

FAS 123 Toolkit FAQ

February 25, 2005

ID	Question	Answer
(1)	Do you have any documentation describing the functionality in the FAS123 Toolkit?	Yes. After loading OPTIONS XL, click FinTools Share-Based Payment FAS123 Toolkit Quick Start.
(2)	How do I access the functions and templates that are included in the FAS123 Toolkit?	After loading OPTIONS XL, click FinTools Share-Based Payment SBP Navigator. Click on the numbered buttons on the left side of the template.
(3)	How do I change the inputs to a function that outputs an array such as OptionsFlexMC_SOEB() ?	Highlight any cell within the output array, and press F2. When finished making changes on the edit line, press Ctrl-Shift-Enter.
(4)	How many Monte Carlo iterations should I run to generate an accurate Fair Value?	In specific terms the higher the number of iterations, the more accurate the calculation. In practical terms, the recalculation time must be considered, and an optimal number of iterations determined. Use function 201 to output the Standard Deviation of the simulated Fair Value from the Monte Carlo paths. If the fair value, for example, is 10.00 and the standard deviation is 0.10, then there is about a 68% probability that the fair value will fall within a range from 9.90 to 10.10. If you do not believe this provides sufficient accuracy, then run the simulation with a higher number of iterations. There is not a specific answer to this question; judgment must be applied in selecting an acceptable number of iterations.
(5)	What interest rates should I input to function OptionsFlexMC() ?	A range of Forward Interest Rates is theoretically the most accurate input. Given as an input the U.S. Treasury Yield Curve, you can calculate the Forward Rates using function ImpliedForwardRate(). The historical U.S. Treasury rates can be accessed from the SBP Navigator.
(6)	What is the difference between expected term and implied expected life in the lattice and Monte Carlo functions?	Expected term is the average time to exercise, forfeiture or expiration. If no early exercise takes place then the expected term is equivalent to the contractual term. Implied expected life is the time input to the Black-Scholes model given an exercise price, volatility, interest rate and dividend yield that results in a specified fair value.
(7)	Why is the fair value of an American exercise style option worth less than a European style option when assuming a suboptimal exercise behavior factor of 2 as in the FAS 123R Appendix A Illustration 4?	The output from the lattice model may seem counterintuitive initially; the fair value of an option with American-style exercise is worth less than the European-style option. Contact Montgomery Investment Technology, Inc. for a copy of our diagram that illustrates the vesting impact on the valuation of an ESO assuming suboptimal exercise behavior. The diagram shows three vesting scenarios: immediate, 3 years and 10 years.