

## SuperSMITH Revisions:

(Full previous revision history is available from our website listed in [Product Support](#))

### Major changes from v5.0 to 6.0

With Version 6.0AA (Dec 2021), SS Weibull, Visual, and YBath are integrated. Revisions will be listed here. For prior versions, see the following sections

Also see:

[SS Visual Changes \(Prior to 6.0AA\)](#)

[SS Weibull Changes \(Prior to 6.0AA\)](#)

[SS YBath Changes \(Prior to 6.0AA\)](#)

#### 6.0AX - 31 Dec 2025 (File version 6.0.0.124)

Fixed issues that could cause SSW to show in front of SSV when SSV plot was called.

Fixed Zoom issue when Y scale =  $U \cdot 1000 - \text{Occurrence} / K$  [Reliability]

Reduced Flicker on Menu Resize.

Added checks on DIR() and Close commands to match recent Windows changes.

Added checks on ClipboardClear to reduce "Unable to Open Clipboard" errors

Updated Barringer Process Reliability (BPR) menu.

BPR Change points can now be selected rapidly (Was a delay)

BPR change points on plot now round to 0.2% They can be entered in more detail by selecting "F At Value" option

Added limits during sampling to prevent too many data sets

Updated copy data to clipboard to work faster with large sets

Added links for upcoming graphics improvements (No impact current users)

Fixed issue when resizing menu where header may overwrite menu items

Adjusted Program Full Screen/Midsize defaults to show entire plot at midsize

Added Error log tracker under Setup menu to track internal errors and command line directives. (to be used for Tech Support troubleshooting.)

#### 6.0AW - 06 Nov 2025 (File version 6.0.0.123)

Updates to comply with [Windows Updates 2025-10](#)

- Added checks on files opened with double click

- Added checks on file names opened with drag/drop

- Separate Directory routine for handling DIR errors

- Option V in Former Files lists Command string or drag/drop file

Updated Timegate on top of plot for long calculations

Estimates from Mixtures are now recalculated once

Several menus updated for easier use

Added option V in former files to show names of files that were drag and dropped on program

Rewrite Weibull Library INI file if missing, corrupt, or partial

Common routine for fit and y plotting positions (rr, rrs, mle, etc)  
Turn off hourglass (or Spiny circle) icon if routine exits due to error  
Several icons updated  
Symbols "@" and "r<sup>2</sup>" changed to "(R)" and r<sup>2</sup> for international use  
Updates and icons on Barringer Process Reliability Menu  
Added error logic when reading INI file if line width was set to 0.

HELPPFILE:

- Left Pane: New Order
- Separate Benchmarking section
- Added detail in System File Check
- Search/Find can now be activated with <Enter> key

6.0AV - 28 Apr 2025 (File version 6.0.0.122)

Updated file import routines for old .Y files made with YBath 5.0  
YBath reverts to W2P if data grid entries changed  
Turn off Confidence when mixture selected.  
Update Results menus to show more lines of results  
Menu updates to improve load speed, formatting, and resizing. Now follow main program if moved to another screen.  
Updates for pdf in SSY if data has suspensions  
Batch Processing (MOLE) added Rank Table to file option [tfxxx].

6.0AU - 15 Apr 2025 (File version 6.0.0.121)

File Import will show a preview of the data before you select the format.  
Calculation Improvements for accuracy or timing.  
- e.g. \*1.442 instead of /Log(2)  
Updated Menu Structure and Icon layouts  
- Weibull Dice moved to Sample  
- File Comment (Under Options) content moved to Logbook  
- Lock/Start from various menus moved to Setup Menu  
- Logbook and Additional+ icons moved to "tombstones" above plot  
- Orange highlight adjusted to clear tombstones  
- Menu Format: "= \*YES (/ No)" changed to "= **YES** (/ no)" format  
Selection **ALL CAPS, Bold** Font, No \*, Other options lower case.in ().  
- Menus changed from all **bold** font  
- Menu load routines optimized to be approximately 40% faster  
- On large Icon menu, Up arrow to Home tab was replaced with Setup icon  
- Fixed issue where menu items would be full height after a small menu was used  
- Updated Test menu (L/N/R options) for if Test Type Changes  
HELP FILE: Updated Icon Map. Added section for Icons in HELP program  
Update references from WeibullNews.com to FultonFindings.com  
Fixed issue where drag/drop file sometimes could not be saved with same name  
Fixed issue where multiple files drag/drop to on desktop icon wouldn't load  
Automatic Inspection #1 Updated.

- If data entry has many occurrences, such as "12x50000", Inspection Option #1 is suggested, but user can decline.
- Was Automatic for large quantities of occurrences OR suspensions.

6.0AT - 23 Jan 2025 (File version 6.0.0.120)

Removed errant message code from logbook.  
Return to Normal Window state when menus exit.

6.0AS - 16 Jan 2025 (File Version 6.0.0.119)

Mixture Distribution Analysis Updated to use "Goal" instead of "Limit".

Also added check for at least 3 occurrences in subpopulation.

Library can now store files with just lines (no data sets)

Added MedRankDemo.xlsx to demonstrate Median Ranks to SMITHdat directory

HELP FILE: Updated Icon Map, Added <alt> menu functionality

Added more New Weibull Handbook figures to SMITHdat, now 127 figures.

Also updated WLR\_Smithdat.csv to show current files.

Moved *PlotsNotinHandbook.pdf* from help file to pdf in SMITHdat

Update Special Sample menu for correct text

Update Method menu so top icons can switch from KM to Probit easily

Eliminated blank page on print plot to PDF

Updated SSDice (wire fatigue Monte Carlo) with ability to set seeds

Fixed Button highlight issues when equation Label changed.

Locked out Dauser Shift if data set has suspensions

Updated Visual Reports

Updated Abernethy Risk Planned Replacement menu

Add check for pve if  $r^2=1.00$

Removed several public variables and routines that were no longer used

If current method is Probit, now can generate a Probit Sample with dice icon

Updated Language for "Seed", "Background", and "Transparent"

Updated Marker Line selection and label

Updated several secondary menus so they didn't have to be converted. Slightly faster menus.

6.0AR - 24 August 2024 (File Version 6.0.0.118)

Updated warranty input formats

Icon Mixture labels updated to be consistent between SSW and SSY

Life-Usage Interaction updated for SSV plot

Forty plots from New Weibull Handbook added to SMITHdat directory

Allow Big Titles in SSV for plots called from SSW (such as pdf/cdf plots).

File Open will paste clipboard text if valid file name (Useful for PlayTIME)

Can select FileName in Library to fill prompt on file open (useful for finding/reviewing a file)

Add default B values for Report Table

Updated error handling to reduce cryptic responses

Added Timegage to Mixture calculations

Updated mixture calculations for improved efficiency  
Updated LogNormal and Interval MLE for special test data sets.  
Confidence Menu now shows when Automatic Confidence is turned off  
Added "(Gaussian)" to Normal Equation selections  
Corrected Mixture Time Limit  
HELP File: Updated Crow/AMSAA Barringer Fit  
HELP File: Updated Barringer Process Reliability(Output)

6.0AQ - Skipped

6.0AP - 24 Apr 2024 (File Version 6.0.0.116)

Update initial plot that sometimes had black plot background  
Update Batch commands for -a, -k license key options  
Added header to results when copying to clipboard, logbook, or printing  
Mixtures now default to mle, improved exit criteria and speed  
Update data grid vertical scroll bar when data pasted or deleted; or dragging to select  
On Logbook paste, made Rich Text Format the default (Was plain text)  
Updated mixture estimates. Restricted early Likelihood Ratio Tests.  
Mixture Distribution Analysis. Detail on comparing yb7, yb5, yb4, and SSW/wm.  
- Added underlines for easier comparison of parameters  
- Add note if <40 occurrences  
- Use LR Test % selected on Mixture Icon  
Update header placement on midsize results  
Updated calls to equation selection to one common form  
Updated Calculator Option V  
Add checks when Mixture is active, equation is Weibull  
Add error handling if file path is invalid  
Minor updates in Languages  
Update Report and Dist Analysis if showing pve% and  $r^2$   
HELP: Add Fulton Findings Logo splash at startup while file loads

6.0AO - Skipped

6.0AN - 18 Mar 2024 (File Version 6.0.0.114)

Update Abernethy Risk and Fulton Risk for other time periods (Days, weeks, etc)  
Update Missing Data to allow Interval MLE for Source data  
Missing Data summary now in Report  
Update report formats in SSV  
Added option for pve%/r<sup>2</sup> on plot. Show more digits on r<sup>2</sup> on report  
Update printer setup for portrait/landscape options  
Updates on Nelson Recurrent Events grid updates and precise reading exit  
Auto-hide simple Print/Export OK messages ("Plot on clipboard") after 1 second  
Assurance Add'l Plot Display: Clarified set label  
lr Confidence w/ 3p solution: Gives message to change confidence method

Fit Method: Added logic to ensure recalculation upon change  
Updated simple Results form (Like Binomial Output) with icons  
Added checks for when user turns tablet to portrait orientation.  
HELP: Updated Printer options  
HELP: Add big Highlight under Home Icon  
HELP: Press <enter>while entering search text to start search  
HELP: System Files Check lists API files: advapi32, gdi32, kernel32, shell32, user32  
HELP: System Files check shows Windows 10 or Windows 11 versions of files provided by Microsoft.  
HELP: Updates to text for Missing Data, Weibull Library, and Mixtures.

6.0AM - 11 Jan 2024 (File Version 6.0.0.113)

Updated Mixture menu for consistency between SSW and SSY  
Fixed "Results header overwrites OK button" on some screen resolutions.  
<ctrl> mouse wheel now adjusts font size on grid, library, and most Result screens  
Updated Barringer Process Reliability menus and results screens  
Data Grid height now consistent with plot height for various screen resolutions  
Fixed file dialog box flag which sometimes showed Win 3.1 dialog box  
Fixed SSV plot which was blank for some confidence changes  
Updated data Grid Vertical Scroll bar range  
Update Export/Report menu for Plot, Rank Table options  
Changed Menu preload (6.0AK), which sometimes caused phantom menus and unexpected messages  
    Moved many buttons from "MouseDown" to "MouseUp" to reduce phantom menus  
    Updated Weibull Library menu load  
    Most main menus now have a static menu preloaded to improve menu speed.  
    Restored Method/Input menu to way it was in 6.0AJ  
    Menu preload re-done if language changes  
Update message box to show truncated message, instead of no message if too long.  
Last file opened is now listed in header of Former Files List.  
Binomial Routine: Upgraded to avoid nuisance messages  
Method/Input Menu: Menu item "J" wording sequence clarified  
Data Format: Automatic conversion from Grouped to Inspect Option 1 improved  
Parameter Input: Restored ability for Normal/Gumbel negative central tendency  
Parameter Input: Restored true bottom limit for SigF to 1.0  
Parameter Input: Added message to clarify when input outside acceptable range  
X-Value Input: Restored ability to analyze true negative values for Normal/Gumbel  
Demo Code Message box updated if 5.0 code used

6.0AL - 26 Aug 2023 (File Version 6.0.0.112)

HELP: If search canceled, show "Search: (Click Here)" instead of null line in Tree View  
HELP: Added note on life cycle support  
HELP: Removed contact information for Dr. Abernethy (1930-2021)  
Updated Mixtures in Report and Distribution Analysis

Add Error checking to license processing  
Help File: Updated links on [Missing Data](#)  
Update "No Data" message  
Added /C to Data Wizard Transform to Divide by Constant  
ACH added solution for 4 parameter mixture  
Updated Fisher Matrix menu heading  
Crow-AMSAA report - Fit info on separate line  
Update screen variables for larger than 2560x1440 screen resolution  
- (was not showing zoom/label/print icons on plot)  
Added drag/drop files on grid or plot to open them  
Double-click file now opens with confidence bounds in file  
- (was opening file, but not showing confidence bounds)  
Updates on license management  
- Site License with exe files  
- Check license date and software compile date  
- Can revert to site license file with blank license key

6.0AK - 14 Jul 2023 (File Version 6.0.0.111)

[Abernethy Risk](#): Added Event Probability to option B

"Standard" adds a unit when probability >0.5

"Event Probability" adds a unit when probability > 1

SSHHelp: Updated version check in Help/System File Check

YBath: Improved mixture initial estimates, solution speed, pdf plots, parameters to clipboard

Add capability for timed licenses. [View/Change with Setup Option W](#)

Created Student Version via license key

Improved SSV for startup data set manipulation

Several items added on calculator

Increased # occurrences to 1,000,000 per data set

Add Units option on test menu

Start pre-loading menus with mouse move for faster menu displays

Improved label and icon layout alignment

HDF (Hazard Distribution Function) can now be on log-log scaling

Improved menu navigation for arrow keys, Home/End/PgUp/PgDn

Alt Key menus can now cycle with left/right arrows

Minor updates to Weibull Dice form and message boxes

6.0AJ - 11 Jan 2023 (File Version 6.0.0.110)

SSHHelp: Add version check to Help/System File Check

SSHHelp: Updated menus to match "look and feel" of main program

Add EULA to About dialog box, updated FF Logo

<alt> keys now turn off after 3 seconds of no action

## 6.0AI - Skipped

### 6.0AH - 14 Dec 2022 (File Version 6.0.0.108)

SSHelp: Add 000 separator and decimal separator to System File Check, Update Plots not in handbook

Fixed error with decimal/comma for decimal separator in version number

Improved response for file drag/drop on smithw.exe, or -H (Linger) in batch call

Set colors don't change when new file is opened with existing data

AR (Abernethy Risk) set Wauben Modified if in a batch call

Updated Curve Fit in SSV (cubic, polynomial, etc)

### 6.0AG - 19 Nov 2022 (File Version 6.0.0.107)

BatchOp - Duplicated batch operation code from Sub-FylDin to Sub-FylDinSSW

Dice Icon - Special MC - Menu item "F" made active again for MC type MPV

AR (Abernethy Risk) - Removed leading and trailing spaces for variable sequence input

NRE (Nelson Recurrent Events) - Added box around "Nelson" on plot

Set Delete - Removed requirement to recalc for remaining data sets

BPR (Barringer Process Reliability) - Deleted "Wilkins Modified" option

Menu Update - Allow 1- and 2-line menu items if short list to avoid need to scroll

### 6.0AF - 01 Nov 2022 (File Version 6.0.0.106)

Marker line logic improved to see added line immediately

Batch operation speed improved

### 6.0AE - 20 Sep 2022 (File Version 6.0.0.105)

Commercial Release (6.0AA-6.0AD were beta versions)

Updated Sample Menu - show parameter values, list options.

Updated YBath estimates for faster solutions. Likelihood ratio check updated

SSV report shows corresponding axis info

SSV Optimum Replacement shows Optimum, Planned, and Unplanned

Optimum Replacement Value plot now includes planned and unplanned costs.

Monte Carlo Sample from Sample updated for Interval MLE and print to file

On Screen Keyboard icon added on main input menus

Updated User display options and allow user to save 2 configurations

Weibull Dice updated for languages, and saving data when exiting.

Data paste from clipboard defaults to next set.

Updated Abernethy Risk and Optimum Replacement headers.

Larger menu symbols in Weibull Library.

Updated number menu for data input symbols

Hide Form2 during batch processing.

### 6.0AD - 24 Jun 2022 (File Version 6.0.0.104)

Added click menus on tab labels when small icons showing

Add setup items to switch between Touch and Device (mouse) quickly

Changed default to small icons (not Big Touch screen)  
pAD now indicates "---", not "0.100" when Suspensions  
Reduced menu flicker  
Improved Batch operation

6.0AC - 06 May 2022 (File Version 6.0.0.103)

Added Filipino, Romanian Language  
Added <alt> menu so most actions can be done with keyboard  
See [First Time User](#) for details  
Reduced messagebox size  
Updates to Windows Batch functions  
Updated Print/Export Menu  
Add space on menu so Touch/Drag can highlight choice  
Large Tool-tips when small icon is active  
Updated Rank Table output for better alignment  
Help program updated for start-up

6.0AB - 11 Apr 2022 (File Version 6.0.0.102)

Added White on Blue Menu highlights with mouse movement  
<Enter> on main form will do Monte Carlo, even if Monte Carlo is not on the visible tab  
Options on Setup, Main Display Options  
- Big/Small icons  
- Select tab with mouseover  
- Data grid edit Keyboard/Menu  
- Windows OSK (On Screen Keyboard) for text editing  
- Menu bar size Normal or 1 line  
- Options on Big Plot (Was on Setup menu)  
- Show Y value on Data grid (Was on Setup menu)  
Reviewed Font names/sizes, Aligned font on main tabs.  
Results window can be resized  
Updated yellow highlight feature  
Changed default start to full screen. (Change in Setup, Start/Lock)  
Common File Open/Close Routine  
Updated Monte Carlo Parameter selection for mixtures  
Improved Likelihood Contours

6.0AA - 31 Dec 2021 (File Version 6.0.0.101)

This is a major upgrade which includes:

**Overall Program:**

Improved touch-screen usage with common large icon interface and large scroll bars

- Menu scrolling with mouse wheel, touch/drag, or arrow keys

Number input includes [on-screen number pad](#)

Integration of SSW/SSV/SSY/SmithDice/HPGL2WMF/YBMacro into one core program.

Menu forms remember last screen and location

Updated Playtime with new cases

**Software Functions/Features**

New Missing Data Estimate

New Library Features

New Logbook to store notes and results

New Report Form for tables of data output, rather than overwriting plot.

Improved MLE  $t_0$  calculations

New Path of Steepest Ascent algorithm for Mixture analysis

New Inspect Option #1 for Mixture Analysis

Improved Mixture analysis/choices in SSW

Combine data sets for overall reliability

Updated  $r^2$  calculation for Weibayes plots

SuperSMITH Key for Full/Demo/Student use.

Special Instructor features for class use.

Increased points for contour plots

Help file shows current screen resolution

**Plotting:**

Common plot layout in all 3 programs