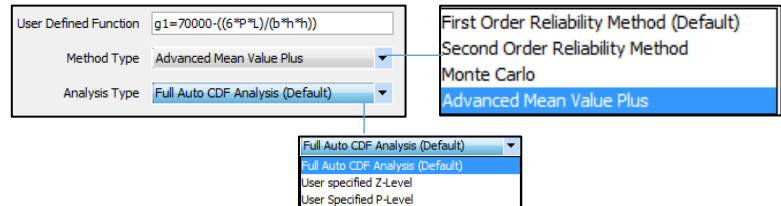


GENOA PROBABILISTIC ANALYSIS (PA)

GENOA Probabilistic Analysis is an add-on package that allows users to study statistical datasets (variable and responses) or use a close form function (G function) along with the statistics of random variables to produce Cumulative Distribution Function (CDF), Probability Density Function (PDF), and probabilistic sensitivities (how to increase/decrease response). This allows users to utilize the probabilistic backbone at their own discretion to study their own functions and is not related to PFA or MCQ computations. This requires the variables to be defined by their mean, standard deviation, and distribution type (Normal, Lognormal, Weibull).

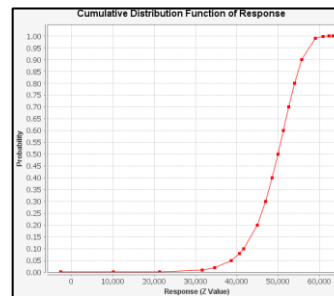
- ✓ Generates CDF and PDF of user defined datasets or functions.
- ✓ Generates probabilistic sensitivities



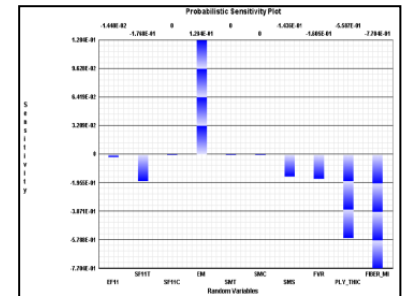
Key Benefits

- Studies user defined response to improve design durability and reliability.
- Evaluates the reliability of aerospace and automotive composite parts and structures.
- Helps in rationalizing between two competing designs based on failure probability.
- Treats non-statistical uncertainty as a random variable.
- Reliably predicts failure in increased risk composite structures (e.g., pressure vessels, leading edge, chassis).
- Reduces experimental testing by eliminating non-influential design variables.

CDF For All Responses and Variables



Sensitivities



System Requirements

- Windows XP/Vista/7/8 or Linux (64-bit)
- Java 1.7 minimum Runtime Libraries

Minimum Configuration

With the minimum configuration, performance and functionality may be less than expected.

- 1 GHz or higher CPU, 4GB RAM, 10GB disk space

Random Variables Are User Defined

Name	Mean Value	Standard Deviation	Distribution Type
P	7.500000E+02	7.500000E+01	Normal
L	1.200000E+02	1.200000E+01	Log Normal
b	3.000000E+00	3.000000E-01	Normal
h	3.000000E+00	3.000000E-01	Weibull

Corporate Headquarters
Alpha STAR Corporation
5150 East Pacific Coast Highway Ste. 650
Long Beach, California 90804 USA
Telephone: (562) 961-7827
Sales: info@alphastarcorp.com
Support: support@alphastarcorp.com

European Offices
Alpha Consulting Services
Via A. Silvani 118
00139 Roma
Telephone: +39 328 7041 876
Sales:
info@alphaconsultingservices.it

For more information:

<http://www.alphastarcorp.com/>

More of Alpha STAR's Test Validated products:

MCQ: Composites, Ceramics, Metals, Nano, Chopped
GENOA: PFA, PFDA, UAB, URD, ABS, PCP, PA, Quasi
Static Fatigue & Random Fatigue, Harmonic & PSD
Fatigue, Fatigue with Fracture Mechanics,
PFA_AGING, VC2T, DC2M, Filament Winding,
Jobspooler, GENOA_CLOUD