fd_gauss_in

Input parameters:

- SpaceStepNumber N

- TimeStepNumber M

- Theta $\frac{1}{2} \leq \theta \leq 1$

Output parameters:

- Price

- Delta

To obtain accurate prices the grid points is located on the barriers, where we impose Dirichlet boundary conditions.there. One uses linear interpolation to find the option value and delta value corresponding to the initial stock price. If the initial stock price is close to barrier one uses for delta one-sided second-order difference approximation. In the american case we use the splitting methods. It seems that it converges very slowly. For this routine we send the reader to the Routine fd_gauss_downout.c