

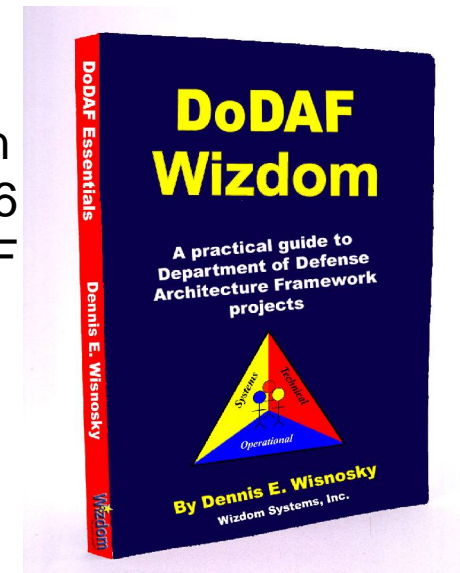
Heading, Altitude and Air Speed *Time, Cost and Quality based KPIs*

Dennis E. Wisnosky

Wisdom Systems, Inc.

Naperville, Illinois

Based on
Chapter 6
of DoDAF
Wisdom

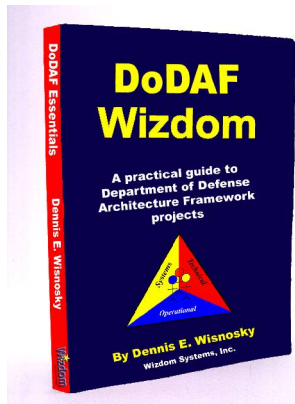


Presentation Outline

- Why Build an EA According to the DoDAF?
- What is the Role of OMB?
- How Does DoDAF Deal with Performance?
- What are Assets and How Are they Managed?
- What are KPIs?
- What are DoDAF KPIs?
- How Do we Build the Business Case from the DoDAF?
- How Will I get What I Want?



Why Build an EA According to the DoDAF?



Improve the Business Process

Integrate Software

Implement Automation

Get What the Customer Wants

You've got to be very careful if you don't know where you're going, because you might not get there.

- Yogi Berra

What Does the Customer Want?



In the 21st Century

“The Department of Defense will be managed in an efficient, business-like manner in which accurate, reliable, and timely financial information, affirmed by clean audit opinions, is available on a routine basis to support informed decision-making at all levels throughout the Department.”

Donald Rumsfeld January 31, 2002.”

“Over time, metrics will become the analytical underpinning to ascertain whether the appropriate allocation of resources exists.” - Management Initiative Decision (MID) 913

CCA is the Forcing Function!



CCA & GPRA

Clinger Cohen Act forces organizations to ask what has come to be known as the “three pesky questions:”

“Is the function that will be performed tied directly to our agency mission?”

“Could another agency, government or private entity do the job better?” – Think A-7

“Have our processes been re-engineered to give the best performance at the lowest cost?”

In Other Words! How is the Business Performing?



What is Performance to the DoDAF?


When the DoDAF talks about performance, it means technical performance in terms that seek to have the right nodes talk and that they talk at the right time. The DoDAF uses Performance Parameters to measure such factors as Internodal Connectivity, Information Assurance, Timeliness, Periodicity and Security. The Operational Exchange Information Table OV-4 and the Systems Data Exchange Matrix (SV-6) DoDAF products show the relationships of organization and system Performance Parameters . The Performance Parameter values are included in the tables of the Operational Information Exchange Table (OV-3)

However!



OMB Wants BCA

Business Case Analysis (BCA) OMB Exhibit 300 Capital Asset Plan & Business Case for each Major Project

- Major Project **Goals**
 - **Costs**
 - **Performance**
 - Improvements Planned
 - Adherence to Gov't Policy & Objectives
- AS-IS and TO-BE
- 

What Does this Mean to us Simple Engineers?



The Goal

Consider:

The Goal is to maximize performance, that is, optimally manage (AS-IS) tangible and intangible assets according to a long-range (TO-BE) plan while achieving continuous improvement (Transformation).

Since assets are all that an organization (men and women) have, this is all that the Goal can be.

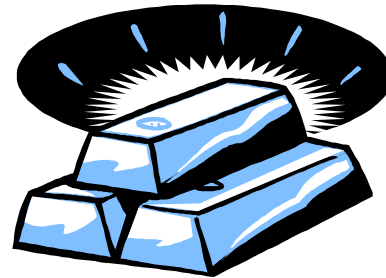
What are Examples of Assets?



Assets

- Tangible – Easy to see, Easy to work with

- Buildings
- Machines
- Systems



- Intangible – Much more ephemeral

- People and Process related
- Many Dependencies
- More Qualitative in nature



Look for Asset Performance Indicators



What are Asset Performance Indicators?

Choose to fit your purpose!



Purpose is: Determine the best performer!

Sometimes there is Doubt!

Performance Indicators

Look for tie breakable metrics!



How Complex can this be?



Asset Management Challenge



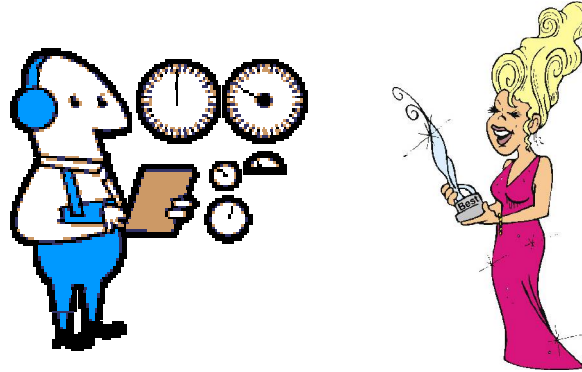
How Does the Pilot Manage all of These Assets?

Asset Management Challenge



What Makes These Indicators Key?

Key Performance Indicators (KPI)



No Doubt About it!

KPI's Leave No Doubt About It

What Makes These Indicators Key?



Airspeed Altitude Heading

Asset Management Challenge



How Hard is This?

Smarter than the Average Dog



OK, What are our Business KPI's?



The BC KPIs



How does this Relate to the DoDAF?



Process Analysis

The OV-5 and OV-6 Products gather the data for analysis:

Cost: Activity-based costing, functional economic analysis

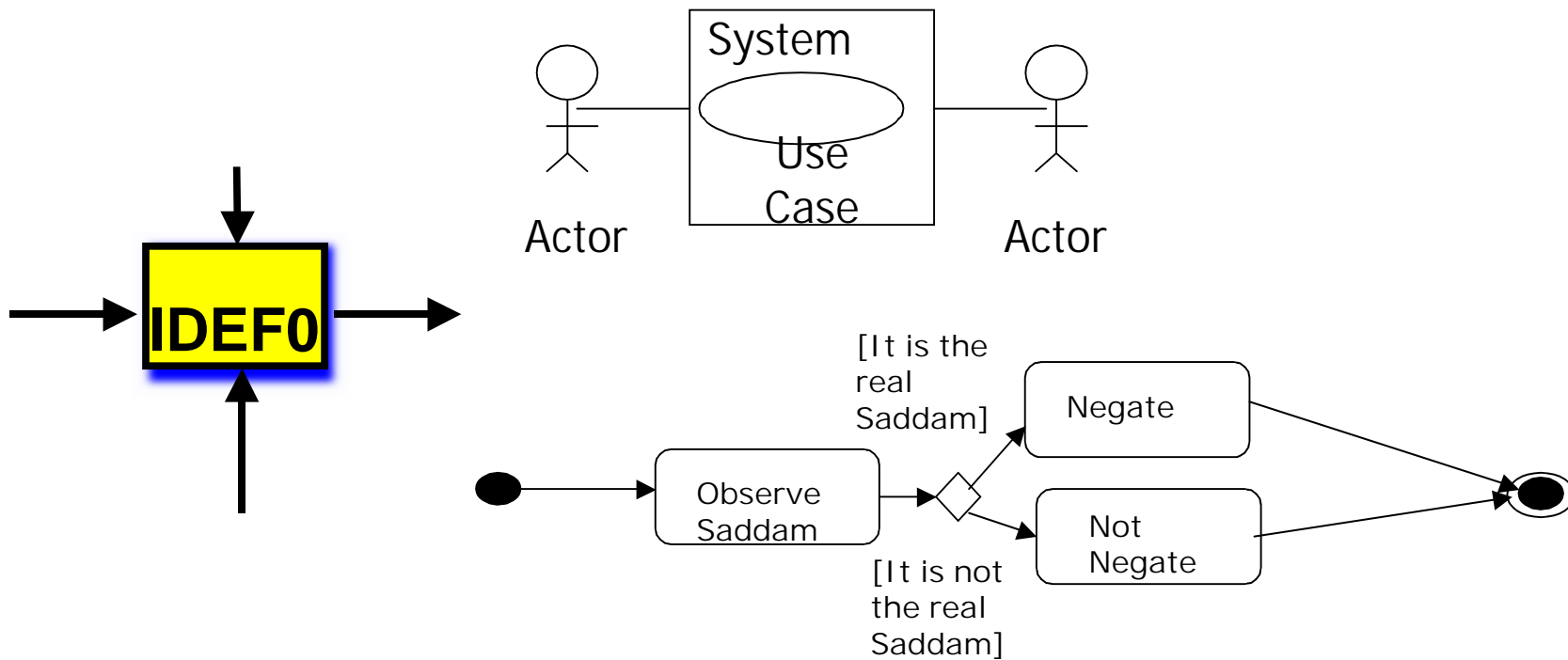
Time: Timeline, cycle time, run time, turn-around times, sequence, hierarchy, dependencies.

Quality: Quality metrics, comparisons between past, present, and future, TQM, CQI.

Show me the Process



DoDAF OV-5 Choices

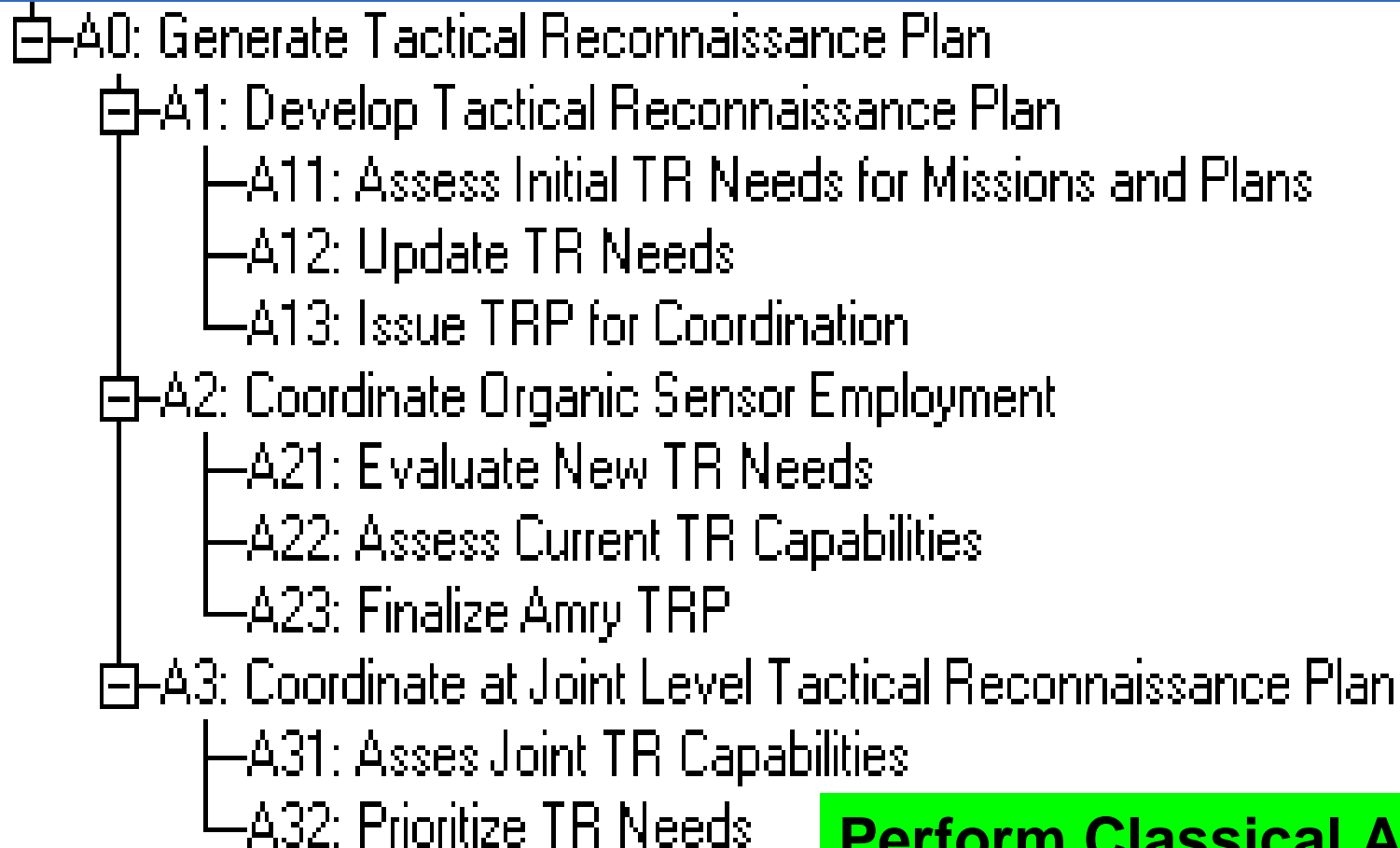


From the Models, Generate your List of Activities



IDEF0 Indented List

A-0: Context Diagram for Generation of Tactical Reconnaissance Plans



Perform Classical ABC



Perform Classical ABC

ABC COST ANALYSIS OUTPUT

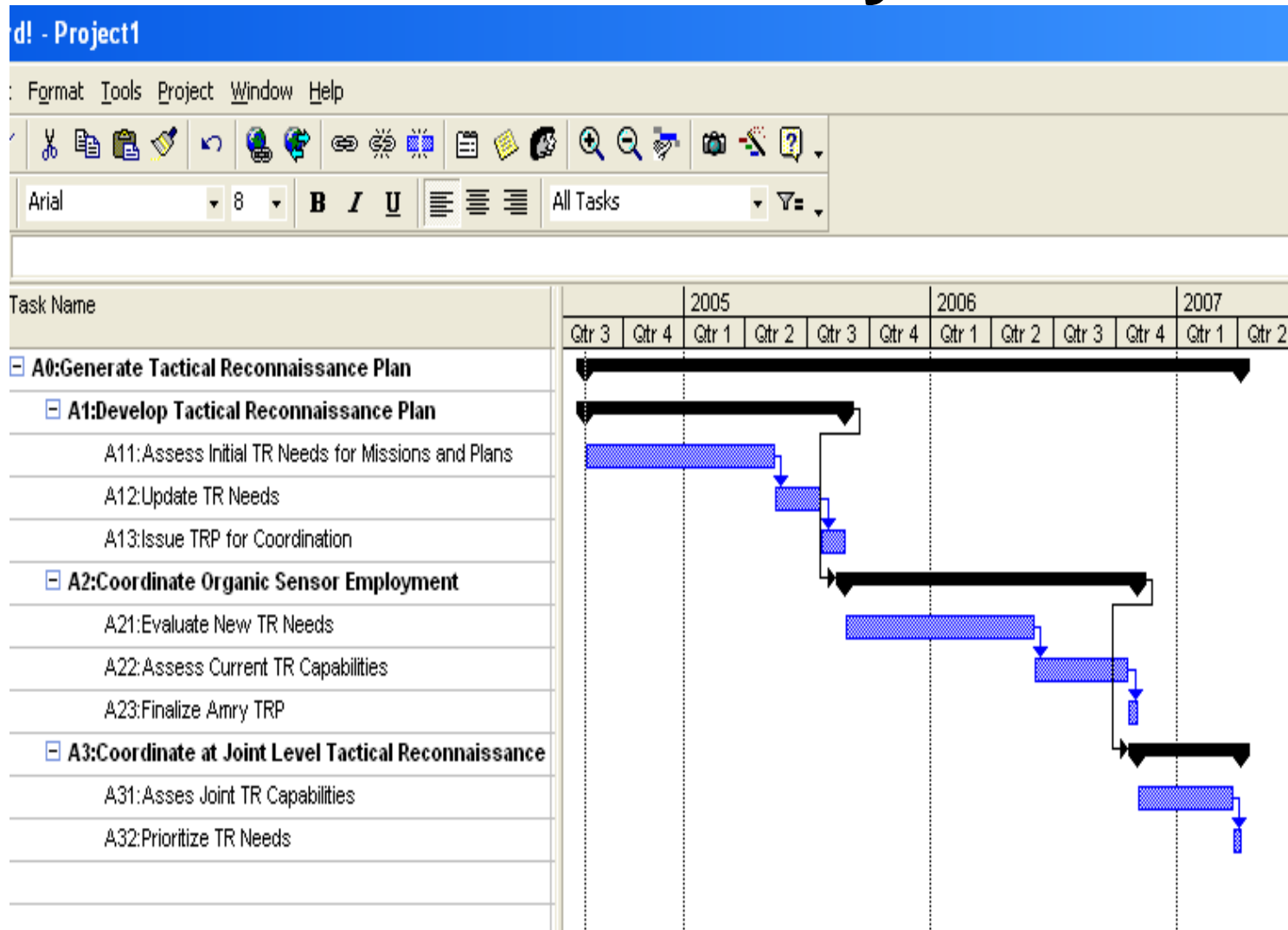
(In Millions of Dollars)

FUNCTIONS	Oversight	GS	Mil	TOTAL
		Labor	Labor	
A0:Generate Tactical Reconnaissance Plan	100600	200	250	101050
A1:Develop Tactical Reconnaissance Plan	35190	60	67.5	35317.5
A11:Assess Initial TR Needs for Missions and Plans	15055	22.5	25	15102.5
A12:Update TR Needs	10105	22.5	25	10152.5
A13:Issue TRP for Coordination	10030	15	17.5	10062.5
A2:Coordinate Organic Sensor Employment	55250	100	125	55475
A21:Evaluate New TR Needs	30070	45	55	30170
A22:Assess Current TR Capabilities	20065	32.5	40	20137.5
A23:Finalize Amry TRP	5115	22.5	30	5167.5
A3:Coordinate at Joint Level Tactical Reconnaissance Plan	10160	40	57.5	10257.5
A31:Asses Joint TR Capabilities	5105	27.5	42.5	5175
A32:Prioritize TR Needs	5055	12.5	15	5082.5

Perform Time Line Analysis



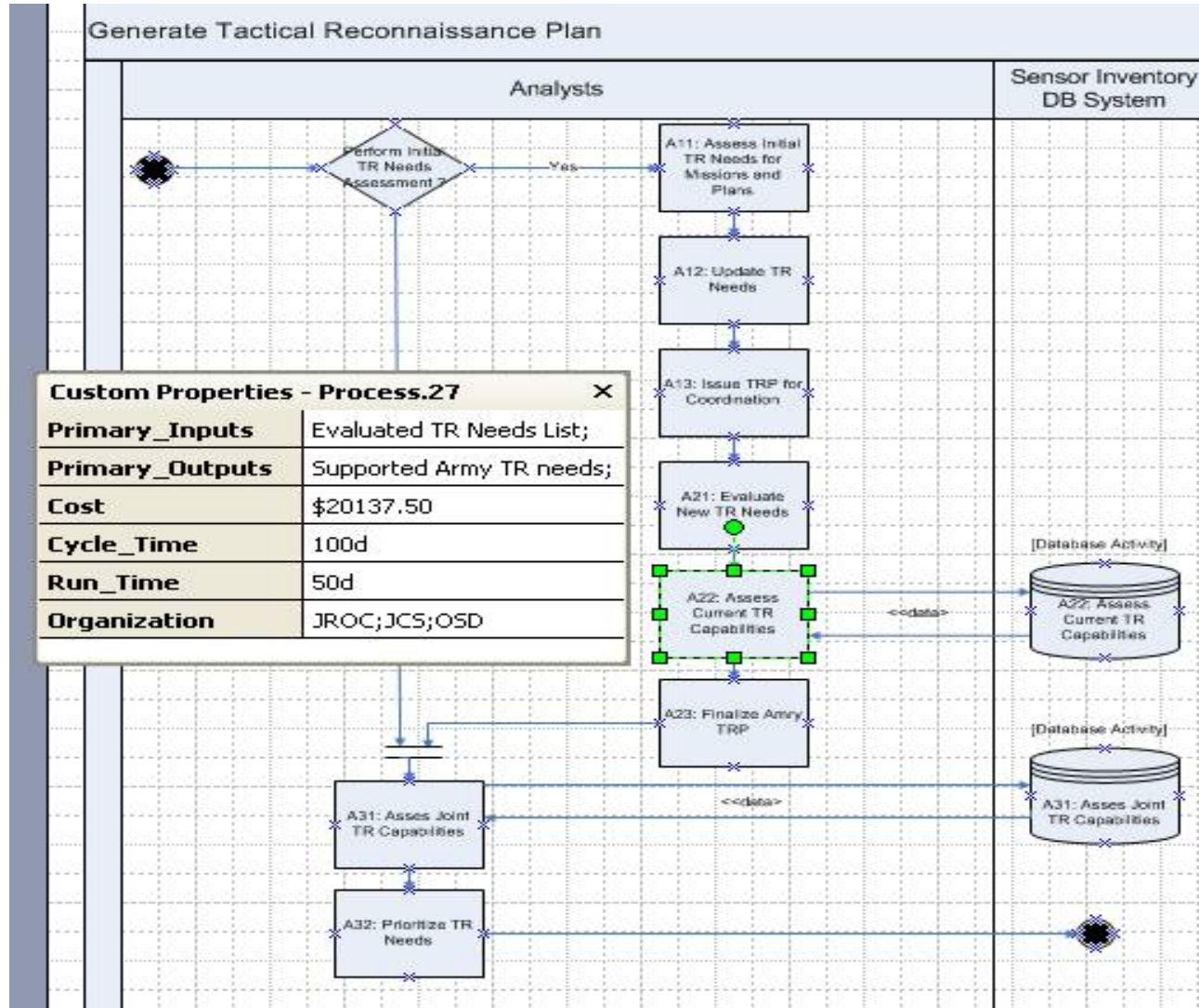
Time Line Analysis



Perform Process Flow Analysis



Process Flow Analysis



Perform Quality Analysis



Quality Analysis

- The process model identifies all activities required for an organization's operation.
- Characteristics are assessed and prioritized using the customer or end user's point of view.
- Business processes are rated by their impact on high priority products and service characteristics.

WHATs vs HOWs

Strong Relationship: *9
Medium Relationship: ○ 3
Weak Relationship: △

L
e
s
s
W
I
P

L
o
w
e
r
R
e
w
o
r
k

		1	2	3	4	
A0 OPERATE PLANT	1					1
A1 ADMINISTER PLANT	2	■	■	■	■	2
A11 MANAGE PLANT	3					3
A12 PROVIDE HUMAN RESOU	4	■	■	■	■	4
A121 PROVIDE EMPLOYME	5					5
A122 MAINTAIN EMPLOYE	6					6
A123 PROVIDE COMPENSA	7					7
A124 PROVIDE TRAINING	8					8
A125 PROVIDE FACILITIES	9					9
A126 PROVIDE LEADERSH	10					10
A13 PROVIDE FINANCIAL I	11					11
A14 OPERATE DATA SYSTEM	12					12
A15 PROVIDE CLERICAL SU	13					13
A2 MANAGE MATERIALS	14	■	■	■	■	14
A21 SUPERVISE MATERIALS	15	■	■	■	■	15
A211 HANDLE DAY TO DA	16					16
A212 REVISE PROCEDURE	17					17
A213 SET SHORT-TERM P	18					18
A22 PLAN & INITIATE PRO	19	■	■	■	■	19
A221 ADMINISTER CONTR	20					20
A222 PLAN RELEASE OF	21					21
A223 INITIATE PROCURE	22					22
A224 VERIFY CURRENT P	23					23
A225 RELEASE ORDERS T	24					24

Integrate Results of C,T,Q



Integrate Cost, Time, Quality

ACTIVITY	COST	CYCLE TIME	RUN TIME	QUALITY
A0:Generate Tactical Reconnaissance Plan	\$101,050			
A1:Develop Tactical Reconnaissance Plan	\$35,317.50	275	115d	8
A11:Assess Initial TR Needs for Missions and Plans	\$15,102.50	200d	100d	3
A12:Update TR Needs	\$10,152.50	50d	5d	2
A13:Issue TRP for Coordination	\$10,062.50	25d	10d	3
A2:Coordinate Organic Sensor Employment	\$55,475	310	80d	8
A21:Evaluate New TR Needs	\$30,170	200d	25d	1
A22:Assess Current TR Capabilities	\$20,137.50	100d	50d	2
A23:Finalize Amry TRP	\$5,167.50	10d	5d	5
A3:Coordinate at Joint Level Tactical Reconnaissance Plan	\$10,257.50	110	55d	3
A31:Asses Joint TR Capabilities	\$5,175	100d	50d	1
A32:Prioritize TR Needs	\$5,082.50	10d	5d	2

Build the Business Case



Business Case Template

EXECUTIVE SUMMARY.....

SITUATIONAL ASSESSMENT (CURRENT STATE) AND PROBLEM STATEMENT

PROJECT DESCRIPTION AND OBJECTIVES.....

SOLUTION DESCRIPTION.....

COST AND BENEFIT ANALYSIS.....

FINANCIAL ASSESSMENT.....

IMPLEMENTATION

TIMELINE.....

CRITICAL ASSUMPTIONS AND RISK ASSESSMENT

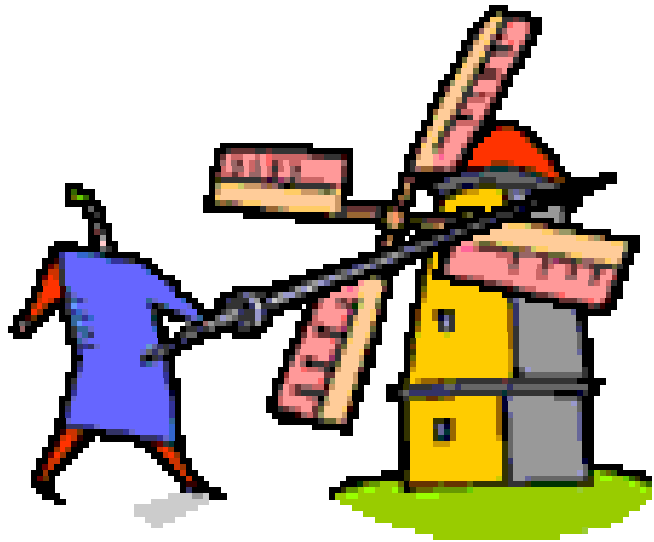
.....

RECOMMENDATIONS.....

And, in Conclusion!



Get What you Want!

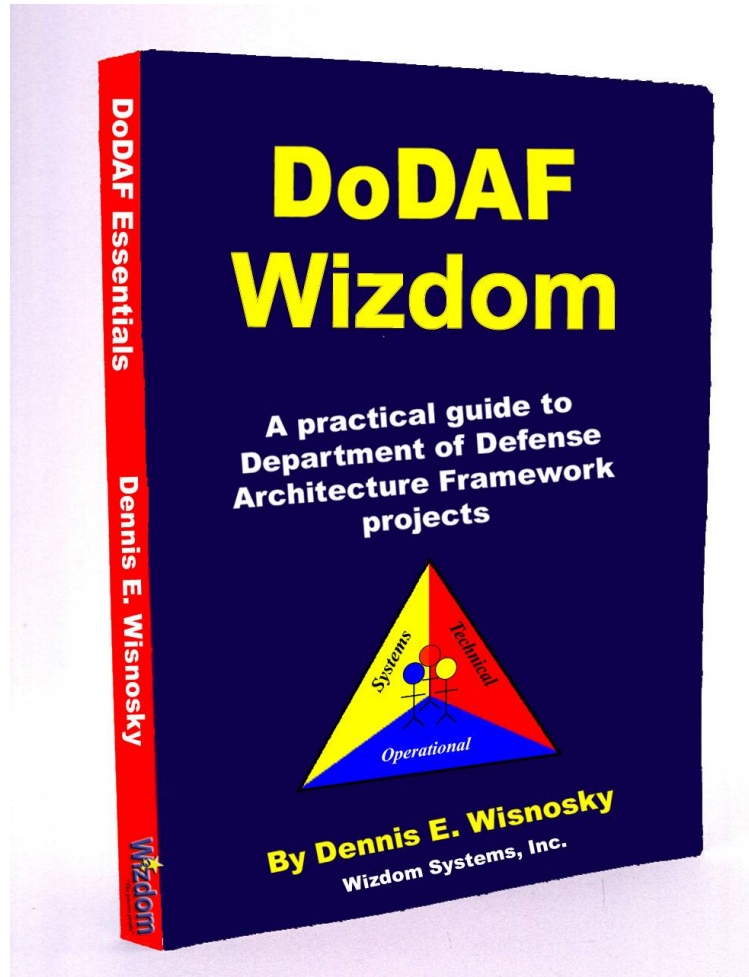


Don't Joust with windmills.
Use the DoDAF Operations
Activity Models to gather data
for quantitative business
analysis.



Plant a stake in the ground
with KPIs for CCA and
GPRA in support of OMB
300 Requirements.





This concludes:
Heading, Altitude and Air
Speed
*Time, Cost and Quality
based KPIs*

Thank You!

