

## Isagraf Exec – S1915

<u>Revision</u>	<u>Change</u>	<u>Customer Release Note</u>
1.10	CN1132	Version to run on both S250 and S500 platforms plus several minor enhancements/fixes.
1.08, 09	-----	<b>NOTE: Rev 1.08 and 1.09 were never released to production.</b>
1.07	CN1123	<p>Add support for GPS module attached via PMMI port. Preferred GPS module is the Garmin GPS35, which can provide the required 1PPS synchronization output.</p> <p>RTU will sync to GPS time providing MNEA GPRMC message is valid and not disabled via EXTLOCK function. RTU time is updated on GPS second 58. GPS_POS function block added to obtain position data. This will be valid so long as the GPS module is providing valid GPRMC messages. It will be deemed invalid after 5 seconds of invalid/missing data.</p> <p>ExtClock function added to disable/enable external clock use and also determine if it is currently valid.</p> <p>New Events added that occur when external clock becomes valid/invalid.</p> <p>Improve anin channel accuracy near 0.</p> <p>Calibrate RTC milliseconds. The RTU clock crystal provides a 977us tick. This tick is now calibrated to generate the RTU milliseconds. This action has an effect on event I/O timestamping. The Event Input boards are sampled every 977us, however the event timestamp reads the now calibrated RTC. Therefore it is possible to obtain 2 events with the same timestamp, the reality being that they occurred in the same millisecond, 977us apart.</p> <p>Improve battery present test.</p> <p>Ensure RTU cannot go to sleep until any pending alarm updates have been transferred to the RTC.</p>
1.06	CN1102	<p>Don't send '&lt;crc&gt;' after msynch command if DLE/STX (TSP) mode is configured.</p> <p>Scope does not expect the &gt;t turnaround after synch in TSP mode.</p>
1.05	CN1097	<p>Allow all apps to be loaded from flash correctly at startup if RAM corrupt.</p> <p>Prevent WDOG IN failure if bit not used in WDOG/AUX failure masks. This prevents the watchdog LED flashing a failure when the WDOG IN is not in use.</p> <p>The RTU exec can be updated via a special application that contains a resource named FLASH_EXEC. This must load a valid binary file image of the new exec. Once downloaded, if valid, the exec will be automatically programmed into the flash exec area. A message will be displayed on the debug window (providing ISATXT.ERR has been updated in the workbench EXE directory) indicating success or failure. Reboot the RTU to invoke the new exec.</p> <p>Increase maximum application size to 200K. Note that only 192K of flash is available for an application, therefore if this is to be used then the application must not exceed this limit. To check the size of your app see the appli.x6m file in your project directory.</p>
1.04	CN1094	Allow access to all archive memory (.64kb) via seprol slave comms handler.
1.03	CN1092	<p>Allow large applications to be flashed.</p> <p>Verify 'size' parameter (=16) for ARC_SEND modes 4&amp;5 (master/slave synch commands)</p>
1.02	CN1089	<p>Prevent false IO ID codes from empty slots.</p> <p>Ensure Anin/Mux Anin board power cycled correctly when switched by user to prevent input freeze at max input.</p> <p>Prevent system resets with large user applications.</p> <p>Allow configuration of TSP protocol DLE STX message header. By setting bit0 of the application protocol options configuration byte for Seprol Extended protocol, all messages will be preceded by DLE STX characters. Also, no received messages will be accepted unless they are preceded by DLE STX. This will make the protocol compatible with S500 TSP.</p> <p>Allow configuration of Encoded CRC protocol.</p> <p>By setting bit 1 of the application options bit for Seprol Extended protocol, all responses to slave read commands will have the CRC modified by adding the received read command CRC. This allows the sender to identify which command the response is for.</p> <p>Add Seprol Alarm Protocol (TSP).</p> <p>Modify ARC_SEND to enable transmission of archive data using TSP alarm protocol. This is achieved using the ARC_SEND function block with a MODE parameter of 6. The DESTINATION parameter will be sent as the alarm protocol header word. Up to 256 16 bit</p>

words can be sent with the alarm message.

- 1.01 CN1088 Allow 256K Archive Memory on Mk III.  
Allow the position of the Event Log in Archive Memory to be configurable via.
- 1.00 ----- First Release.