Module 12: The Disposal state

Rev 3.1.3

Objectives

1. To identify the role of systems engineers in the Disposal state of the SLC
2. To identify the nature of the problems they face
3. To identify the tools, methodologies and techniques available to solve those problems
4. To discuss project terminations as the reverse of system development

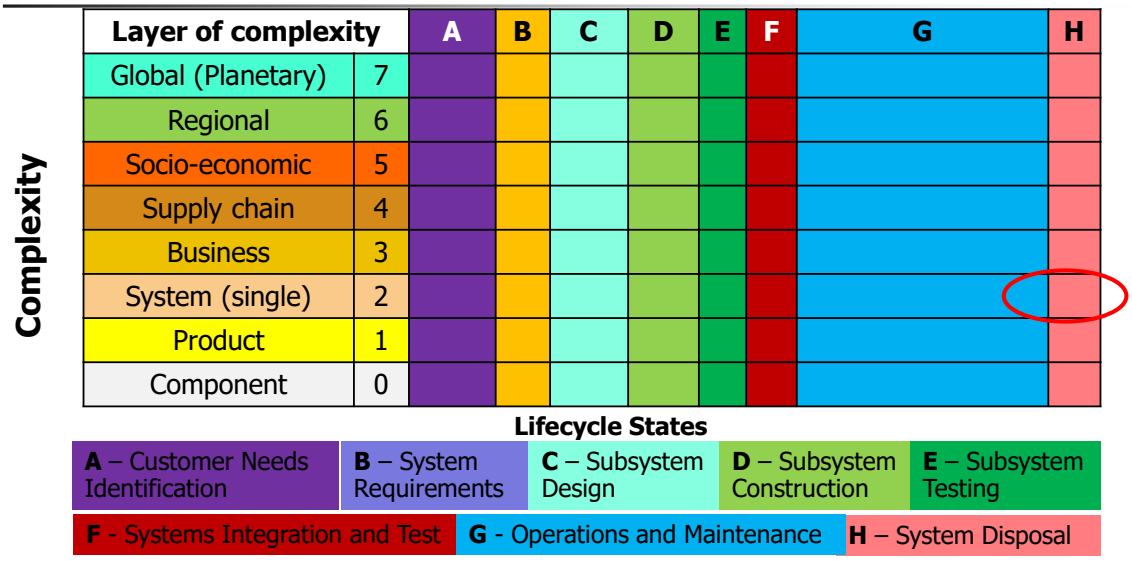
Contents

1. Alternative methods of disposal
2. Considerations for disposal
3. Project terminations and how to handle them effectively

Knowledge

- Lecture
- Reading
  - 1202 SE Chapter 16: The Disposal State
- External sources
  - Not much out there in systems engineering, some information in project management literature
- Exercises

Big Picture



Project terminations

- People leave
  - Phased according to schedule
  - Morale, need a place to go rather then being laid off
- Project records
  - Storage
- Project lessons learned
  - Into accessible database
  - Write-only memories?

Role of systems engineer

- Systems issues pertaining to disposal of systems
  - Contribute to determination of need to dispose of system
    - Result of situation awareness
      - Logistics, performance, etc.
    - Upgrade option not solution of choice
    - Replacement system becomes solution of choice
  - Systems engineering in the disposal state activities

Disposal

- Withdrawal from service
- Takes place when system no longer meets the need of the users
  - Needs have changed, so system no longer needed
  - System can no longer be maintained, so replacement system is to be acquired
    - Obsolescence of components
      - Diminishing Manufacturing Sources and Material Shortages (DMSMS), USA
- Change of state from 'a system' to 'no system'
  - Final change request
- May need to be a project in itself with full set of plans
  - Depending on the system
- All nine systems in the Nine-System Model have to be considered

Options

- Abandon
  - Walk away and leave in place
- Dump
  - Transport to a facility that can salvage or store components
- Sell
  - Find a third party who will purchase the system
- Contractor
  - Pay someone to dispose of system
    - outsource problem
- Others
  - Not mentioned above, combinations, etc.

Planning issues – system dependent

- Timing
  - to coincide with replacement system if any
- Environmental constraints
  - Hazardous materials, etc.
- Personnel issues
  - What will happen to redundant personnel
  - Impact on local communities
- Spares and support
  - What is their disposition?
- Classified aspects
  - Understanding of technology

Tools

- All the tools from the previous states

Exercise 12-11

1. You are the department head at a university
2. You need to dispose of a classroom because a course has been retired
3. Plan what you would do to dispose of the classroom and its contents
4. Prepare a <5 minute presentation containing:
    1. This slide and version number of session
    2. Your assumptions
    3. The formulated problem per COPS problem formulation template
    4. A compliance matrix
    5. The contents of the plan
    6. The assumptions underlying the approach
    7. Lessons learned from the exercise
5. Save as a PowerPoint file in format Exercise12-11-abcd.ppt(x)
6. Post in Asynchronous group

Exercise 12-12

1. Plan what you would do to dispose of the HEADS once it becomes obsolete
2. Prepare a <5 minute presentation containing:
    1. This slide and version number of session
    2. Your assumptions
    3. The formulated problem per COPS problem formulation template
    4. A compliance matrix
    5. The contents of the plan
    6. The assumptions underlying the approach
    7. Lessons learned from the exercise
5. Save as a PowerPoint file in format Exercise12-12-abcd.ppt(x)
6. Email or post in Asynchronous group as instructed

Knowledge reading exercise 12-13

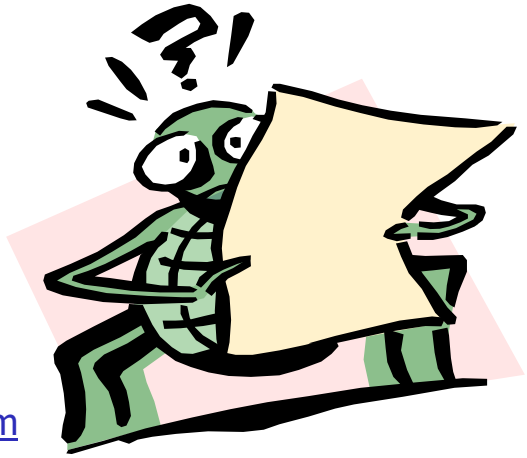
1. Prepare a brief on two main points in reading 1202 (< 5min):
2. Presentation to contain
    1. Formulated problem per COPS problem formulation template
    2. A summary of the content of the reading (<1 minute)
    3. The compliance matrix
    4. This slide and version number of session
    5. The main points (<1 minute)
    6. The two briefings
    7. Reflections and comments on reading (<2 minute)
    8. Comparisons of content with other readings and external knowledge
    9. Why you think the reading was assigned to the module
    10. Lessons learned from module and source of learning e.g. readings, exercise, experience, etc. (<2 minutes)
3. Save as a PowerPoint file as Exercise12-13-abcd.pptx
4. Email of post in Asynchronous group as instructed

Meeting the Objectives

1. Identified the role of systems engineers in the Disposal State of the SLC
2. Identified the nature of the problems they face
3. Identified the tools, methodologies and techniques available to solve those problems
4. Discussed project terminations as the reverse of system development.

Any questions ?

1. Best
2. Worst
3. Missing



Email: beyondsystemsthinking@yahoo.com
Subject: <class title> BWM Session #