:

- Fixed an issue where communication errors were falsely logged in the error log.
- Fixed an issue where event logging would fail to re-authenticate.
- Fixed an issue where pressing the nav stick to shut down immediately was delayed.
- Changes made to reduce the being of the 6100 LCD display
- Fixed an issue with data logging totals being incorrect due to hibernation mode.
- Fixed an issue where indication of selected joystick in normalization was incorrect.

6100 Spreader Control Software (0.77), Released 2013-11-25

New Features:

- Added the ability to adjust the interval time interval trigger for AVL mode down to 1 second.
- Added the High Liquid selection and operation for the Xzalt mixed material mode.

Issues Resolved:

• Fixed an issue where the warnings could be reported and logged during the shutdown sequence when they could be in an erroneous state.

6100 Spreader Control Software (0.76), Released 2013-11-15

New Features:

• Added the ability to adjust the interval triggers when in AVL mode.

Issues Resolved:

- Fixed an issue where warnings conditions could clear the text but leave the buzzer still active.
- Fixed an issue where an alarm warning could remain active during the shutdown process.

6100 Spreader Control Software (0.75), Released 2013-11-05

New Features:

- Added a recovery mode that will detect major failures and allow the system to have limited functionality to resolve the system issue.
- Added new options to the Recovery Tree window allowing calibration settings to be restored from a backup or default and upgrading the firmware.
- Added support for defining a parent function for the cross auger operation and spinner operation. This is configured in XML and will support more truck configurations.
- Added two-position gate operation with error logging.

Issues Resolved:

- Resolved the issue with the interaction between the system and older MPJC/SPJC boards (Version 2.4 and older) causing a fatal error.
- Fixed issues where the system stopped communication with the PreCise MRM unit after hibernation.

6100 Spreader Control Software (0.74), Released 2013-10-07

New Features:

- Changed action on a prewet or direct feedback error to shut down the associated system instead of going in to open loop mode.
- Added direct low liquid action options including warn, warn and disable.
- Added the error log with onscreen viewing and export capabilities. Can save infinite errors logged with real date and time.

6100 Spreader Control Software (0.73), Released 2013-09-05

New Features:

- Added support for the USB supervisor key.
- Added a one second delay when switching directions for spreader related functions.
- The state of sim speed enable is now retained during a power cycle or when the sim speed is shut off due to the vehicle moving.
- Added direct low liquid warning functionality.
- Added support for the Adjustable Power Float operation.

Issues Resolved:

- Resolved the issue where the direct application output would not run when granular was disabled when simultaneous application was still enabled.
- Resolved an issue where the ESTOP condition was being reported during a CANbus Fault error condition on startup.
- Resolved an issue where the prewet low liquid error condition did not occur if the input was active at system startup.

6100 Spreader Control Software (0.71), Released 2013-05-23

New Features:

• Added the ability to read the Vaisala temperature sensor.



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- Added the option to control the tow plow spinner spread width independently from the truck spinner.
- Added a new error to indicate a CAN Bus Fault.

Issues Resolved:

- Improved the ESTOP miswired and power missing errors to be easier to identify and understand.
- Resolved an issue with the XZalt system granular and prewet material auto cal turns measurement.

6100 Spreader Control Software (0.70), Released 2013-02-07

New Features:

- Added the low granular material warning with and without the disabling of the data logging and adjustable alarm levels.
- Changed the hardware configuration file importing to use new file number ranges. Added the hardware config file revision information to the version menu.

Issues Resolved:

- Fixed an issue where the current and season data totals were not clearing if the driver ID was enabled.
- Fixed an issue where some systems were unable to generate current or season data reports.

6100 Spreader Control Software (0.69), Released 2013-01-29

New Features:

• Creation and exporting of an additional file containing the calibration settings in a text format during standard calibration data exporting.

Issues Resolved:

- Fixed a issue that was allowing the CAN devices to be assigned the same serial number when using LSS. These fixes are in addition to those made in 0.65.
- Increased the spinner position feedback timeout from 0.5 seconds to 2 seconds.

6100 Spreader Control Software (0.68), Released 2013-01-22

New Features:

- Added adjustable overspeed alarm warning. The adjustable parameters include the speed and when (never, spreading, and always) that the alarm will occur.
- Ability to require Driver ID key for spreader operation.
- Writing of Driver ID keys.
- Added adjustable time for AutoRecall.

Issues Resolved:

- Removed buzzer notification from XZalt communication error.
- Fixed an issue where the FSH ISOBUS module would cause a FATAL ERROR when used as an implement.
- Fixed an issue where the cross auger would not run when when the system was in standby and blast was activated.
- Fixed an issue where the adjustable joystick interlock time was not always available in Calibration.

6100 Spreader Control Software (0.66), Released 2012-12-11

New Features:

• Added Event Logging for XZalt vehicles.

Issues Resolved:

• Fixed an issue that prevented the correct serial number to be displayed in the Version menu for the Mixed Material module.

6100 Spreader Control Software (0.65), Released 2012-11-27

Issues Resolved:

- An issue where the transmitter board buzzer was out of sync with the UI for DLA module communication errors.
- An issue where serial numbers could be swapped when using LSS.
- The 6100 will now only use LSS when it is required to (if there are 2+ SPJCs, MPJCs, 20 ports, or DLA modules in the system). This allows a new SPJC, MPJC, or 20 port to be used on older systems as long as LSS is not necessary.
- Fixed bug introduced in 0.64 that was preventing joysticks from being normalized.

6100 Spreader Control Software (0.64), Released 2012-11-08

New Features:

- Added the detection of missing ESTOP voltage during normal operation
- Changed the visibility of the Implements soft switch to only appear if the Hardware Config file indicates the system is using implements.

Issues Resolved:

• Fixed an issue that allowed the joystick buzzer to indicate a communication error when an 8 Port Valve module associated with a non attached implement was not connected to the system.

6100 Spreader Control Software (0.63), Released 2012-09-28

New Features:

• Added the implement option which allows for the attachement and detachment of external modules without a communication error if intentionally removed.

Issues Resolved:

• Fixed the sporadic detection of a miswired ESTOP power to the direct module.

6100 Spreader Control Software (0.62), Released 2012-06-01

Issues Resolved:

• Fixed the issue where the data total report generation failed.

6100 Spreader Control Software (0.61), Released 2012-05-14

New Features:

• Granular and Prewet Tow Plow Operation.

Issues Resolved:

• Fixed the issue where the prewet unload time was not being recorded in the current and season data totals.



6100 Spreader Control Software (0.58), Released 2012-03-22

New Features:

• Import of Joystick Min and Max Calibration settings.

Issues Resolved:

- Fixed the issue where the Restore Defaults option does not reset Joystick Min and Max values.
- Fixed the issue where Mixed Material Module spinner was not running when Granular was running.

6100 Spreader Control Software (0.57), Released 2012-02-27

New Features:

- Automatic Calibration (AutoCal) by Distance is now supported.
- Distance Measure is now supported.
- Directional Spinner 5 Second Run On is now supported.

Issues Resolved:

- Fixed the issue where the SSC6100 did not go into standby when Granular and Direct are turned off when not in standby.
- Fixed the issue where Blast with Direct and Granular inactive caused a failure.
- Fixed an issue where the valve frequency was not properly being set in the 20 port valve module.

6100 Spreader Control Software (0.54), Released 2011-12-13

Issues Resolved:

- Fixed a potentially critical issue where the 6100's onboard storage could become full. Upgrading to 0.54 will automatically free up space within the onboard storage.
- Fixed an issue where Adjustable Joystick Interlocks were not being restored to defaults, imported, or exported.

6100 Spreader Control Software (0.53), Released 2011-11-04

New Features:

- Auxiliary Power mode is now supported.
- MPJC joysticks with Interlock pushbuttons now have adjustable interlock times. These can be set per-joystick in Calibration.

6100 Spreader Control Software (0.52), Released 2011-09-26

New Features:

- Skip Mode is now supported.
- Joystick errors will now appear in the header bar as well as send a beep code and blink the LEDs.
- The default pulses per revolution for the auger/conveyor has been increased from 20 to 512, to correspond with our standard feedback sensor.

Issues Resolved:

• Resolved an issue where device communication errors could show on top of the ESTOP screen when the ESTOP switch was activated.

6100 Spreader Control Software (0.51), Released 2011-09-01

New Features:

- Directional Spinner is now supported.
- ISOBUS Valve Modules (P/N 94211A00*) are now supported, for initial use with directional spinner.
- Adjustable Gate mode is now supported. Drivers may select a gate height in the Material Selection menu.
- Speedometer sensitivity can now be set to custom, where speedometer voltage trip points can be set manually.
- Joysticks can now be operated when the spreader power switch is off.
- Errors will now appear when the spreader power switch is off.
- If upgraded to the latest 94066A001/94067A001 Joystick Transmitter Board firmware (v2.3), the transmitter board will no longer beep during 6100 startup.

6100 Spreader Control Software (0.49), Released 2011-07-11

New Features:

- Spartan SPJC handles are now supported.
- Joysticks (both MPJC Ultra and Spartan SPJC) can now be normalized in the Joysticks menu of Calibration.
- Outputs can now be activated whenever the Direct output is active (as configured in the Hardware Configuration File).
- Hardware Configuration files are no longer imported through the "Upgrade Firmware" menu item. Instead, use the new "Import HW Config File" menu.
- Added a dump body to the Granular Operation Screen when Granular is enabled and Prewet is disabled.
- Added a vbox body to the Granular Operation Screen when Granular and Prewet are enabled.

6100 Spreader Control Software (0.43), Released 2011-04-29

Issues Resolved:

• Resolved an issue in 0.42 where joystick LEDs blink as though the output is active, however the output is never activated.

6100 Spreader Control Software (0.42), Released 2011-04-26

New Features:

- Audible Warnings for Body Up, Oil Level, Oil Temperature, Filter Bypass Low, and Filter Bypass High.
- Direct Liquid Application lanes can be operated when using AutoCal.
- AVL Event Logging will now run on Gen 2 core modules without an ELA-MODULE.
- Core Inputs added to Hardware Configuration File.
- Core Outputs added to Hardware Configuration File.

Issues Resolved:

• Resolved a rare issue where certain Hardware Configuration Files were not activating outputs.



Known Issues:

• An issue exists where joystick LEDs blink as though the output is active, however the output is never activated. This can be resolved by upgrading your firmware to 0.43.6196.

6100 Spreader Control Software (0.41), Released 2011-04-11

New Features:

- Dual Purpose Input Output (SPD Mode)
- Joystick Enable/Disable Switch
- Joystick Alternate Function Switch
- Run a Low Current Function Switch

Issues Resolved:

• Resolved an issue where SimSpeed would cause closed-loop outputs to jitter until the 6100 was restarted.

6100 Spreader Control Software (0.37), Released 2011-02-16

Issues Resolved:

• An issue where Spread Rate Index, Spinner Dial Setting, and Direct Lane event logging fields did not duplicate 5100 behavior was resolved.

6100 Spreader Control Software (0.34), Released 2011-01-17

Issues Resolved:

 An issue where Granular/Prewet/Direct Set Rate event logging fields did not duplicate 5100 behavior was resolved.

6100 Spreader Control Software (0.33), Released 2010-12-16

Issues Resolved:

• Several issues where 6100 event logging did not duplicate 5100 behavior were resolved.

6100 Spreader Control Software (0.32), Released 2010-12-13

New Features:

• PreCise MRM event logging support

Issues Resolved:

- An issue where data totals did not clear properly was resolved.
- An issue where simultaneous data totals were not recording properly was resolved.
- Several performance issues were resolved.

6100 Spreader Control Software (0.24), Released 2010-08-27

New Features:

- Direct Liquid Application
- Simultaneous Granular / Direct Application
- AVL Event Logging
- Emergency Stop can now detect if it is miswired.

6100 Spreader Control Software (0.19), Released 2009-02-04

New Features:

- Cross Auger
- Date/Time display on the Header Bar
- MPJC Joystick Control support