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# The Organization and the Work Breakdown Structure

## Responsibility and Accountability

Prepared by Don Ardiel

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Responsibility Assignment Matrix

## Lesson Summary

- In this presentation, we will:
  - Provide an overview of the process of assigning work to organizational units
  - Discuss types of project organizations, at a high level
  - Explores tools to relate work to responsibility and accountability

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Responsibility Assignment Matrix

## Defining the Project

Step 1: Defining the Project Scope

Step 2: Creating the Work Breakdown Structure

Step 3: Integrating the WBS with the Organization ←

Step 4: Coding the WBS for the Information System

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Responsibility Assignment Matrix

### A Relationship of Work to Responsibility

OBS

| WBS            | Functional Unit 1 | Functional Unit 2 | Functional Unit 3 | Functional Unit 4 |
|----------------|-------------------|-------------------|-------------------|-------------------|
| Work Package 1 | Responsible       |                   |                   | Consults          |
| Work Package 2 |                   | Supports          |                   | Responsible       |
| Work Package 3 |                   |                   | Responsible       | Inform            |
| Work Package 4 | Responsible       | Approves          |                   |                   |

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Responsibility Assignment Matrix

### An Overview of Project Organizations

- No organization = no resources
- Project organization required to:
  - Estimate resource costs
  - Undertake scope definition
  - Establish the relationship of the PM to the forces that will undertake the work

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Responsibility Assignment Matrix

### Purpose of Project Organizations

*“to marshal adequate resources (human, material and financial) of an appropriate type to undertake the work of the project so as to deliver its objectives successfully.”*

Rodney Turner, The Handbook of Project Based Management, 1993

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Responsibility Assignment Matrix

## Types of Organizations

- Functional Hierarchy *Operationally Oriented*
- Coordinated Matrix
- Balanced Matrix
- Secondment Matrix
- Project Hierarchy *Project Oriented*

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Responsibility Assignment Matrix

## Types of Organizations

- Functional Hierarchy

Discipline Based Deliverable A    Discipline Based Deliverable B    Discipline Based Deliverable C

- WBS adjusted to suit organizational structure

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Responsibility Assignment Matrix

## Types of Organizations

- Project Hierarchy

Life Cycle Based Deliverable A    Life Cycle Based Deliverable B    Life Cycle Based Deliverable C

- WBS and OBS alignment

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Responsibility Assignment Matrix

## Types of Organizations

- Matrix

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    graph TD
      CE[Chief Executive] --> PL[Project Leader]
      CE --> CA[Chief Architect]
      CE --> CS[Chief Surveyor]
      CE --> CEng[Chief Engineer]
      PL --> PMA[PM A]
      PL --> PMB[PM B]
      PL --> PMC[PM C]
      CA --> LCA[Life Cycle Based Deliverable A]
      CS --> LCB[Life Cycle Based Deliverable B]
      CEng --> LCE[Life Cycle Based Deliverable C]
    
```

- Overlap of Functional and Project Hierarchies

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Responsibility Assignment Matrix

## Types of Matrix Organizations

- Coordinated Matrix
  - Project controller with responsibility to coordinate tasks
  - Limited authority, much responsibility
- Balanced Matrix
  - Project manager oversees project and responsible for time and cost
  - Shared responsibility with functional managers who are responsible for scope and quality
- Secondment Matrix
  - PM responsible for tasks and operational managers responsible (second) for resources

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Responsibility Assignment Matrix

## Defining Roles and Responsibilities

| Responsibility    | Role   |
|-------------------|--|
| For work          | Who is to undertake the project's task?  |
| For management    | Who is to undertake decisions?<br>Who is to manage progress?<br>Who is to guide and coach new resources?                     |
| For communication | Who must provide information and opinions?<br>Who may provide information and knowledge?<br>Who must be informed of outcomes |

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Responsibility Assignment Matrix

## Responsibility Assignment Matrix

- Matrix of work elements, organizational units and the defined relationship between the two.
- Can be used at any level of the WBS and OBS

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Responsibility Assignment Matrix

## Responsibility Matrix

Larsen and Gray (2014). Project Management: The Managerial Process 6th Edition, pp. 114.

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Responsibility Assignment Matrix

## Linear Responsibility Chart

|                                 | Vice-president | General manager | Project manager | Manager engineering | Manager software | Manager manufacturing | Manager marketing | Subprogram manager manufacturing | Subprogram manager software | Subprogram manager hardware | Subprogram manager services |
|---------------------------------|----------------|-----------------|-----------------|---------------------|------------------|-----------------------|-------------------|----------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Establish project plan          | 6              | 2               | 1               | 3                   | 3                | 3                     | 4                 | 4                                | 4                           | 4                           | 4                           |
| Define WBS                      |                | 5               | 1               | 3                   | 3                | 3                     | 3                 | 3                                | 3                           | 3                           | 3                           |
| Establish hardware specs        |                | 2               | 3               | 1                   | 4                | 4                     | 4                 |                                  |                             |                             |                             |
| Establish software specs        |                | 2               | 3               | 4                   | 1                | 4                     |                   |                                  |                             |                             |                             |
| Establish interface specs       |                | 2               | 3               | 1                   | 4                | 4                     | 4                 |                                  |                             |                             |                             |
| Establish manufacturing specs   |                | 2               | 3               | 4                   | 4                | 1                     | 4                 |                                  |                             |                             |                             |
| Define documentation            |                | 2               | 1               | 4                   | 4                | 4                     | 4                 |                                  |                             |                             |                             |
| Establish market plan           | 5              | 3               | 5               | 4                   | 4                | 4                     | 1                 |                                  |                             |                             |                             |
| Prepare labor estimate          |                |                 | 3               | 1                   | 1                | 1                     |                   | 4                                | 4                           | 4                           | 4                           |
| Prepare equipment cost estimate |                |                 | 3               | 1                   | 1                | 1                     |                   | 4                                | 4                           | 4                           | 4                           |
| Prepare material costs          |                |                 | 3               | 1                   | 1                | 1                     |                   | 4                                | 4                           | 4                           | 4                           |
| Make program assignments        |                |                 | 3               | 1                   | 1                | 1                     |                   | 4                                | 4                           | 4                           | 4                           |
| Establish time schedules        |                |                 | 5               | 3                   | 1                | 1                     | 1                 | 3                                | 4                           | 4                           | 4                           |

1 Actual responsibility  
 2 General supervision  
 3 Must be consulted  
 4 May be consulted  
 5 Must be notified  
 6 Final approval

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### Responsibility Charts: Responsibility for Work

- Moderate Chart
  - **R**esponsible
  - **A**pprove
  - **S**upport
  - **C**onsult
  - **I**nform
- Comprehensive Chart
  - **e**Xecutes the work
  - **D**ecisions solely or ultimately
  - **d**ecisions jointly or partly
  - controls **P**rogress
  - provides **T**eaching
  - must be **C**onsulted
  - Must be **I**nformed
  - available to **A**dvice

Grude and Haug, Goal Directed Project Management, 1987  
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Responsibility Assignment Matrix

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### RASCI Responsibility Chart

|                                | Organization |             |               |          |         |            |                   |               |
|--------------------------------|--------------|-------------|---------------|----------|---------|------------|-------------------|---------------|
| Deliverables                   | Design       | Development | Documentation | Assembly | Testing | Purchasing | Quality Assurance | Manufacturing |
| Architectural Design           | R            | S           |               |          | S       |            | C                 | C             |
| Hardware specifications        | S            | R           |               |          |         | S          | C                 |               |
| Kernel Specifications          | R            | C           |               |          |         |            |                   | C             |
| Utility Specifications         | S            | R           |               |          | C       |            |                   |               |
| Hardware Design                | R            |             |               | C        |         | C          |                   | C             |
| Disk Drives                    | C            | R           | S             |          |         |            |                   |               |
| Memory Management              | R            | C           |               |          | C       |            |                   |               |
| Operating system documentation | S            | S           | R             |          |         |            |                   | C             |
| Prototypes                     | A            |             | I             | R        | C       | C          | C                 | I             |
| Integrated acceptance test     | A            | S           | S             |          | R       |            | A                 | A             |

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Responsibility Assignment Matrix

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### Comprehensive Responsibility Chart

| PROJECT RESPONSIBILITY CHART |       |      |            |             | Companies/Departments/Functions/Type of resource |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|------------------------------|-------|------|------------|-------------|--|-----------------|------------|----|--------|-----|---------|----------|----------|------------|----------|----------|-------|--|--|
| Project                      | Phase | Task | Issue Date | Approved by | Project Admin                                    | Systems Analyst | Programmer | QA | Tester | DBA | Network | Hardware | Software | Operations | Security | Training | Other |  |  |
| CRMO RATIONALIZATION         | 1     | 101  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 2     | 102  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 3     | 103  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 4     | 104  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 5     | 105  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 6     | 106  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 7     | 107  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 8     | 108  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 9     | 109  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 10    | 110  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 11    | 111  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 12    | 112  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 13    | 113  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 14    | 114  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 15    | 115  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 16    | 116  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 17    | 117  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |
|                              | 18    | 118  |            |             |  |                 |            |    |        |     |         |          |          |            |          |          |       |  |  |

Project responsibility chart for the CRMO Rationalization Project

Responsibility Assignment Matrix

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Responsibility Assignment Matrix

## Responsibility for Management

- eXecutes the work
- **D**ecisions solely or ultimately
- **d**ecisions jointly or partly
- controls **P**rogress
- provides **T**eaching
- must be **C**onsulted
- Must be **I**nformed
- available to **A**dvice

- **D**ecisions solely or ultimately
- **d**ecisions jointly or partly
- controls **P**rogress

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Responsibility Assignment Matrix

## Responsibility Charts: Responsibility for Management

| Decision Mode | Person |   |   | Description  |
|---------------|--------|---|---|--|
|               | A      | B | C |  |
| D1            | D      | - | - | A takes the decision alone                                 |
| D2            | -      | d | d | B and C share the decision.                                |
| D3            | D      | d | d | B and C close options and recommend. A decides             |
| D4            | D      | d | C | C's opinion is sought. B closes options. A makes decision. |

Rodney Turner, The Handbook of Project Based Management, 1993  
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Responsibility Assignment Matrix

## Responsibility Charts: Responsibility for Communication

- **C**omprehensive Chart
  - must be **C**onsulted
    - Provide information and opinion but do not have authority
  - must be **I**nformed
    - Coordinated information between projects and other parts of the organization
- available to **A**dvice
  - May have information but value input unknown until relevant task of project is reached

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Responsibility Assignment Matrix

## Work and Responsibility

- Balance of commitment and resources estimates required to establish responsibility
- Consumption of resources
  - eXecutes the work
  - provides Teaching

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Responsibility Assignment Matrix

## Work and Responsibility

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Responsibility Assignment Matrix

## A Relationship of Work to Responsibility

|                |             | OBS               |                   |                   |                   |
|----------------|-------------|-------------------|-------------------|-------------------|-------------------|
| WBS            |             | Functional Unit 1 | Functional Unit 2 | Functional Unit 3 | Functional Unit 4 |
| Work Package 1 | Responsible |                   |                   |                   | Consults          |
| Work Package 2 |             |                   | Supports          |                   | Responsible       |
| Work Package 3 |             |                   |                   | Responsible       | Inform            |
| Work Package 4 | Responsible |                   | Approves          |                   |                   |

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Responsibility Assignment Matrix

## Lesson Summary

- In this presentation, we:
  - Provided an overview of the process of assigning work to organizational units
  - Discussed types of project organizations, at a high level
  - Explored tools to relate work to responsibility and accountability

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