VHA Project through Quality Companion

Team 2 -

Shiyun Han, Abhishek Goswami, Yuchen Guo, Guowei Hou, Navya Sree Peddu, Mahmoud Hamwi

Beginning A Project

Adding Team Members

Creating Financial Data

Selecting tools from the Roadmap
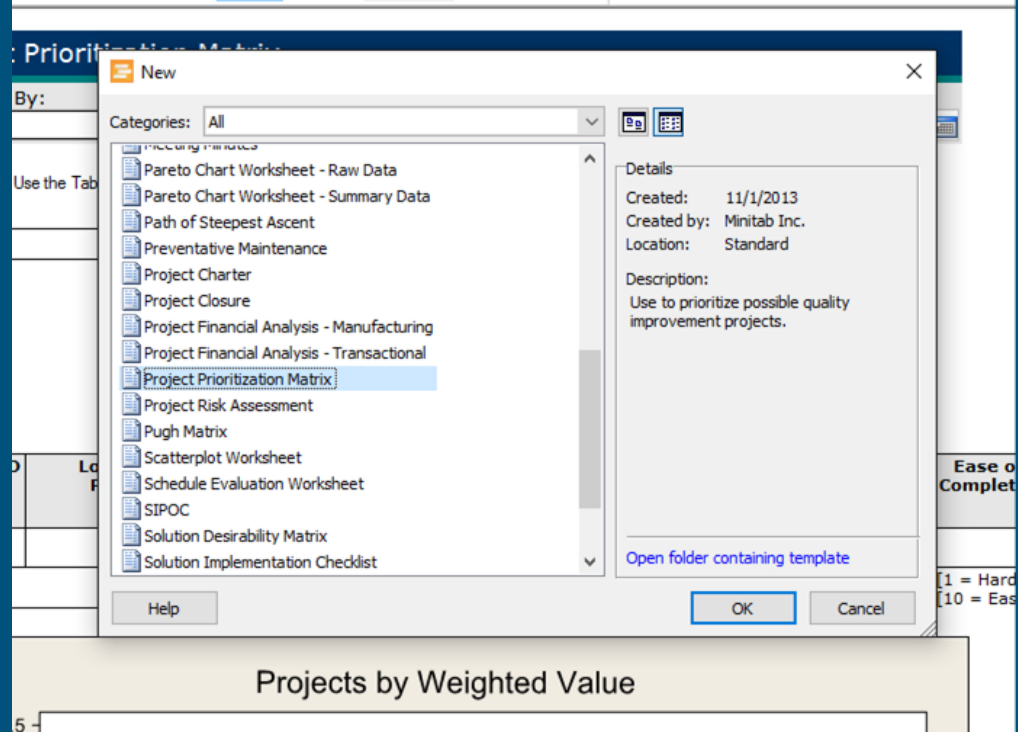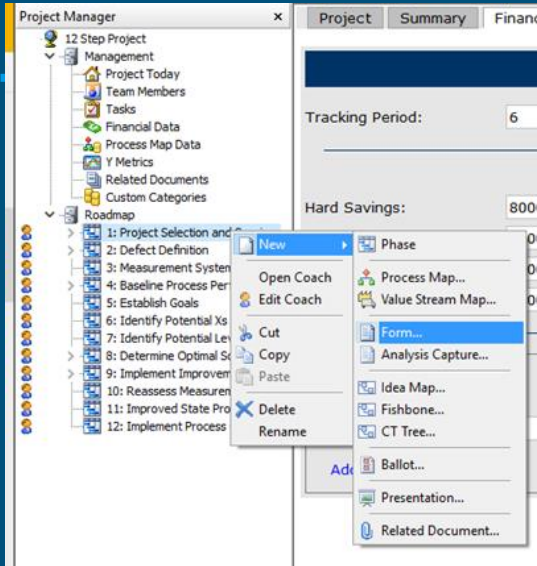
Project Prioritization Matrix
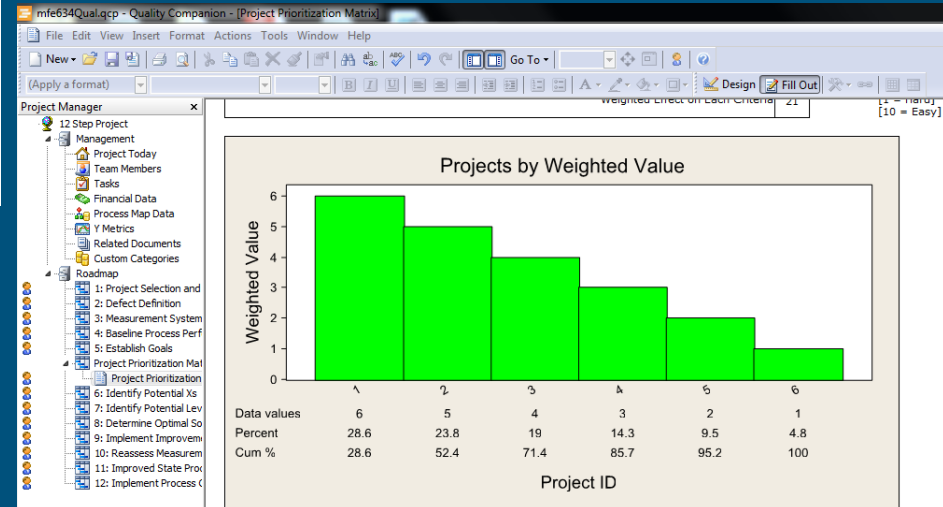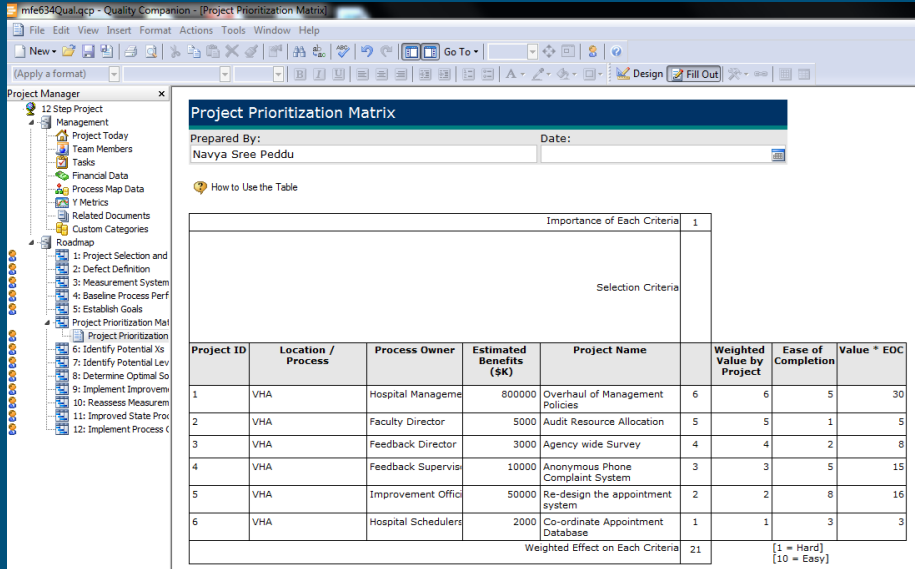
Project Prioritization cont.
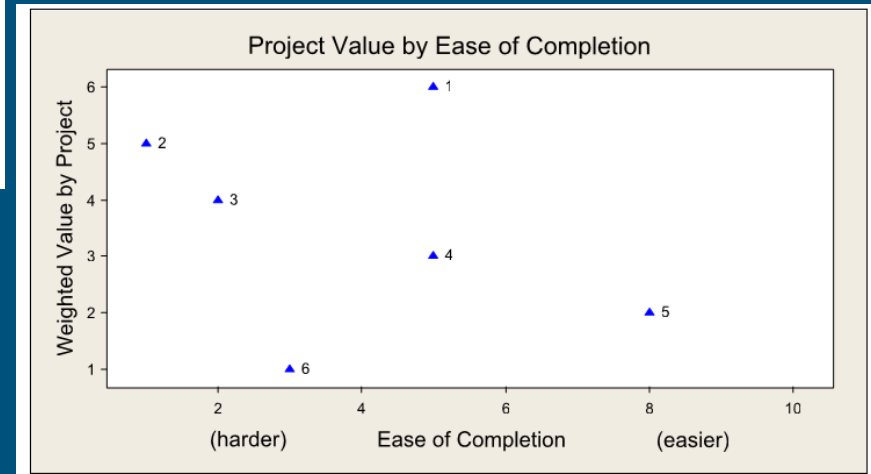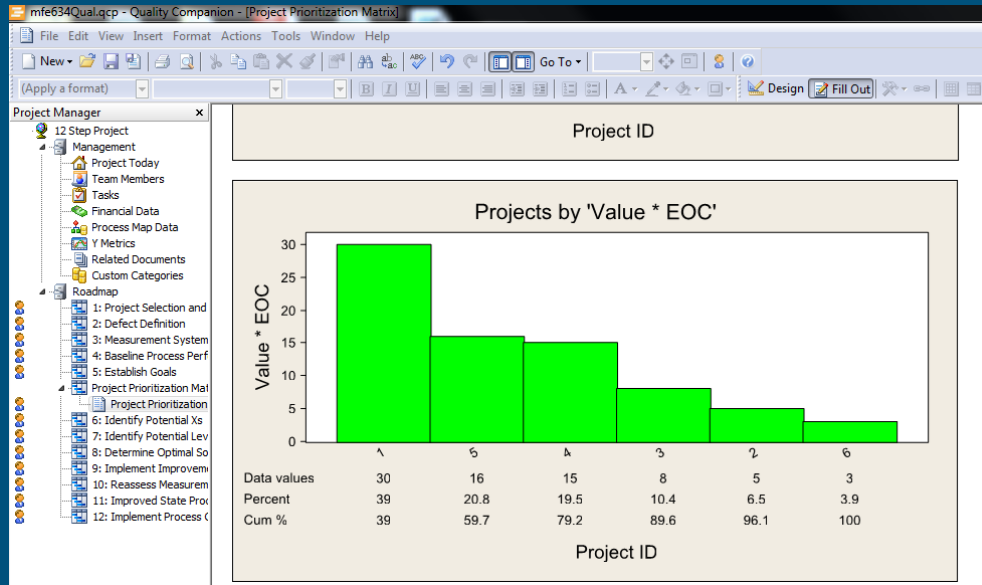
Creating Project Charter After Project Selection

Creating Tasks and Schedule

Defect Definition - Audit Plan

Project Manager ×

- Veterans Administration Healthcare System
  - Management
    - Project Today
    - Team Members
    - Tasks
    - Financial Data
    - Process Map Data
    - Y Metrics
    - Related Documents
    - Custom Categories
  - Roadmap
    - 1: Project Selection and Scoping
      - Overview
    - 2: Defect Definition
      - Audit Plan
      - Fishbone
    - 3: Measurement System Evaluation
    - 4: Baseline Process Performance
    - 5: Establish Goals
    - 6: Identify Potential Xs
    - 7: Identify Potential Leverage Variables
    - 8: Determine Optimal Solution
    - 9: Implement Improvements
    - 10: Reassess Measurement System Evaluation
    - 11: Improved State Process Performance
    - 12: Implement Process Controls

Audit Plan

Project:	Document #:
Veterans Administration Healthcare System	25 A.S.

Location:	Revision:
Syracuse, NY	0

Process Owner:	Revision Date:
Team 2	

Prepared By:	Approved By:	Date:
Abhishek Gowami	Lucy Han	4/5/2016

The Audits Table

When establishing a plan for a single audit, which may check multiple items/criteria, complete a row for each audit item/criteria using the same audit number. The audit number is typically obtained from the auditing function.

Frequency: How often the audit should be performed. For example, Perform an audit every 4 weeks, Perform an audit every 2000 cycles, Randomly once every three months.

Description/Scope: The item(s) you are auditing. For example, Operator training or SOP manuals.

Criteria: The standards which will be used to gauge whether the audit passes or fails. For example, "Has the operator been trained using the online training system and have the records of the training been posted to the training database?" or "Is the SOP manual up to date and placed at the workstation in clear view of the operator?"

Location of Data: The location of supporting documents or data for the audit criteria. For example, H:\Server1\Training Database or L:\Procedures\Master SOP Files.

Reference: Any additional materials used for the audit item/criteria. For example, Online training materials or Master SOP files.

Creating the Fishbone Diagram
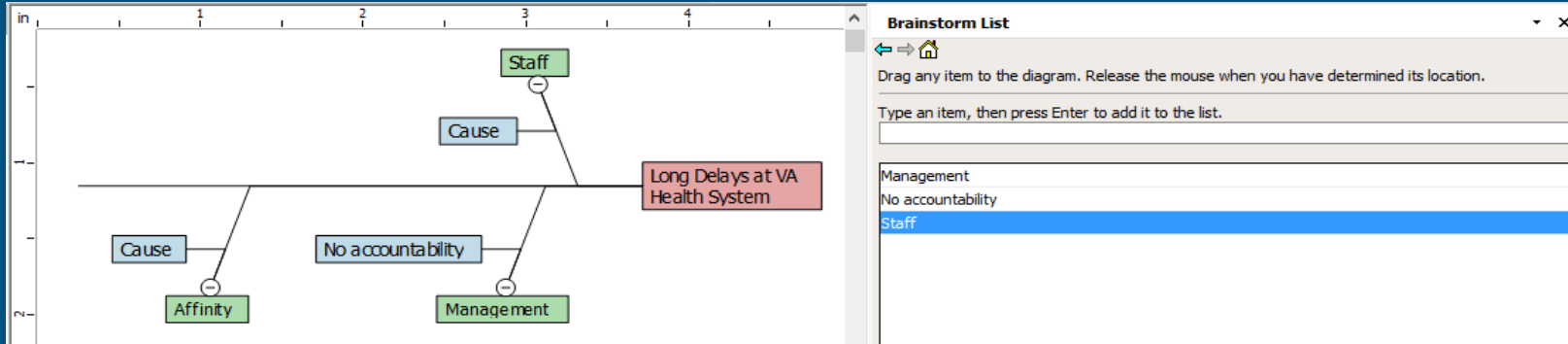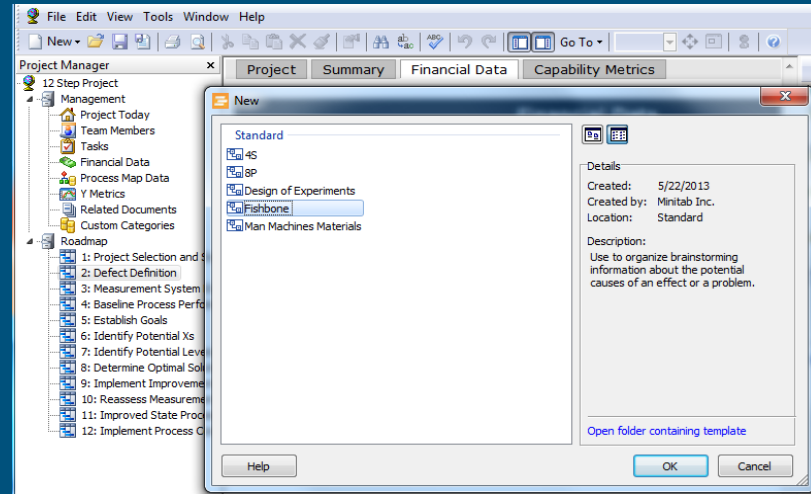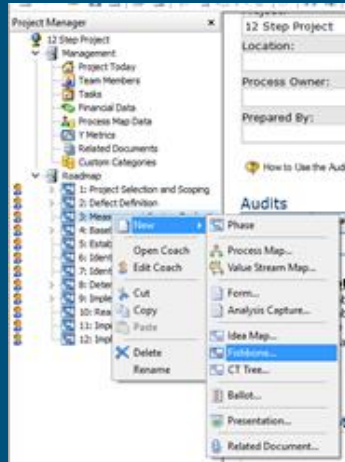
Fishbone Diagram cont.
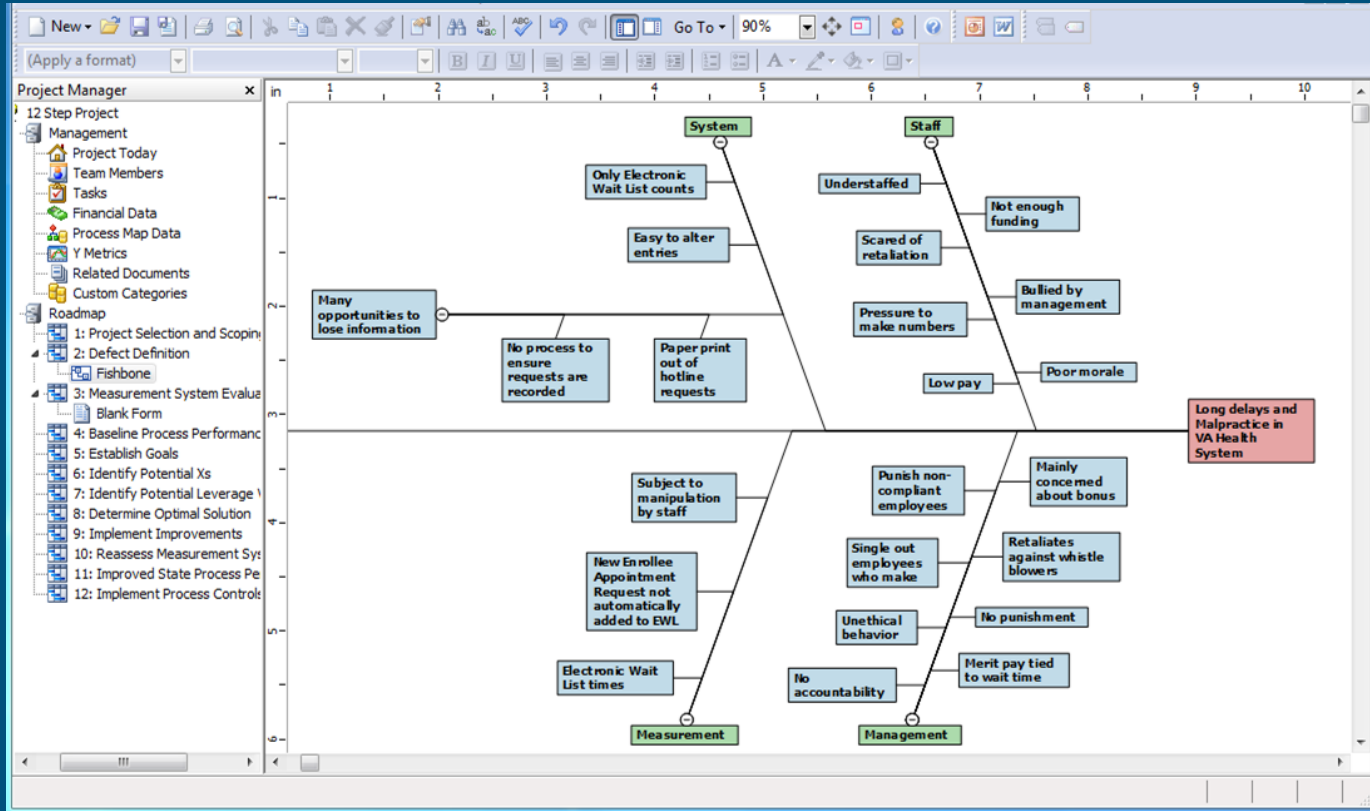
Process Flow Chart

Creating Value Stream Map

Value Stream Map cont.

Capability Analysis

Capability Analysis - Cont.

Output

PPM LT (Expected): `3.4` Ppk:
(Expected Overall DPMO)

PPM LT (Observed): `600000` Pp:
(Actual Overall DPMO)

Graphical (Process Capability):

Process Capability Report for Wait Time

Process Data	
LSL	0
Target	*
USL	14
Sample Mean	14.7993
Sample N	50
StDev(Overall)	5.10412
StDev(Within)	5.13022

— Overall
– – Within

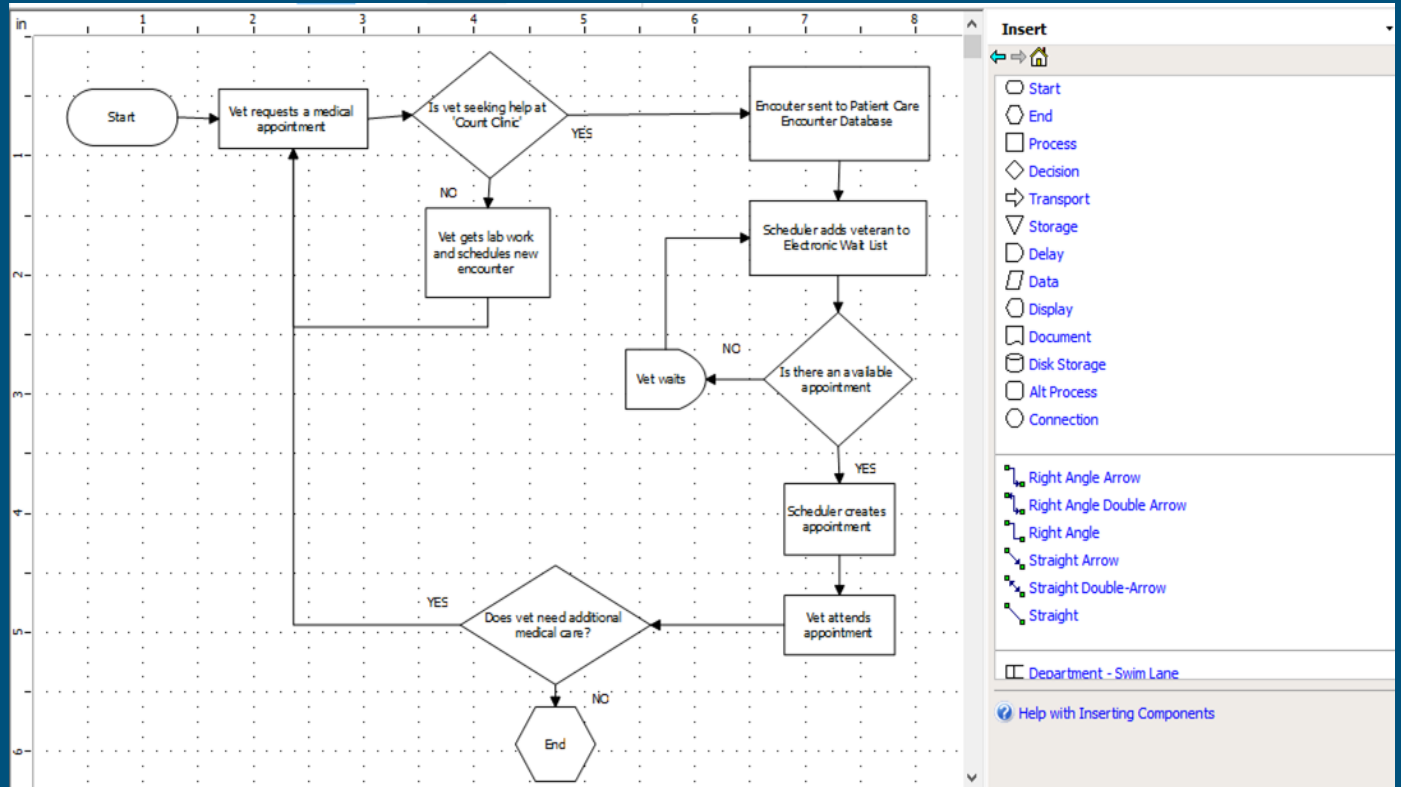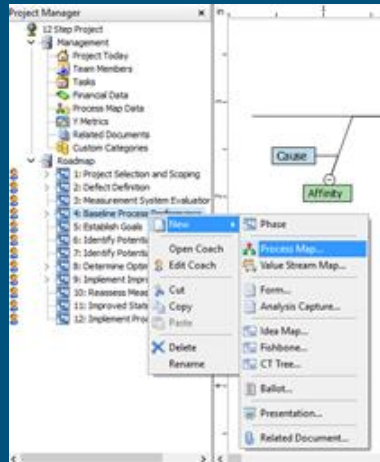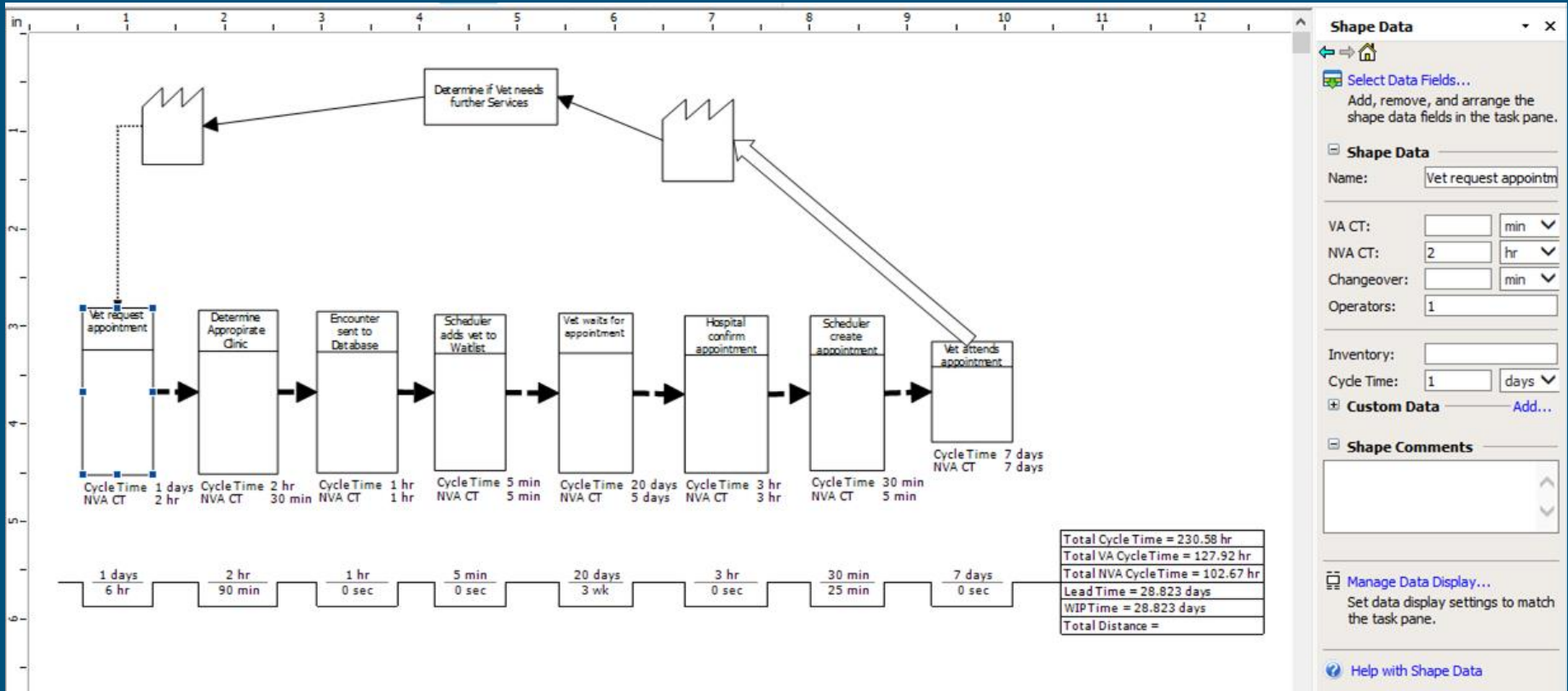| Overall Capability	
Pp	0.46
PPL	0.97
PPU	-0.05
Ppk	-0.05
Cpm	*

Potential (Within) Capability	
Cp	0.45
CPL	0.96
CPU	-0.05
Cpk	-0.05

Performance	Observed	Expected Overall	Expected Within
PPM < LSL	0.00	1868.86	1958.72
PPM > USL	600000.00	562221.74	561907.68
PPM Total	600000.00	564090.60	563866.40

Conclusion

Observations:

- The process capability analysis shows that the process is not capable.
- Other facilities in different states should be used for benchmarking.
- Management overhaul is required to improve the scheduling process and reduce waiting times.

Gauge RR

Project Manager ✕

VHA waiting time gauge R&R
- Management
  - Project Today
  - Team Members
  - Tasks
  - Financial Data
  - Process Map Data
  - Y Metrics
  - Related Documents
  - Custom Categories
- Roadmap
  - 1: Project Selection and Scoping
  - 2: Defect Definition
  - 3: Measurement System Evaluation
    - Gage R&R Study (Crossed)
  - 4: Baseline Process Performance
    - Analysis capture
    - Capability Analysis (Nonnormal) 1
    - Value Stream Map
  - 5: Establish Goals
    - Project Prioritization Matrix
  - 6: Identify Potential Xs
  - 7: Identify Potential Leverage Variables
  - 8: Determine Optimal Solution
  - 9: Implement Improvements
  - 10: Reassess Measurement System Evaluation
  - 11: Improved State Process Performance
  - 12: Implement Process Controls

Gage R&R Study (Crossed)

Minitab: Stat > Quality Tools > Gage Study > Gage R&R Study (Crossed)

Project:
VHA waiting time gauge R&R

Project Leader: Lucy Han
Date: 4/4/2016

Input
Variable Description:
Waiting time

Study Parameters
of Samples: 90
# of Appraisers: 3
# of Trials: 3
Randomized? ● Yes ○ No

Appraisers
Name or Identification:

All qualified? ○ Yes ○ No

Inspection Capability
Is there a desire to evaluate the Gage System to determine if it can be safely used to accept/reject output? ● Yes ○ No
If 'Yes', enter the Process Tolerance [USL-LSL] into Minitab - Options.
Process Tolerance: 14-0

Quality of Sample
Does the variation of the selected samples fairly represent the variation of the process? ○ Yes ● No
If 'Yes', explain rationale:
Random sample was generated through minitab.

If 'No', enter a historical or estimated Process Standard Deviation into Minitab - Options.
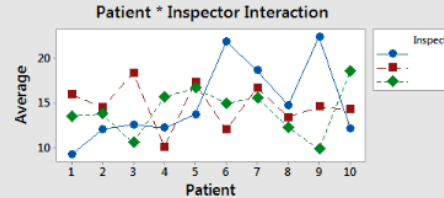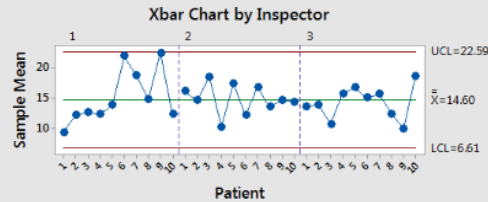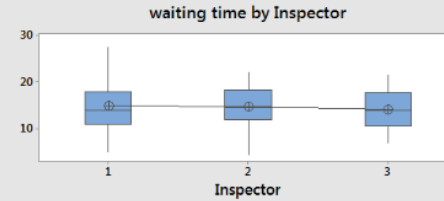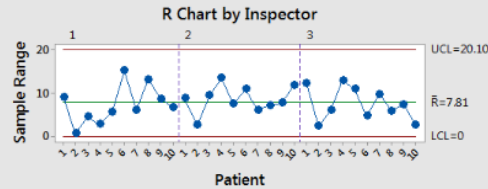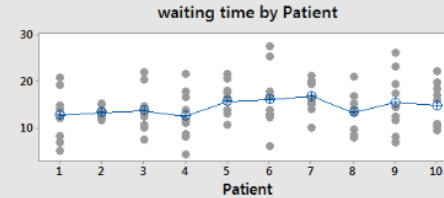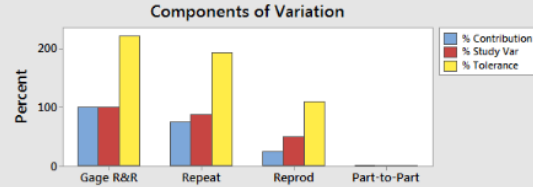Historical Process StDev:

Gauge RR

Graphical (Gage R&R (ANOVA or Xbar-R)) (optional):

Gauge R&R for Waiting time measurmenet VA

Gage name: Data collection system
Date of study: 4/4/16

Reported by: Mahmoud Hamwi
Tolerance:
Misc:

Conclusion

Generally accepted guidelines for evaluating all the % R&R values in the "Total Gage R&R" row (%SV, SV/Toler, and SV/Proc):
<10% Ideal, 10 to 30% Marginal, >30% Not Acceptable

- Gauge variation is too high, the measurement system should be re-evaluated.

Thank You