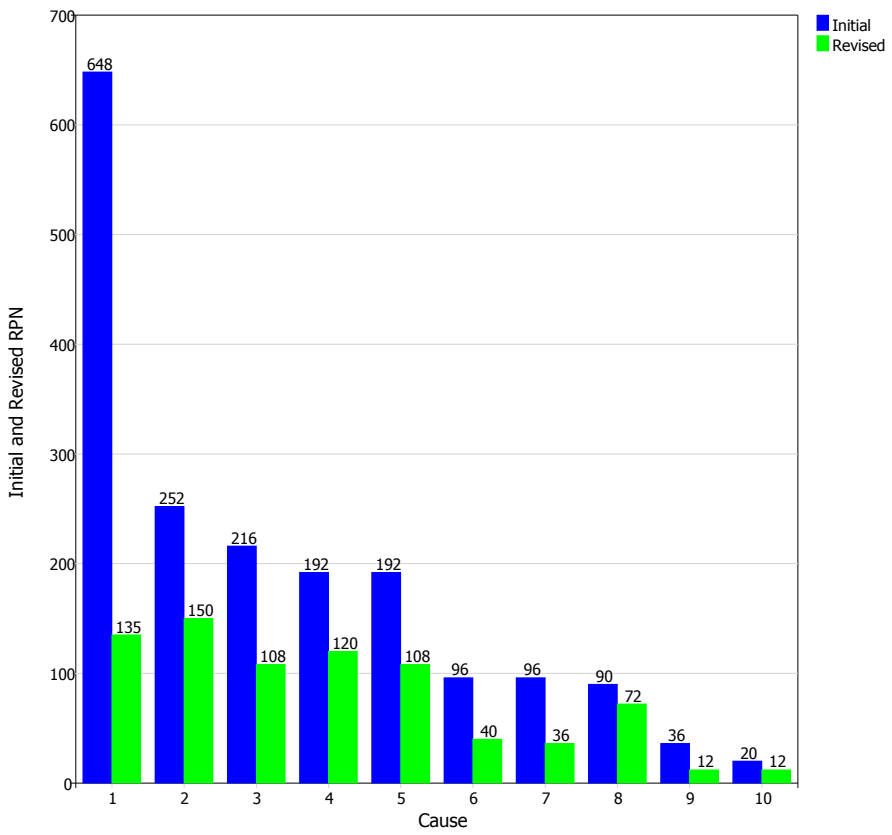
Xfmea Report Sample – Graphical Charts

These charts were generated by ReliaSoft's Xfmea software and the chart graphics and legends were copy/pasted into a report document in Microsoft Word. Chart graphics can also be saved as Metafiles (*.wmf) that can be inserted into other documents and annotated with metafile graphics editing software. Sample charts include:

- Pareto (bar) chart of the top 10 initial and revised cause RPNs in the analysis, ranked by initial RPN. The chart can also display only initial RPNs, only revised RPNs, the top 5, top 15, etc.
- Pareto (bar) chart of the top 5 causes based on % reduction in RPN from initial to revised.
- Occurrence/Severity Matrix chart, which lists the Severity ratings on the horizontal axis and the Occurrence ratings on the vertical axis and plots a point at the intersection of those ratings associated with each failure cause identified in the analysis. The boundaries for high, medium and low priority are user-configurable.
- Pareto (bar) chart of the top 6 effects ranked by initial severity rating.
- Pareto (bar) chart of the top 12 causes ranked by initial occurrence rating.
- Pareto (bar) chart with the top 12 causes ranked by initial detection rating.
- Pie chart demonstrating the number of effects assigned to each available Severity rating, with the legend displayed on the side.
- Pie chart demonstrating the number of causes assigned to each available Occurrence rating, with the legend information displayed directly on the chart.
- Pie chart demonstrating the number of causes assigned to each available Detection rating.
- Pareto (bar) chart of the top five actions ranked by actual cost, with legend and user information displayed on the side.
- Pie chart demonstrating the number of actions per status category (overdue, due, complete, approved).
- Pie chart demonstrating the number of actions per category, where the categories are user-configurable.
- Pie chart demonstrating the number of actions per priority, where the priority levels are user-configurable.
- Pie chart demonstrating the number of controls per type, where the types are configurable by the user.

These charts are based on sample information, which is not intended to be realistic.

Causes Ranked by Initial RPN (1 to 10)

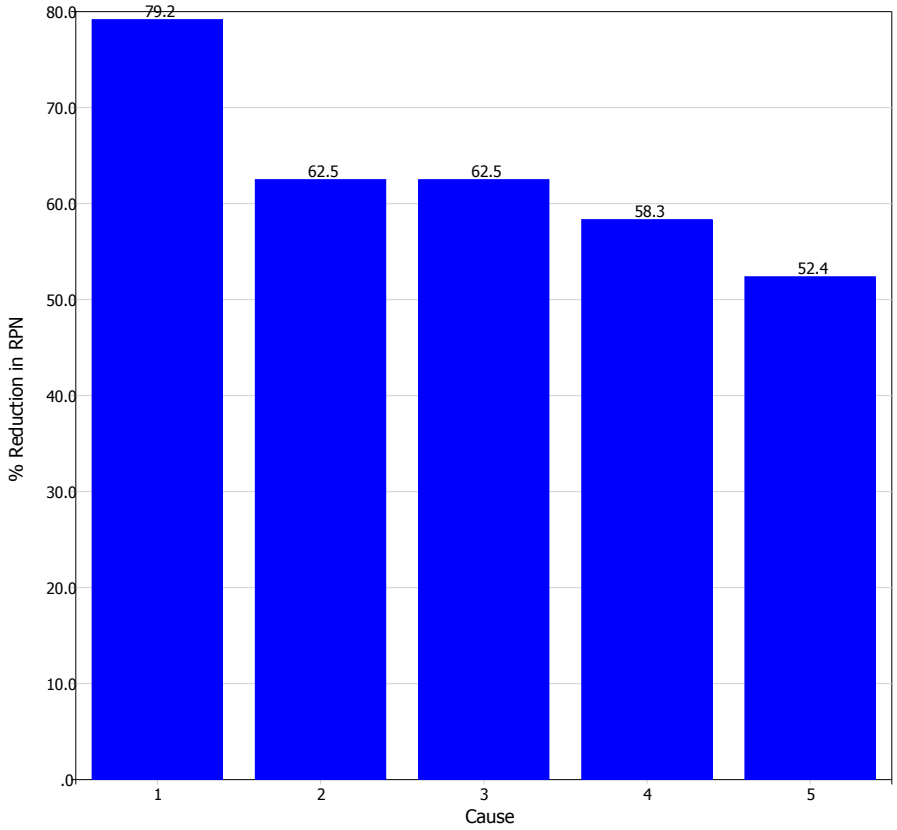


XFMEA Database: C:/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Causes Ranked by Initial RPN (1 to 10)
1: RPNi = 648, RPNr = 135 - Improper alignment (Item: 1000 - System A)
2: RPNi = 252, RPNr = 150 - Backlash, insufficient (Item: 1000 - System A)
3: RPNi = 216, RPNr = 108 - Friction, abnormal (Item: 1000 - System A)
4: RPNi = 192, RPNr = 120 - Electromigration (Item: 1000 - System A)
5: RPNi = 192, RPNr = 108 - Improper diffusion (Item: 1000 - System A)
6: RPNi = 96, RPNr = 40 - Excessive heat (Item: 1000 - System A)
7: RPNi = 96, RPNr = 36 - Incorrect algorithm (Item: 1000 - System A)
8: RPNi = 90, RPNr = 72 - Improper start up (Item: 1000 - System A)
9: RPNi = 36, RPNr = 12 - Over etch (Item: 1000 - System A)
10: RPNi = 20, RPNr = 12 - Chemical oxidation (Item: 1000 - System A)

Causes Ranked by RPN % Reduction (1 to 5)

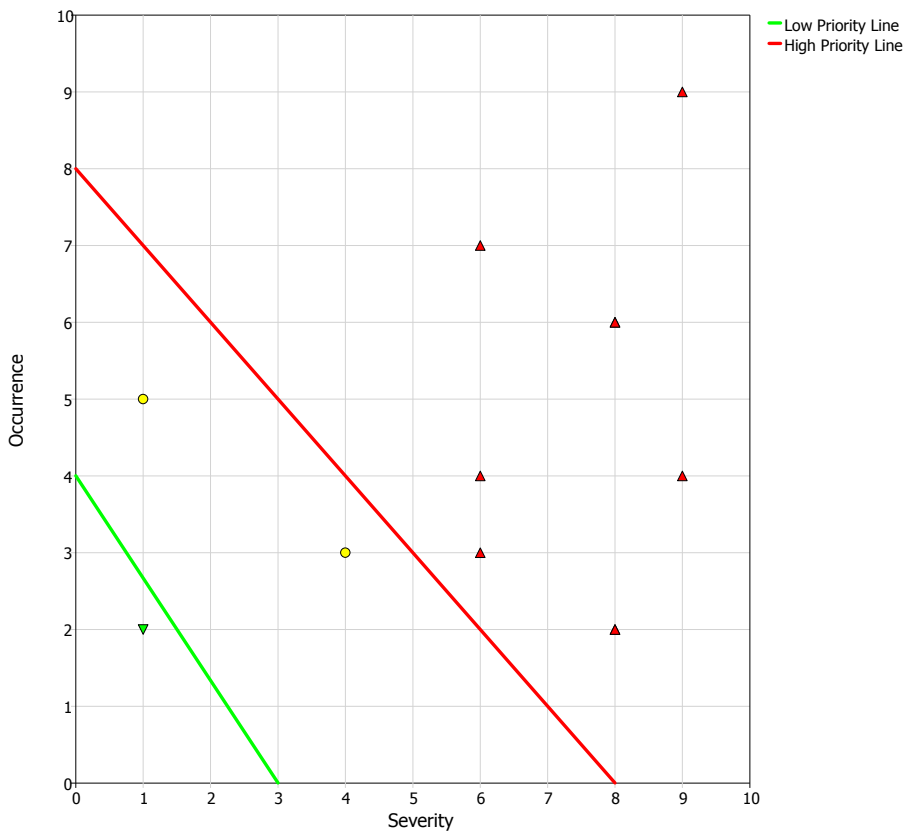


XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Causes Ranked by RPN % Reduction (1 to 5)
1: % Reduction = 79.167 - Improper alignment (Item: 1000 - System A)
2: % Reduction = 66.667 - Over etch (Item: 1000 - System A)
3: % Reduction = 62.5 - Lean fuel air mixtures (Item: 1000 - System A)
4: % Reduction = 62.5 - Incorrect algorithm (Item: 1000 - System A)
5: % Reduction = 58.333 - Excessive heat (Item: 1000 - System A)

Occurrence/Severity Matrix (Initial Ratings)



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

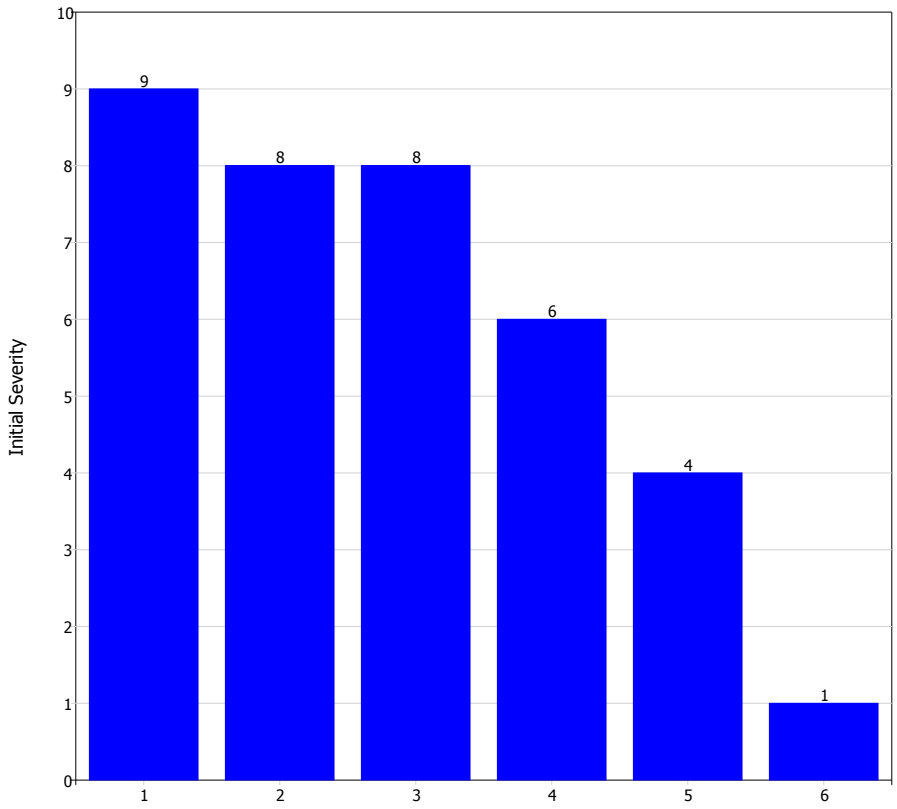
Selected Items:
1000 - System A

High Priority Causes:
Friction, abnormal (Item: 1000 - System A) Sev = 9, Occ =4
Improper alignment (Item: 1000 - System A) Sev = 9, Occ =9
Incorrect algorithm (Item: 1000 - System A) Sev = 8, Occ =6
Lean fuel air mixtures (Item: 1000 - System A) Sev = 8, Occ =2
Improper diffusion (Item: 1000 - System A) Sev = 6, Occ =4
Improper start up (Item: 1000 - System A) Sev = 6, Occ =3
Backlash, insufficient (Item: 1000 - System A) Sev = 6, Occ =7
Excessive heat (Item: 1000 - System A) Sev = 8, Occ =2
Electromigration (Item: 1000 - System A) Sev = 8, Occ =6

Medium Priority Causes:
Chemical oxidation (Item: 1000 - System A) Sev = 1, Occ =5
Over etch (Item: 1000 - System A) Sev = 4, Occ =3

Low Priority Causes:
Buildup (Item: 1000 - System A) Sev = 1, Occ =2

Effects Ranked by Initial Severity (1 to 6)

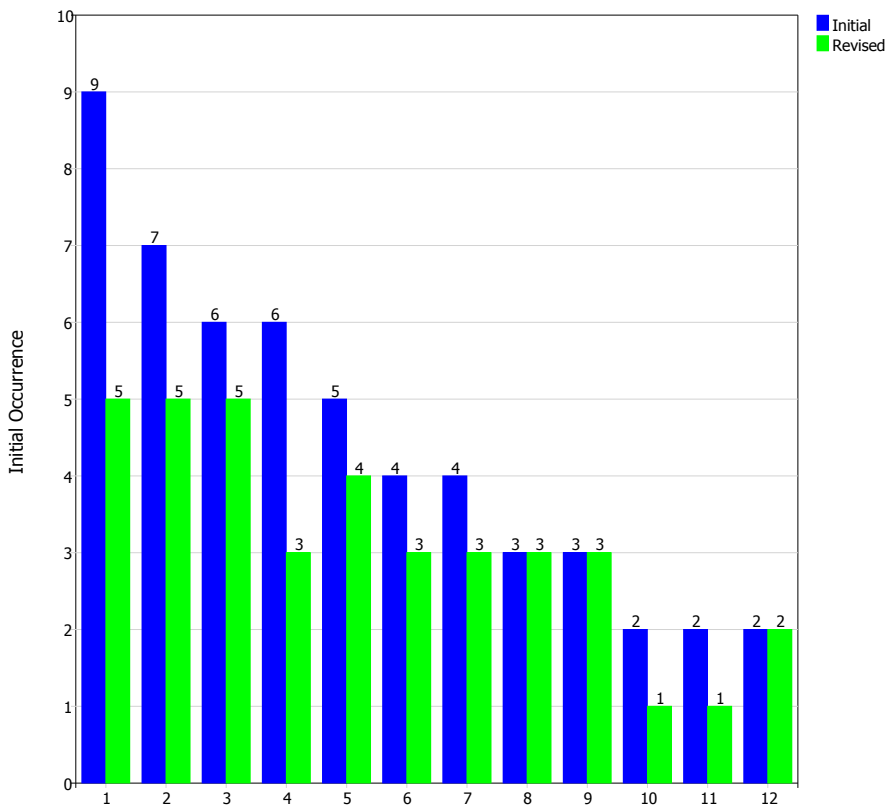


XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Effects Ranked by Initial Severity (1 to 6)
1: Si = 9 - Endangers operator (Item: 1000 - System A)
2: Si = 8 - Control impaired (Item: 1000 - System A)
3: Si = 8 - Rough (Item: 1000 - System A)
4: Si = 6 - Intermittent operation (Item: 1000 - System A)
5: Si = 4 - Customer dissatisfaction (Item: 1000 - System A)
6: Si = 1 - Control impaired (Item: 1000 - System A)

Causes Ranked by Initial Occurrence (1 to 12)

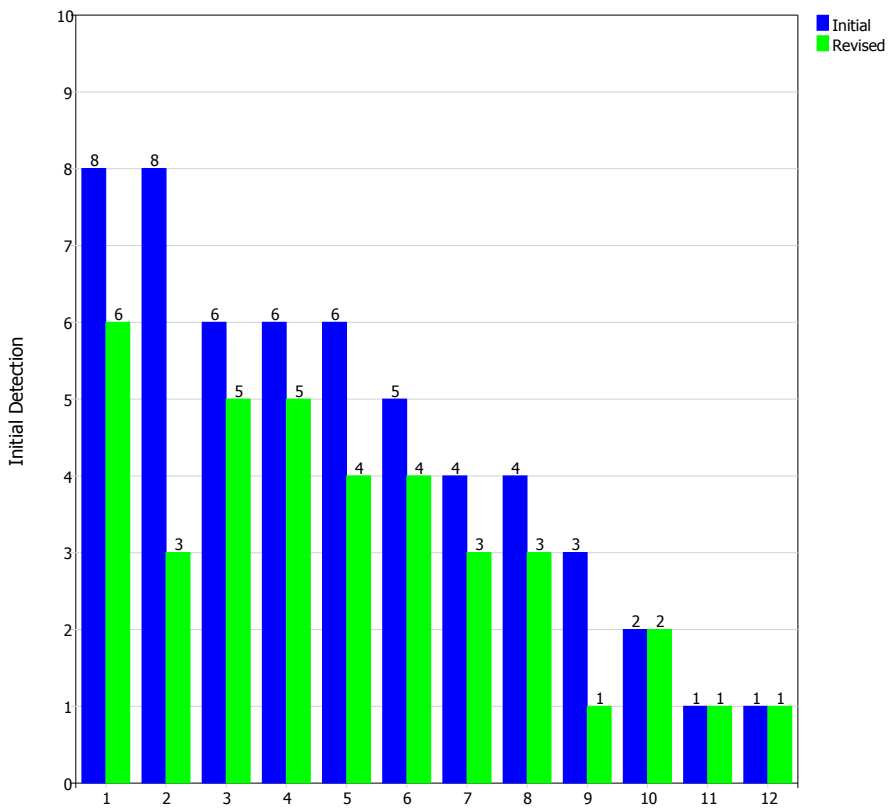


XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Causes Ranked by Initial Occurrence (1 to 12)
1: Oi = 9, Or = 5 - Improper alignment (Item: 1000 - System A)
2: Oi = 7, Or = 5 - Backlash, insufficient (Item: 1000 - System A)
3: Oi = 6, Or = 5 - Electromigration (Item: 1000 - System A)
4: Oi = 6, Or = 3 - Incorrect algorithm (Item: 1000 - System A)
5: Oi = 5, Or = 4 - Chemical oxidation (Item: 1000 - System A)
6: Oi = 4, Or = 3 - Improper diffusion (Item: 1000 - System A)
7: Oi = 4, Or = 3 - Friction, abnormal (Item: 1000 - System A)
8: Oi = 3, Or = 3 - Over etch (Item: 1000 - System A)
9: Oi = 3, Or = 3 - Improper start up (Item: 1000 - System A)
10: Oi = 2, Or = 1 - Excessive heat (Item: 1000 - System A)
11: Oi = 2, Or = 1 - Lean fuel air mixtures (Item: 1000 - System A)
12: Oi = 2, Or = 2 - Buildup (Item: 1000 - System A)

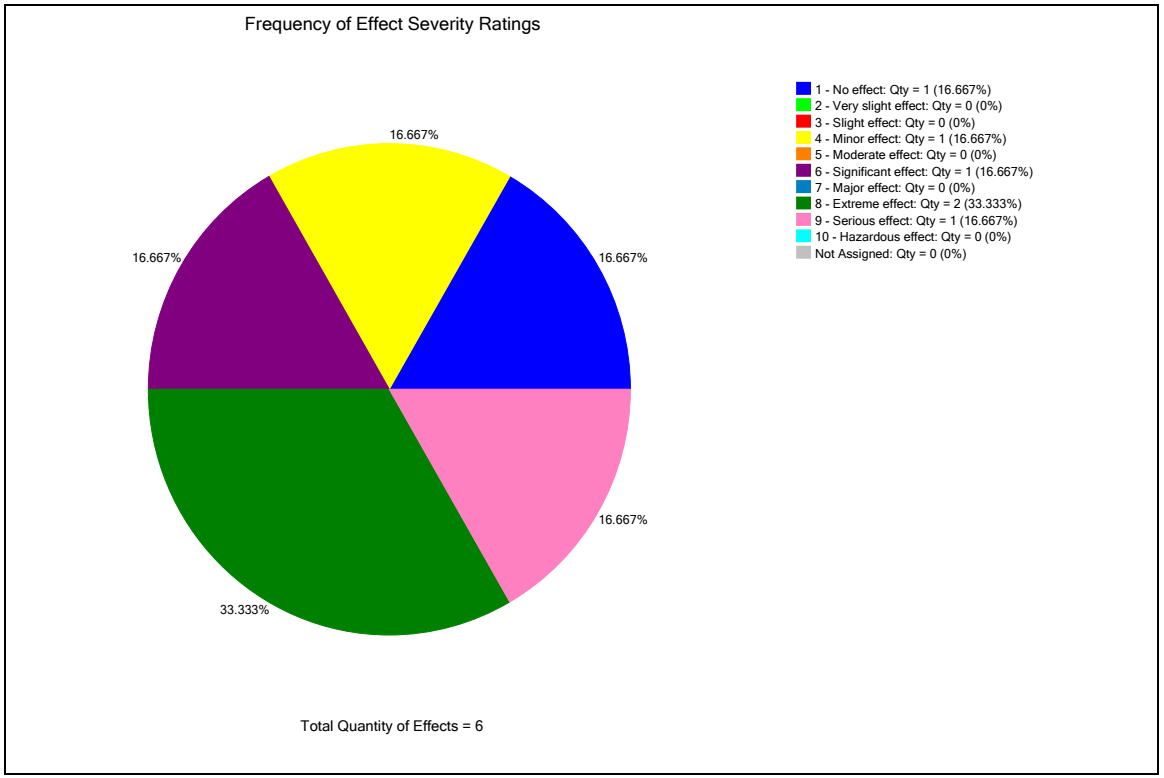
Causes Ranked by Initial Detection (1 to 12)



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

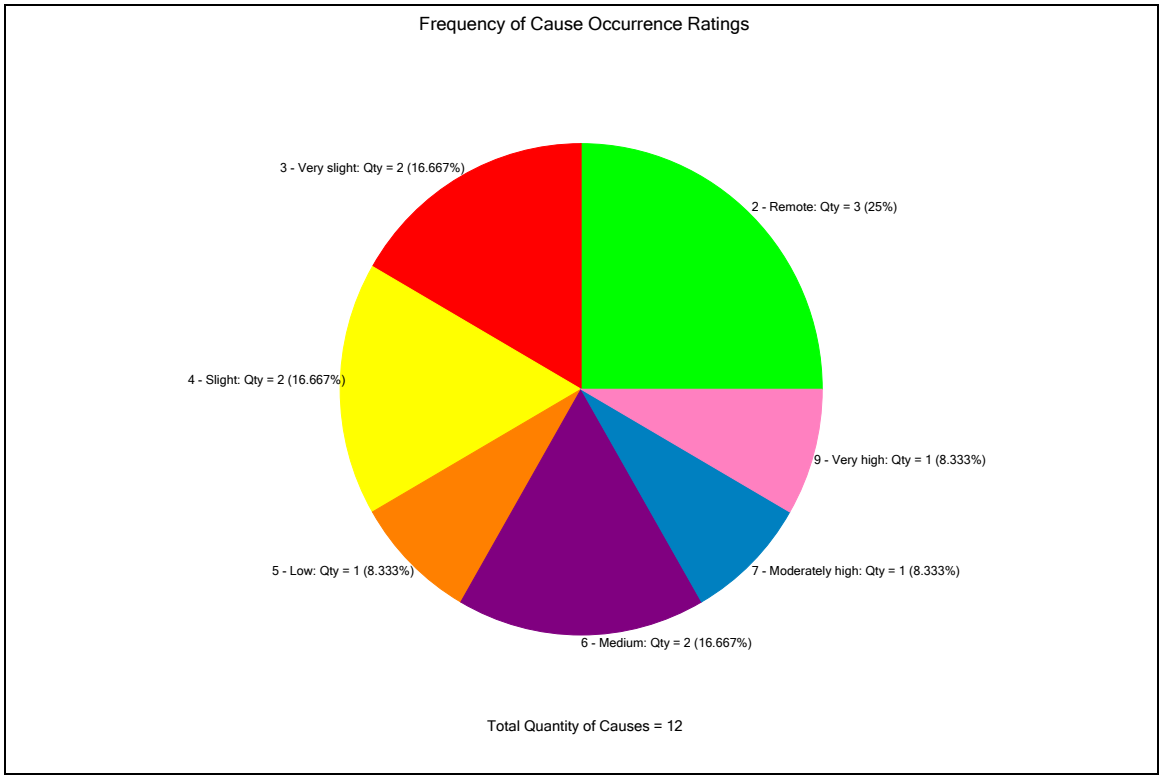
Causes Ranked by Initial Detection (1 to 12)
1: Di = 8, Dr = 6 - Improper diffusion (Item: 1000 - System A)
2: Di = 8, Dr = 3 - Improper alignment (Item: 1000 - System A)
3: Di = 6, Dr = 5 - Excessive heat (Item: 1000 - System A)
4: Di = 6, Dr = 5 - Backlash, insufficient (Item: 1000 - System A)
5: Di = 6, Dr = 4 - Friction, abnormal (Item: 1000 - System A)
6: Di = 5, Dr = 4 - Improper start up (Item: 1000 - System A)
7: Di = 4, Dr = 3 - Electromigration (Item: 1000 - System A)
8: Di = 4, Dr = 3 - Chemical oxidation (Item: 1000 - System A)
9: Di = 3, Dr = 1 - Over etch (Item: 1000 - System A)
10: Di = 2, Dr = 2 - Incorrect algorithm (Item: 1000 - System A)
11: Di = 1, Dr = 1 - Lean fuel air mixtures (Item: 1000 - System A)
12: Di = 1, Dr = 1 - Buildup (Item: 1000 - System A)



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

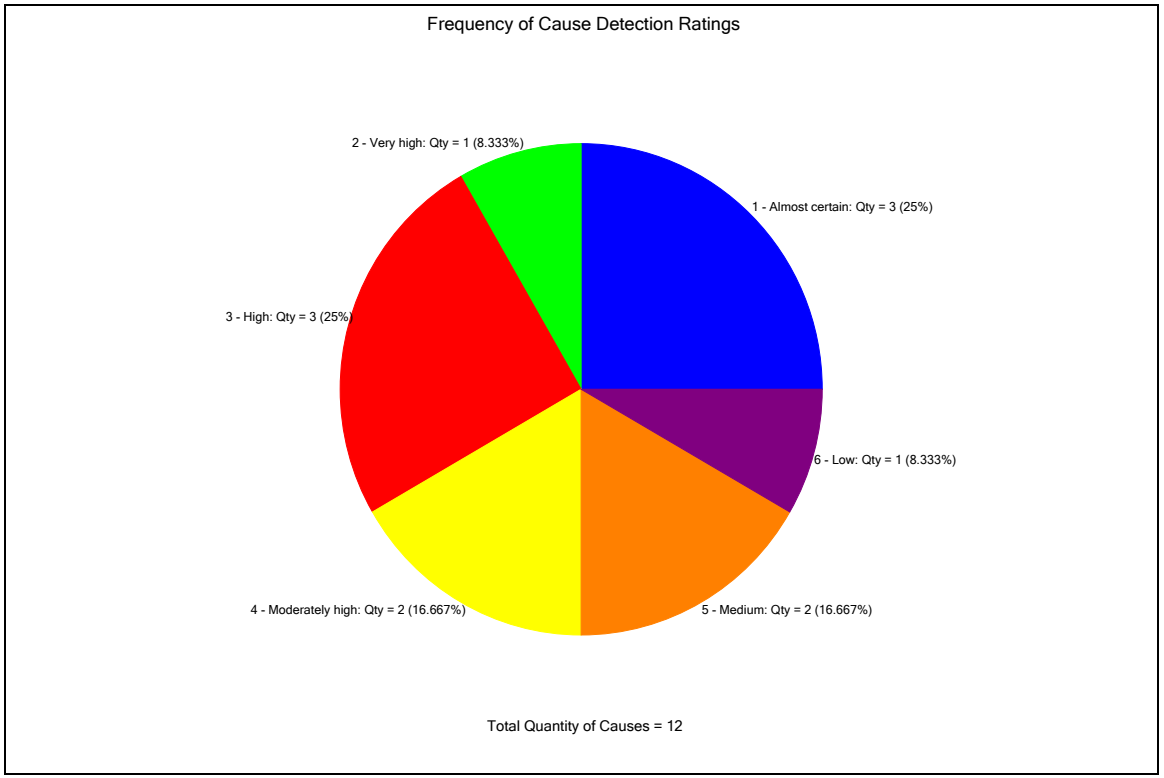
Frequency of Effect Severity Ratings
1 - No effect: Qty = 1 (16.667%)
2 - Very slight effect: Qty = 0 (0%)
3 - Slight effect: Qty = 0 (0%)
4 - Minor effect: Qty = 1 (16.667%)
5 - Moderate effect: Qty = 0 (0%)
6 - Significant effect: Qty = 1 (16.667%)
7 - Major effect: Qty = 0 (0%)
8 - Extreme effect: Qty = 2 (33.333%)
9 - Serious effect: Qty = 1 (16.667%)
10 - Hazardous effect: Qty = 0 (0%)
Not Assigned: Qty = 0 (0%)



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Frequency of Cause Occurrence Ratings
1 - Almost never: Qty = 0 (0%)
2 - Remote: Qty = 3 (25%)
3 - Very slight: Qty = 2 (16.667%)
4 - Slight: Qty = 2 (16.667%)
5 - Low: Qty = 1 (8.333%)
6 - Medium: Qty = 2 (16.667%)
7 - Moderately high: Qty = 1 (8.333%)
8 - High: Qty = 0 (0%)
9 - Very high: Qty = 1 (8.333%)
10 - Almost certain: Qty = 0 (0%)
Not Assigned: Qty = 0 (0%)

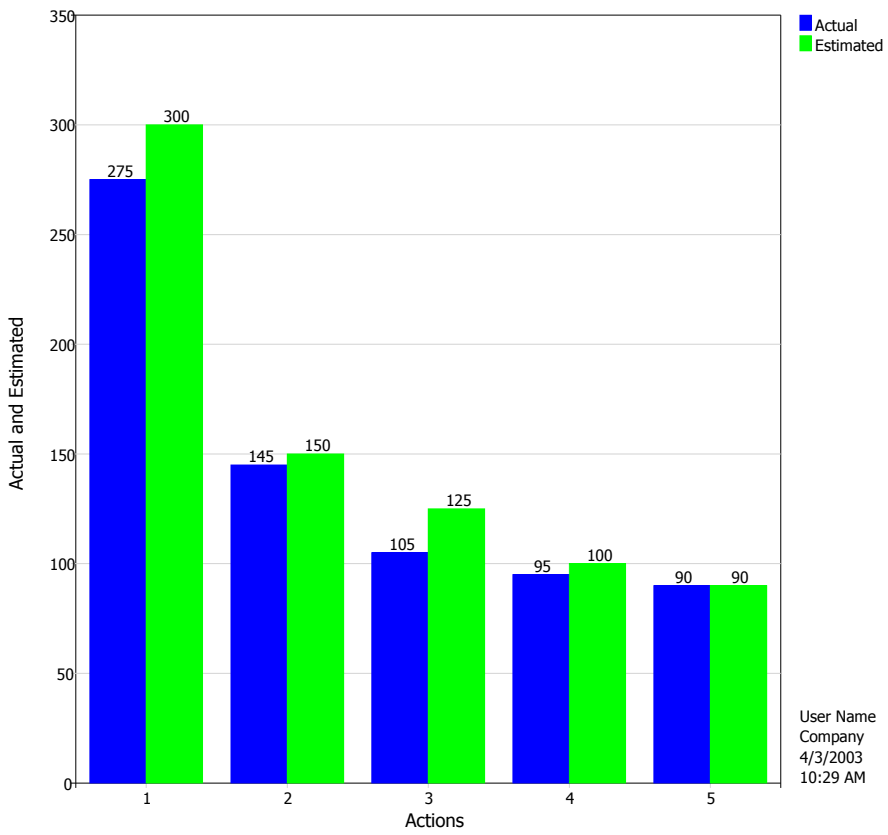


XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Frequency of Cause Detection Ratings
1 - Almost certain: Qty = 3 (25%)
2 - Very high: Qty = 1 (8.333%)
3 - High: Qty = 3 (25%)
4 - Moderately high: Qty = 2 (16.667%)
5 - Medium: Qty = 2 (16.667%)
6 - Low: Qty = 1 (8.333%)
7 - Slight: Qty = 0 (0%)
8 - Very slight: Qty = 0 (0%)
9 - Remote: Qty = 0 (0%)
10 - Almost impossible: Qty = 0 (0%)
Not Assigned: Qty = 0 (0%)

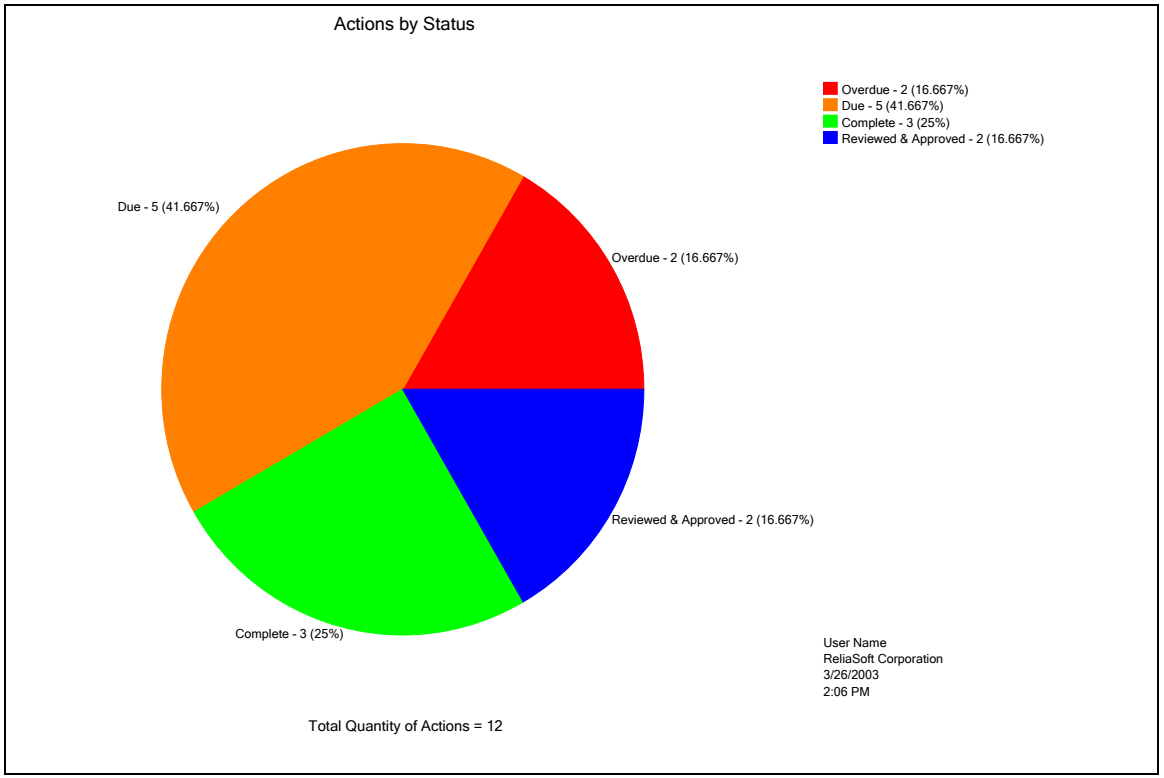
Actual and Estimated Action Costs (1 - 5), Ranked by Actual Cost



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A

Actual and Estimated Action Costs (1 - 5), Ranked by Estimated Cost
1: Act Cost = 275, Est Cost = 300 - Redesign (Item: 1000 - System A)
2: Act Cost = 145, Est Cost = 150 - Revise design geometry (Item: 1000 - System A)
3: Act Cost = 105, Est Cost = 125 - Conduct design of experiments (Item: 1000 - System A)
4: Act Cost = 95, Est Cost = 100 - Revise material specification (Item: 1000 - System A)
5: Act Cost = 50, Est Cost = 100 - Revise design tolerances (Item: 1000 - System A)



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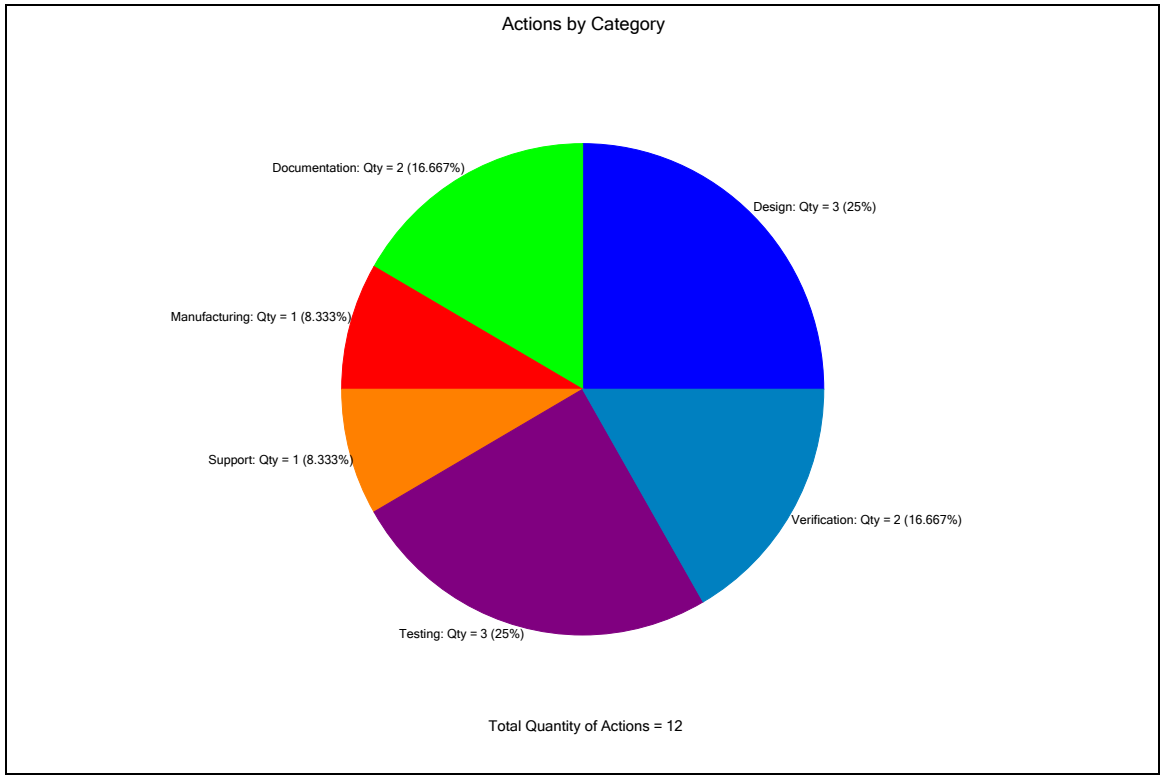
Project: Charts Data

Selected Items:
1000 - System A



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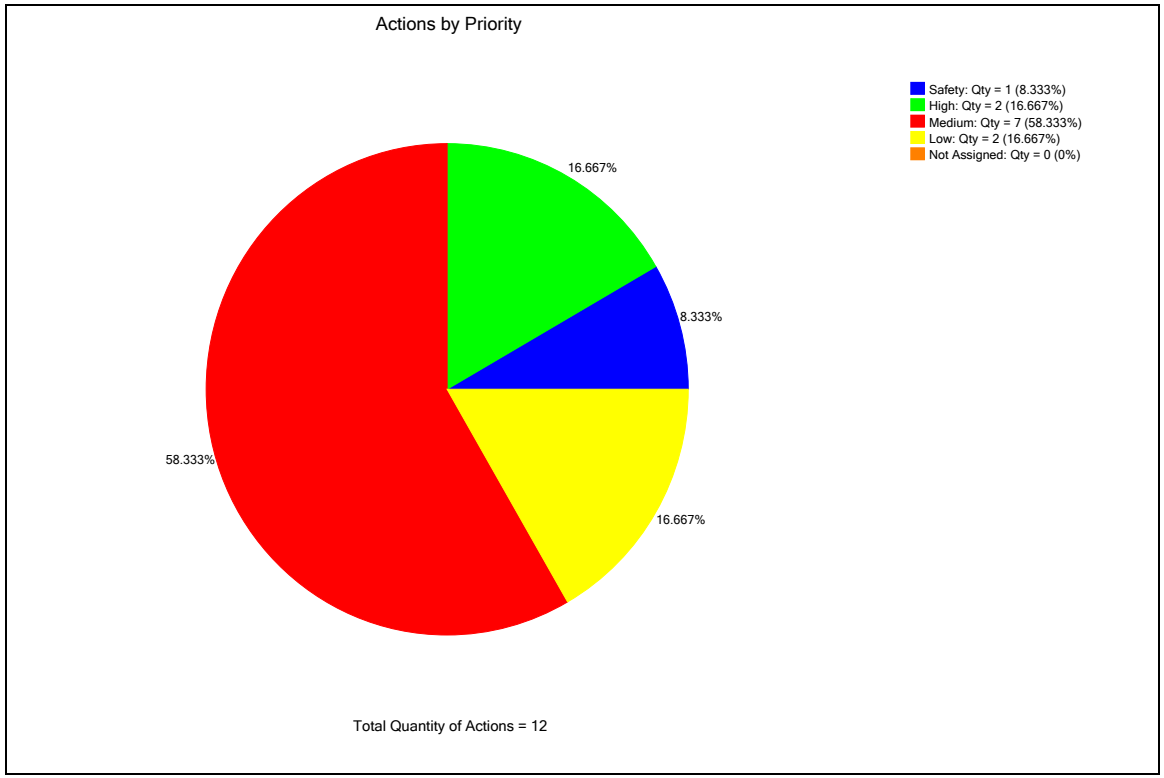
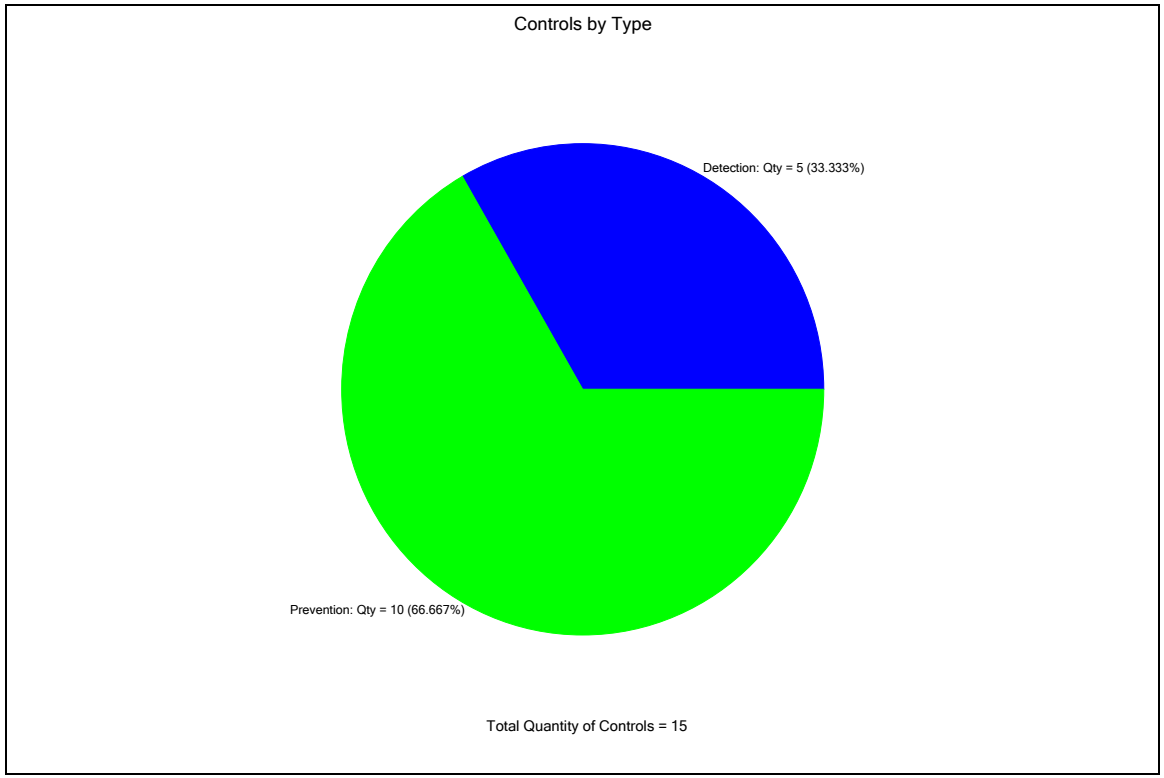
Project: Charts Data

Selected Items:
1000 - System A



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A



XFMEA Database: C:/Xfmea/Examples/Xfmea Demo.rsf
Project: Charts Data

Selected Items:
1000 - System A