In addition to this summary, this report includes the following forms:

1 CRITICALITY ANALYSIS (Standard)
2 CRITICALITY RANKS
3 CRITICALITY MATRIX (MIL-STD Quantitative)

Xfmea Report Sample – Quantitative Criticality

This report was generated with ReliaSoft's Xfmea software in Microsoft Word. Similar reports can also be generated in Microsoft Excel. You can easily replace the Xfmea logo graphic with your own company logo. Within Word and Excel, reports can be edited/annotated, if necessary, and generated in PDF and/or HTML format for easy distribution.

This report includes:

- Quantitative Criticality Analysis spreadsheet in a modified reporting format based on MIL-STD-1629A.
- Criticality Ranks spreadsheet, which ranks items by Item Criticality then failure modes by Mode Criticality.
- Quantitative Criticality Matrix chart, as specified in MIL-STD-1629A.

Reports are based on fictional information that is not intended to be realistic.

ITEMS	OPERATING TIME	ITEM UNRELIABILITY	FUNCTIONS	FAILURES AND CAUSES	MODE RATIO OF UNRELIABILITY	PROBABILITY OF LOSS	MODE CRITICALITY	ITEM CRITICALITY
1 - Component A	1000	0.51	Item functions as intended.	Failure Mode 1 - Cause1 for Mode 1 - Cause 2 for Mode 1 - Cause 3 for Mode 1	0.3	0.75	0.115	0.169
				Failure Mode 2 - Cause 1 for Mode 2 - Cause 2 for Mode 2	0.7	0.15	0.054	
2 - Component B	1000	0.162	Item functions as intended.	Failure Mode 3 - Cause 1 for Mode 3 - Cause 2 for Mode 3 - Cause 3 for Mode 3	0.25	0.8	0.032	0.065
				Failure Mode 4 - Cause 1 for Mode 4	0.65	0.25	0.026	
				Failure Mode 5 - Cause 1 for Mode 5 - Cause 2 for Mode 5	0.1	0.45	0.007	
3 - Component C	1000	0.361	Item functions as intended.	Failure Mode 6 - Cause 1 for Mode 6 - Cause 2 for Mode 6	0.15	0.9	0.049	0.064
				Failure Mode 7 - Cause 1 for Mode 7 - Cause 2 for Mode 7	0.85	0.05	0.015	

ITEMS	ITEM CRITICALITY	FAILURES AND CAUSES	MODE CRITICALITY
1 - Component A	0.169	Failure Mode 1 - Cause1 for Mode 1 - Cause 2 for Mode 1 - Cause 3 for Mode 1	0.115
		Failure Mode 2 - Cause 1 for Mode 2 - Cause 2 for Mode 2	0.054
2 - Component B	0.065	Failure Mode 3 - Cause 1 for Mode 3 - Cause 2 for Mode 3 - Cause 3 for Mode 3	0.032
		Failure Mode 4 - Cause 1 for Mode 4	0.026
		Failure Mode 5 - Cause 1 for Mode 5 - Cause 2 for Mode 5	0.007
3 - Component C	0.064	Failure Mode 6 - Cause 1 for Mode 6 - Cause 2 for Mode 6	0.049
		Failure Mode 7 - Cause 1 for Mode 7 - Cause 2 for Mode 7	0.015

INCREASING CRITICALITY

(HIGH)

CRITICALITY NUMBER (Cr)
(INCREASING LEVEL OF CRITICALITY --------->)

Up to 0.115			- Failure Mode 1 (0.115)	
Up to 0.103				
Up to 0.091				
Up to 0.079				
Up to 0.067				
Up to 0.055	- Failure Mode 2 (0.054)			- Failure Mode 6 (0.049)
Up to 0.043			- Failure Mode 3 (0.032)	
Up to 0.031		- Failure Mode 4 (0.026)		
Up to 0.019	- Failure Mode 7 (0.015)			
0.007		- Failure Mode 5 (0.007)		
(LOW)	**Category IV - Minor**	**Category III - Marginal**	**Category II - Critical**	**Category I - Catastrophic**

SEVERITY CLASSIFICATION
(INCREASING LEVEL OF SEVERITY ------>)

In addition to this summary, this report includes the following forms:

Xfmea Report Sample – Quantitative Criticality (2)

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This report includes:

- Criticality Ranks spreadsheet, which ranks items by Item Criticality then failure modes by Mode Criticality.
- Quantitative Criticality Analysis spreadsheet in the MIL-STD-1629A reporting format.
- Quantitative Criticality Matrix chart, as specified in MIL-STD-1629A.

Reports are based on fictional information that is not intended to be realistic.

ITEMS	ITEM CRITICALITY	FAILURES AND CAUSES	MODE CRITICALITY
1 - Widget	0.322	Improper lubrication. - Maintenance personnel did not provide sufficient lubrication. - A leak caused the accelerated depletion of lubricating material.	0.212
		Improper installation. - Quality Assurance controls for assembly do not function adequately. - Repair personnel did not install new component properly.	0.058
		Defective part. - Quality Assurance controls for manufacturing do not function adequately.	0.052

CRITICALITY ANALYSIS
(Quantitative Analysis - 3.2)

SYSTEM 1 - Widget
INDENTURE LEVEL 1 - Widget (Level 1)
REFERENCE DRAWING RS 12345
MISSION Description of mission.

DATE

COMPILED BY ReliaSoft Corporation
APPROVED BY ReliaSoft Corporation

IDENTIFICATION NUMBER	ITEM/FUNCTIONAL IDENTIFICATION (NOMENCLATURE)	FUNCTION	FAILURE MODES AND CAUSES	MISSION PHASE/ OPERATIONAL MODE	UNRELIABILITY DATA SOURCE	FAILURE EFFECT PROBABILITY (β)	FAILURE MODE RATIO (α)	ITEM UNRELIABILITY	OPERATING TIME (t)	FAILURE MODE CRIT # Cm=ba|pt	ITEM CRIT # Ci=S(Cm)	REMARKS
1	Widget	Performs an unnamed mechanical function.	Defective part. - Quality Assurance controls for manufacturing do not function adequately.	All phases.	In-house testing and analysis of field data.	0.9	0.15	0.386	750	0.052	0.322	This is an imaginary product used for demonstration purposes.
			Improper installation. - Quality Assurance controls for assembly do not function adequately. - Repair personnel did not install new component properly.	All phases.		0.5	0.3			0.058		
			Improper lubrication. - Maintenance personnel did not provide sufficient lubrication. - A leak caused the accelerated depletion of lubricating material.	All phases.		1	0.55			0.212		

INCREASING CRITICALITY

(HIGH)

CRITICALITY NUMBER (Cr) (INCREASING LEVEL OF CRITICALITY ---------->)	Category IV - Minor	Category III - Marginal	Category II - Critical	Category I - Catastrophic
Up to 0.214				- Improper lubrication. (0.212)
Up to 0.196				
Up to 0.178				
Up to 0.16				
Up to 0.142				
Up to 0.124				
Up to 0.106				
Up to 0.088				
Up to 0.07		- Improper installation. (0.058)		
0.052			- Defective part. (0.052)	

(LOW)

SEVERITY CLASSIFICATION
(INCREASING LEVEL OF SEVERITY ------>)