## **Change Log for ASPIC Suite**

Table 1: Changes by version number and date.

	Date	
version	(mm/dd/yy)	Changes
5.00	10/01/03	First public release including generalized (Pella-Tomlinson) and Formodels. No expiration. Better reporting of errors in .inp file. Expanded .prn output file to all data series.
5.01	02/10/04	An error message is now printed if error code ierr=20.
5.02	02/12/04	Changed filename variables to 128 chars for better compatibility with drag-and-drop versions, which are passed complete pathnames.
5.03	03/29/04	Fixed rare problem in initsimp routine with no starting values of $K$ MSY, or $q$ . Also, increased number of convergences reqd with LAV optimization to 8.
5.04	04/14/04	Fixed some inconsistencies & errors in handling missing values Checked all possible combinations of data-series type, missing values and zeroes.
5.05	04/18/04	Added LRP and CV(LRP) for REPAST to bootstrap output.
5.06	06/02/04	Further increased file name variables to 192 characters.
5.07	06/02/04	Fixed bug in output to .prn output file.
5.08	01/20/05	Further file name length increases for better operation of drag and drop interfaces.
5.09	04/18/05	Revised operation in Monte Carlo mode 2. Previously, in initial fit of a bootstrap run (BOT mode), MC trials were fewer than for same data in in FIT mode.
5.10	05/12/05	Eliminated AIC and <i>F</i> -test for Fox model, as invalid. Print revised bounds during generalized fit. Restore user bounds before bootstrap.
5.11	05/13/05	No change to ASPIC, but updated ASPICP. Also revised manual to explain changes (options on BC or PC intervals, and whether to smooth them or not).
5.12	06/??/05	Added code to write R-compatible output into structured .rdat file readable with R's dget() function. (Code uses For2R.)
5.13	09/12/05	Fixed bug in which biomass-index series were handled wrong and estimation failed completely.
5.14	01/14/06	Added annual weightings by prefixing WTD to SSETYPE on line 3 of .in file. Will be accessible from NFT GUI only after further testing.
5.15	06/14/06	Improved R-compartible output by adding a routine to translate "\" in the output object's representation of input file name.
5.16	07/18/06	Changed strtrans in utils.f90 from function to subroutine for std compliance.
5.17	08/08/06	Changed name of open_r_info_list to reflect change in For2R.
5.18	01/08/07	Improved printing of very long input file name in .fit file.
5.19	07/13/07	Added error code 35 for $MSY = K$ in estimates.
5.20	08/09/07	Minor source changes to accommodate Intel compiler. Changed wording of message about negative correlation.

Version	Date	Changes
5.21	09/23/07	Increased max number of years to 250.
5.22	10/03/07	Fixed a format statement and record-length specifier for .bio file to work with longer time series.
5.23	10/10/07	Reduced screen output during MC searches in an IRF mode run.
5.24	11/23/07	Corrected "," instead of "." on line 73 of sample output file. Made very minor changes to aspicloss.f90 to increase accuracy. Fixed bug in ASPICP computation of 50% confidence intervals.
5.30	07/04/08	Moved release version to Intel compiler for better speed and new language features.
5.31	07/14/08	Turned off R file when not in FIT mode.
5.32	01/13/09	Fixed reversion in which .ini file was not read.
5.33	01/15/09	Changed For2R to write pathname with "/", not "\", to make the comment in the .rdat file usable as an R command.
5.34	03/30/09	Allowed specification of user confidence interval in .inp file, and discontinued use of .ini file for any purpose.
5.35	04/01/09	Improve computation of yield at $F_{\rm MSY}$ in the post-terminal year. This is now an exact computation for the Schaefer model.
5.37	07/21/09	Added a check for empty data series, which are not allowed. Minor bug fix.
5.38	12/18/09	Revised .bio file output to work with ASPICP v.4. Better reporting of $MSY = K$ during bootstraps.
5.39	05/08/10	No changes visible to user. Use Fortran 2003 command-line argument routines.
5.40	06/13/10	Fixed bug in setting program guesses for $q$ when user guess is zero.
5.41	11/29/10	Changes in aspicbot.f90 to accommodate WTDSSE mode.
5.42	11/30/10	Fixed bug in computing CIs on $Y$ at $F_{MSY}$ in last year.
5.43	04/16/11	Changed internal representation of filenames to always use full paths. This avoids problems in Windows 7.
5.44	07/09/11	Add $Y_{\rm MSY}$ to R output object.
5.45	08/10/11	Preserve filename case. Move to Absoft compiler.
5.46	09/08/11	Improvements to R-compatible output.
5.47	11/20/11	New Quick Start Guide replaces Quick Reference. More sample files.
5.48	11/30/11	Make R output more complete. Revise nearness and contrast indices.
5.49	12/12/11	Add R-compatible output (.rdatb file) for BOT runs.
5.50	03/16/12	Port to Absoft 11.5 compiler. Better windowed console.
5.51	05/08/13	Check for ASPIC 7.x input file format & stop if found.
5.52	06/26/13	Increase R output file precision.
5.53	06/26/13	Fix for above. Revise For2r to prevent bad formats.
5.54	06/27/13	Fix For2r field width to fit negative numbers.
5.55	06/27/13	Add back text console versions.
5.56	01/23/14	Negative verbosity prevents overwrite prompt.
5.57	08/8/2014	Change install directories for no collision with ASPIC 7.

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Version	Date	Changes
7.00	08/08/14	First release of major new version. Added two estimation methods, MLE and MAP. Revised parameterization. Increased data extents. Reorganized User's Guide.
7.01	10/28/14	Fix bug in R output.
7.02	05/6/15	Add R output file from ASPICP to file table.
7.03	09/17/15	Add conversion program (aspic5to7.exe) to distribution.
7.04	09/02/16	In manual, correct examples of GENGRID specification of $\phi$ . (Thanks to Henrik Sparholt for the error report.)
7.05	04/01/17	Remove beta-version designation from .fit file.

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