

PRODUCT OVERVIEW

NextSigma's RiskWizard is a proprietary software tool that helps Six Sigma technologists, designers, process engineers and others assess the interactive effects of process variation, measurement error and tolerance limits on products or processes. The financial impact of these factors may be computed and sensitivity analysis may be performed in order to make changes to increase the producibility of the system.

RiskWizard allows users to create an initial design configuration and analyze the test and measurement performance in terms of standard metrics. It also allows the user to analyze actual test data to determine the true producibility of the product or process under study. There are two key measures involved in the assessment of the financial impact of test and measurement performance. They are the false failure rate and the false pass rate. RiskWizard computes these risks and provides an easy interface for entering production data.

Finally, combining the risk and production data information, RiskWizard calculates the costs due to measurement system error. Traditional measures like C_{pk} and Gage R&R percent of tolerance do not provide a means of directly computing these costs and are limited in usefulness.

KEY FEATURES

- ◆ RiskWizard's cost analysis provides financial performance information that is not provided by measurement routines in traditional statistical analysis software.
- ◆ RiskWizard offers the ability to perform true statistical tolerancing for a product not yet in existence.
- ◆ RiskWizard's sensitivity analysis capability clearly identifies specific variables for focused improvement efforts.
- ◆ RiskWizard provides standard process capability and Gage R&R metrics.
- ◆ RiskWizard allows the user to analyze measurement data from test systems which involve either single or multiple, correlated responses.
- ◆ RiskWizard allows the user to analyze both balanced or unbalanced designs, unlike the measurement routines in the standard statistical packages.
- ◆ Design effects can be random, fixed or a mixture of both thus providing a much more general methodology for assessing test and measurement, producibility and statistical tolerancing analyses, also unlike the standard statistical packages.

PRICING INFORMATION

RiskWizard is offered at **\$299** per individual license. Corporate and site discounts are available.

Call now to order your copy of RiskWizard!

To contact NextSigma to order your individual copy or to arrange for your free 10-day trial of RiskWizard,

Call Customer Service

(970)- 266-8052

or send an e-mail to:

sales@nextsigma.com

ABOUT NEXTSIGMA

NextSigma provides solutions that have been specifically tailored for the DMAIC Six Sigma, Design for Six Sigma (DFSS), Project Management, Quality Improvement, and Test & Measurement markets. For more information on NextSigma software products go to www.nextsigma.com.

RiskWizard®

State of the Art Risk Analysis Software



Introduction

NEXTSIGMA Inc.
933 N. US Hwy 287
Fort Collins, Colorado 80524
www.nextsigma.com

RISKWIZARD®

State of the Art Test and Measurement Software

Copyright © 2003 NextSigma Inc. All rights reserved.

1. RiskWizard Intro View

Data Definition

Model Risks
Data File: EX08.TXT

VARIABLE CONTROLS
Variable Name: Trial
Random Factor Fixed Factor Response Skip
LSL: 0.00000
USL: 0.00000

VARIABLE ATTRIBUTES

Variable	Trial	Vendor	Part	Chromaticity	Refractivity
Type	Random Factor	Random Factor	Random Factor	Response	Skipped

LSL
USL

DATA

Observation	Trial	Vendor	Part	Chromaticity	Refractivity
1	1.0000000...	1.0000000...	1.0000000...	7.6000000...	1.0400000...
2	2.0000000...	1.0000000...	1.0000000...	6.6000000...	4.7600000...
3	3.0000000...	1.0000000...	1.0000000...	6.9000000...	6.1900000...
4	4.0000000...	1.0000000...	1.0000000...	7.6000000...	1.7500000...
5	5.0000000...	1.0000000...	1.0000000...	7.9000000...	1.1700000...
6	1.0000000...	1.0000000...	1.0000000...	1.0000000...	1.1000000...

2. Data and Model Definition View

Univariate Risk Analysis

Response: variable
Factor: part/process

Response LSL: -2.000000
Response USL: 2.000000
Response Std Dev: 1.000000

Response Mean: 0.000000
Factor Std Dev: 0.974679
Error Std Dev: 0.229607

Process Probabilities
Pass = 0.95450
Fail = 0.04550

Conditional Probabilities
Pass | In-Spec = 0.98744
Fail | In-Spec (alpha) = 0.01236
Pass | Out-of-Spec (beta) = 0.16741
Fail | Out-of-Spec = 0.83259

Summary Statistics
Cp = 0.667
Cpk = 0.667
D.X. = 6.245
Ger = 33.3%

Joint Probabilities
Pass and In-Spec = 0.94777
Fail and In-Spec = 0.01200
Pass and Out-of-Spec = 0.00673
Fail and Out-of-Spec = 0.03345

Data File: Model Risks
Print Page Reset

3. Interactive Modeling View

Cost Analysis

DATA SET
Data File: Model Risks
Factor: part/process

PRODUCTION DATA
Number Produced: 10000
Cost of Product (\$): 2.0000
% of failed products scrapped: 0.25
Scrap Cost (\$): 1.0000
Customer Return Cost (\$): 5.0000
% of failed products reworked: 0.75
Rework Cost (\$): 4.0000

PREDICTED PROCESS PERFORMANCE

	Pass	Fail
Number	9545	455

TOTAL COSTS

	Number Observed	Actual Number	Cost
Products Shipped	9886	9819	\$ 21813.00
Products Scrapped	114	84	\$ 342.00

	Necessary	Unnecessary	Cost
Scrap	\$ 84.00	\$ 50.00	Alpha Error \$ 394.00
Rework	\$ 1000.00	\$ 364.00	Beta Error \$ 335.00

Cost per product shipped: \$ 2.2065

Fail and In-Spec: 121
Fail and Out-of-Spec: 334

Print Page Reset

4. Cost Results View