



Release Notes

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Prepared by: Dr. Scott R. Runnels
Scott Runnels Consulting
www.srconsult.com

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Installation

Existing users can install this patch by downloading the exe patch files from www.srconsult.com/SinbadDownload.htm and copying them directly over the exe files in their existing Sinbad installation directory. Both the Fortran and GUI patch files are required.

Bug Fixes and Testing

Bug	Fix	Test
There were still length units errors on the Edit Atmosphere form in the altitude columns associated with ambient pressure, blackball temperature, and ambient temperature and also the Y axis on the temperature vs. altitude plot.	Changed the Caption value for the three lengths in the EditAtmosphere form. Also changed the Chart2D1 Axes ("Y") value to use "m" instead of "ft".	Ran the GUI and looked to verify units were correct. Also searched entire code for "ft" string and verified that it does not appear anywhere as units.
In the IO module, in WriteCompFile, sol = SolarDB(i) needed the word "set" in front of it.	Inserted "set" as required.	None.
The useward variable in the GUI is not used in the computational module. Instead, the computational module uses drate > 0 as the signal to use the Ward autobalasting algorithm. A check was needed in the GUI to warn the user: Even if Ward is selected, if drate <= 0 , it will not be operational.	Added a warning message box to the end of EditAutoBallaster's TextAndData routine. Likewise, set the drate = 0 if useward = 0 .	Ran the GUI and chose the options that would make the message box appear.
<i>Continued on next page.</i>		

Bug	Fix	Test
<i>Computational Module Bug:</i> In the Ward autoballasting algorithm, it would ballast while the balloon is being launched.	Put in a check for negative velocity. The balloon has to be <i>descending</i> in order for the ballaster to function.	Ran cases and examined the computational module's "output" file.
There was a typo in the ALFSO calculation. It needed "+" before the number of film layers.	Changed "*" to "+" in the equation.	Checked ALFSO , TWSOL , EW , and TAUW against spreadsheet. They all were correct (once the bugs in the spreadsheet were also corrected).
The time of launch (TIMOL) calculation was incorrect. It was not using the "Hours from GMT" entry.	In the EditLaunch form, re-enabled the HoursFromGM text box. In the Launch class' ComputedValues function, subtracted HoursFromGM 's value, converted to seconds, from LaunchDate 's values (hours, minutes, seconds).	Printed intermediate values and compared to spreadsheet for an am and pm time. Also checked the computational "input" file.
DAYNO calculation was not correct. It was ignoring the month and only using the day of the month.	In the Analysis ' class' ComputedValues routine, the DAYNO variable computation was modified to compute the day of the year correctly. The "Last Day of THIS YEAR" entry was removed, which required modification of the EditLaunch class' TextAndData capture/display routine.	Intermediate debugging printouts for extreme and middle values were compared to hand calculations.
The EditAutoBallaster TextAndData function did not capture the selection of scheduled ballasting. So when the user selected "None/Scheduled," there was still no schedule printed to the computational input file "input".	Added coding in the EditAutoBallaster form's TextAndData routine that properly assigns the AutoBallaster class' BallastSchedule variable.	Ran it in a simulation, looking at the computational file "input", and saved then re-read from database.