

Data Storytelling & Expectations

Jamal Madni

CECS 445

Lecture 19: April 29th, 2021



Project Artifacts – Zip File

- **Business Content**
 - Set of All Possible Customers & Selected Customer (w/ Decision Matrix)
 - One-Page Executive Summary on what the product is and what business need it is solving
- **Project Management Content**
 - Schedule (versions 1 – N)
 - Requirements Table w/ Effort Equations (versions 1 – N)
 - Risk Matrix (versions 1 – N)
 - Metrics Table
- **Model Content**
 - Architecture Diagram (versions 1 – N)
- **Construction Content**
 - Source Code
 - Executable Files
 - ReadMe for Executing Software
- **V&V Content**
 - Graph Flow Notations for Each Architecture Module w/ Cyclomatic Complexities
 - Test Case Tables for Each Graph Flow Notation
 - Test Scripts (if applicable)
- **Additional Documents**
 - Complete Set of User Stories
 - User Manual (1-2 pages on how to install/use software)

Metrics Table

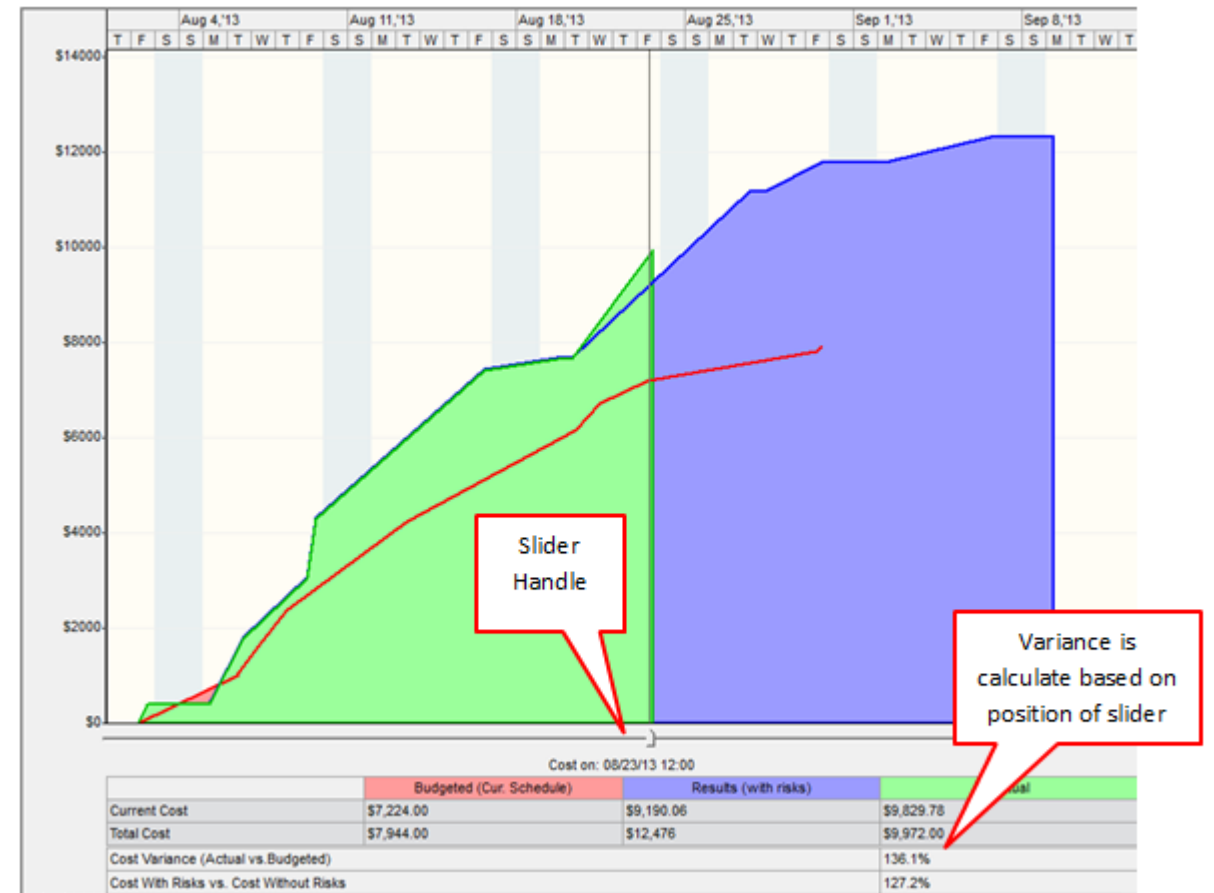
| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week N |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CPI | | | | | | | | | |
| RCM | | | | | | | | | |
| Error Density | | | | | | | | | |
| MTBF | | | | | | | | | |
| MTTF | | | | | | | | | |
| AVAIL. | | | | | | | | | |
| SMI | | | | | | | | | |

Presentations

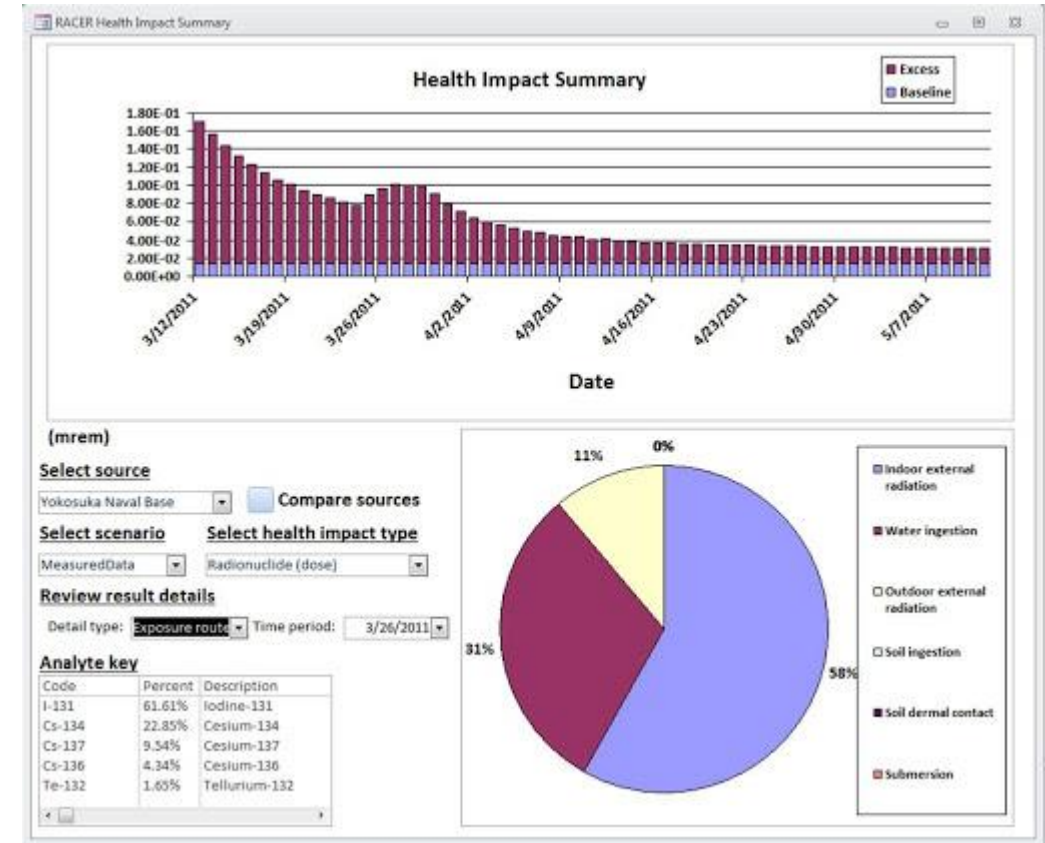
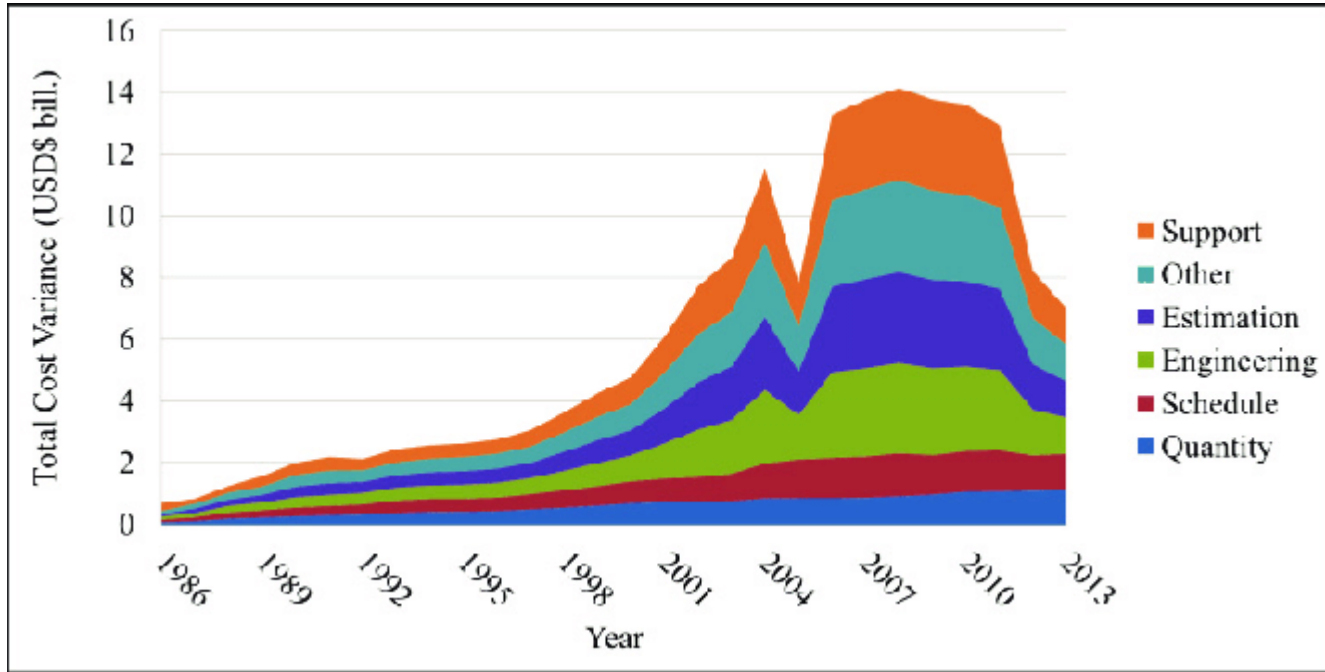
- Why your customer? (1 mins)
- Why your product? (2 mins)
- How did you get to the finish? (4 mins)
- What did you learn for next time? (3 mins)
- Show me what you've done. (5 mins)

How Did You Get To The Finish?

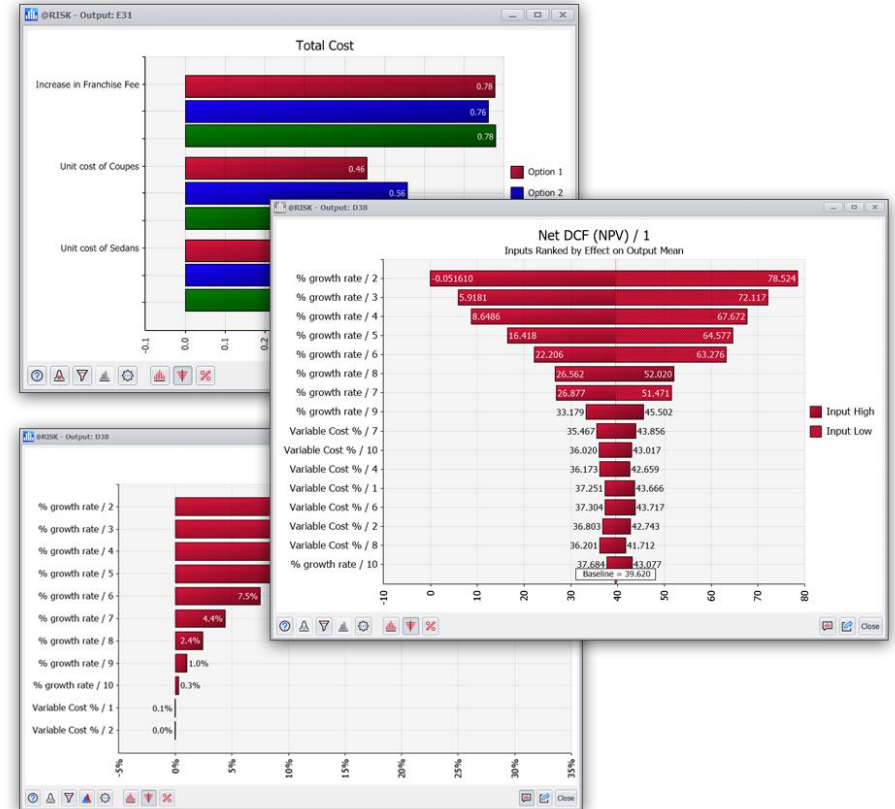
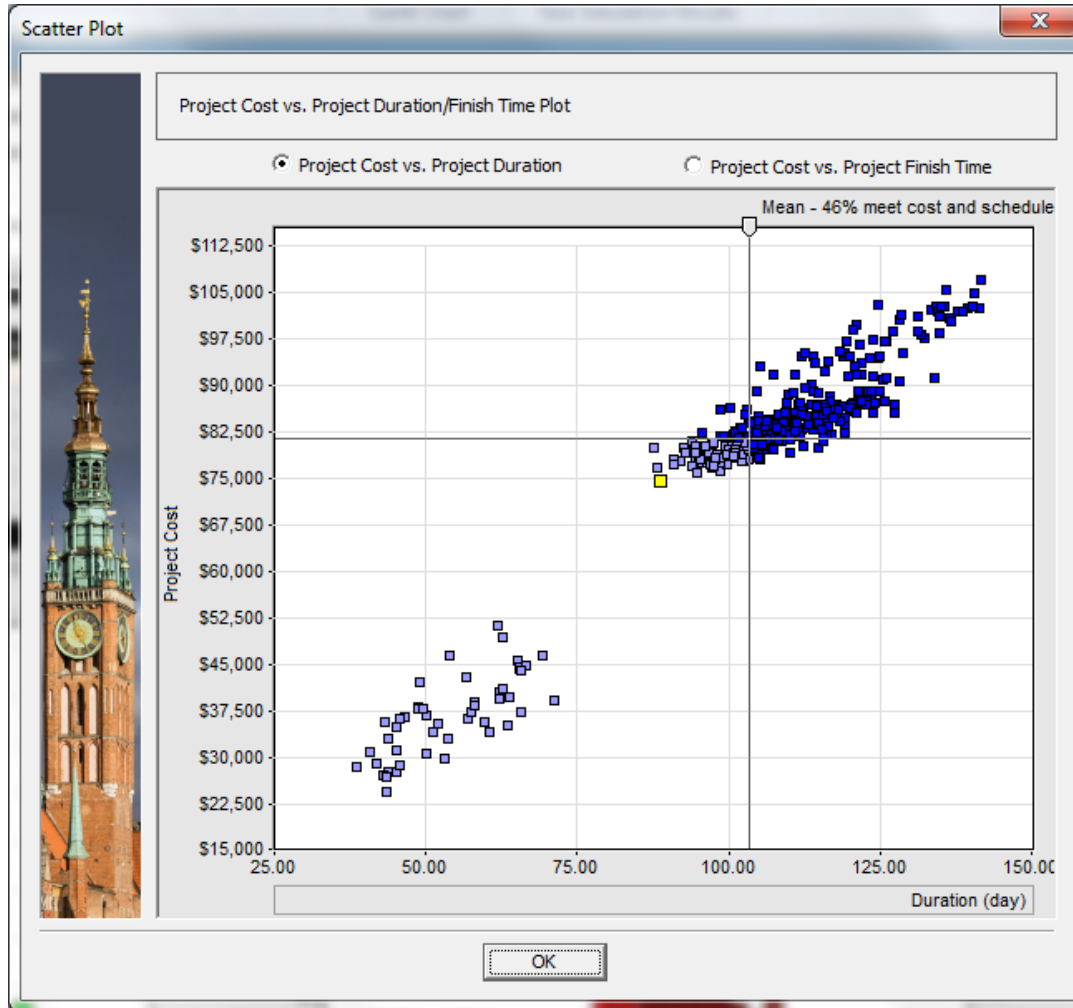
- CPI vs. Time
- RCM vs. Time
- Error Density vs. Time
- SMI vs. Time
- Availability vs. Time
- Risks Per Requirement Type
- CPI Per Requirement Type
- Error Density Per Requirement Type
- Availability Per Risk
- Clustering:
 - Types of Requirements (based on complexity, time, etc.)
 - Types of Risks (based on complexity, time, etc.)
- Regression Analysis:
 - $CPI = f(\text{Requirement, Developer, Time, etc.})$



Types of Visualizations

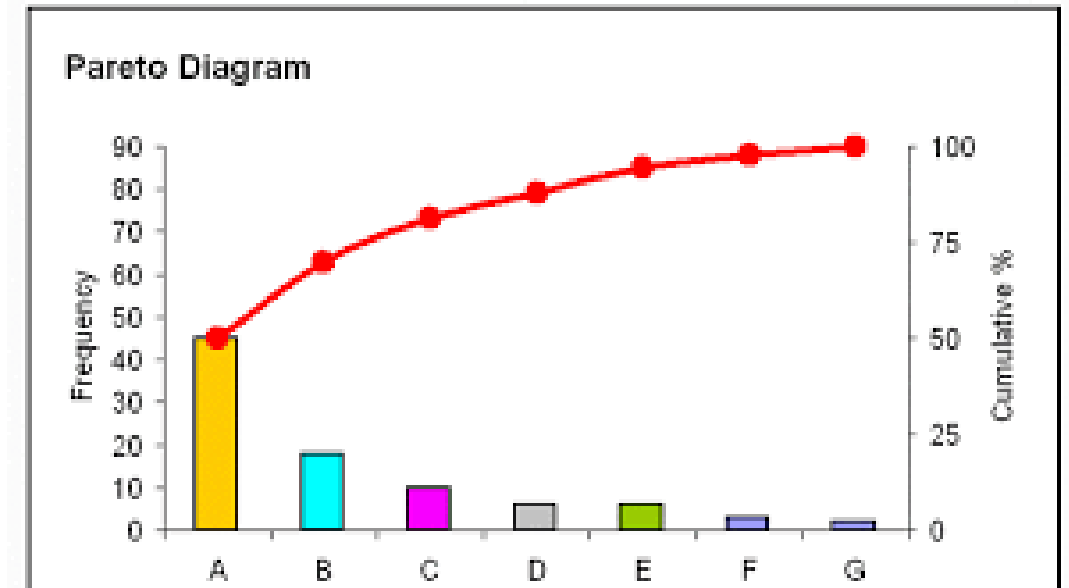


Types of Visualizations



Types of Visualizations

| LIKELIHOOD ↓ | SEVERITY → | | |
|--------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 |
| 1 | LOW - 1 - | LOW - 2 - | MEDIUM - 3 - |
| 2 | LOW - 2 - | MEDIUM - 4 - | HIGH - 6 - |
| 3 | MEDIUM - 3 - | HIGH - 6 - | HIGH - 9 - |



What Did You Learn for Next Time?

- Top 3-5 Lessons Learned
- Evidence Based
 - Data-Driven
 - Conversation-Driven (i.e., Customer Quotes)
- SMART
 - Specific
 - Measurable
 - Achievable
 - Realistic
 - Time-Related (or Resource Related)

Presentation Style

- Stories
- Humor
- Questions
- “Made You Think”
- Energy