

Beefing Up Program Controls with the use of...

**INTEGRATED
MASTER PLAN**

**INTEGRATED
MASTER SCHEDULE**

Presented by:

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703.924.3399

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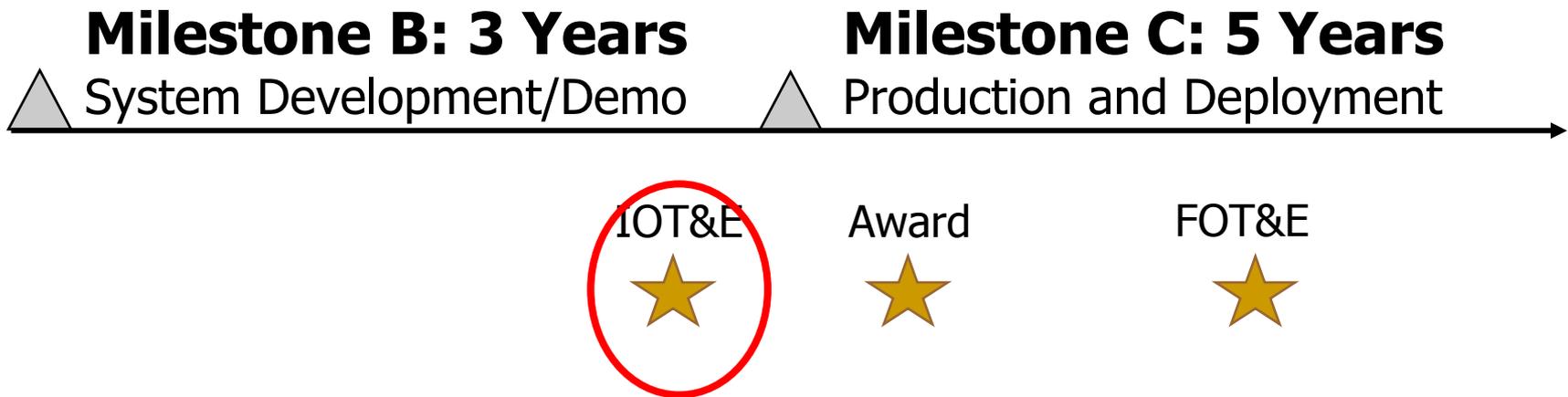
Meat Between the Milestones

Beef Up your Program Controls to get the metrics for Measurement and Management. Let the Master Plan and Schedule give integrity to forecast APB Milestones dates and cost. Gain timely risk identification and mitigation for response, not reaction.

- Defines Components of the Structure
- Shows Horizontal and Vertical traceability
- Illustrates Schedule to Cost Relationship
- Ties to potential Performance Based Payments

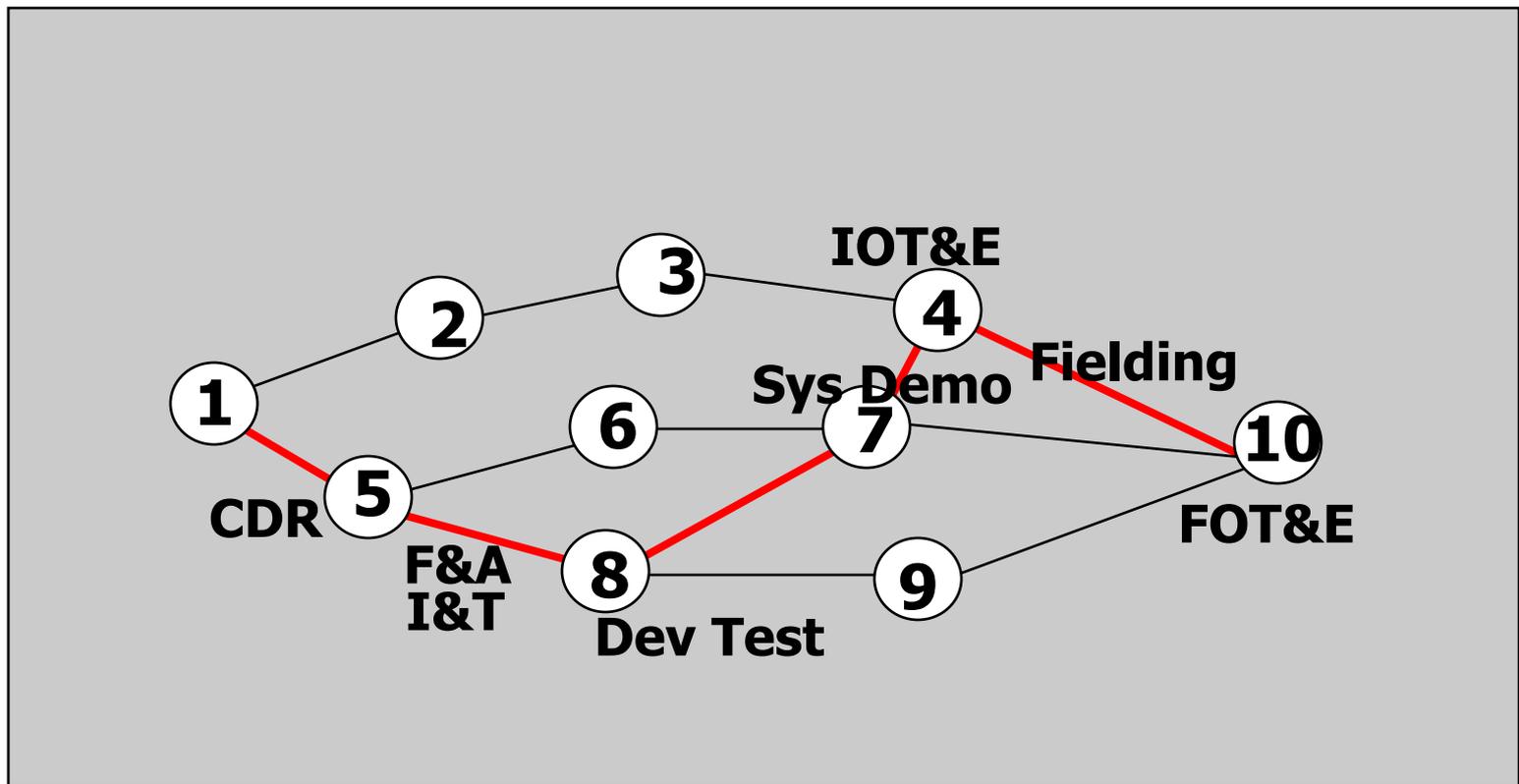
Acquisition Program Baseline

Acquisition Program Baseline (APB) is established prior to Milestone B and documents the strategy throughout the life cycle of the acquisition.

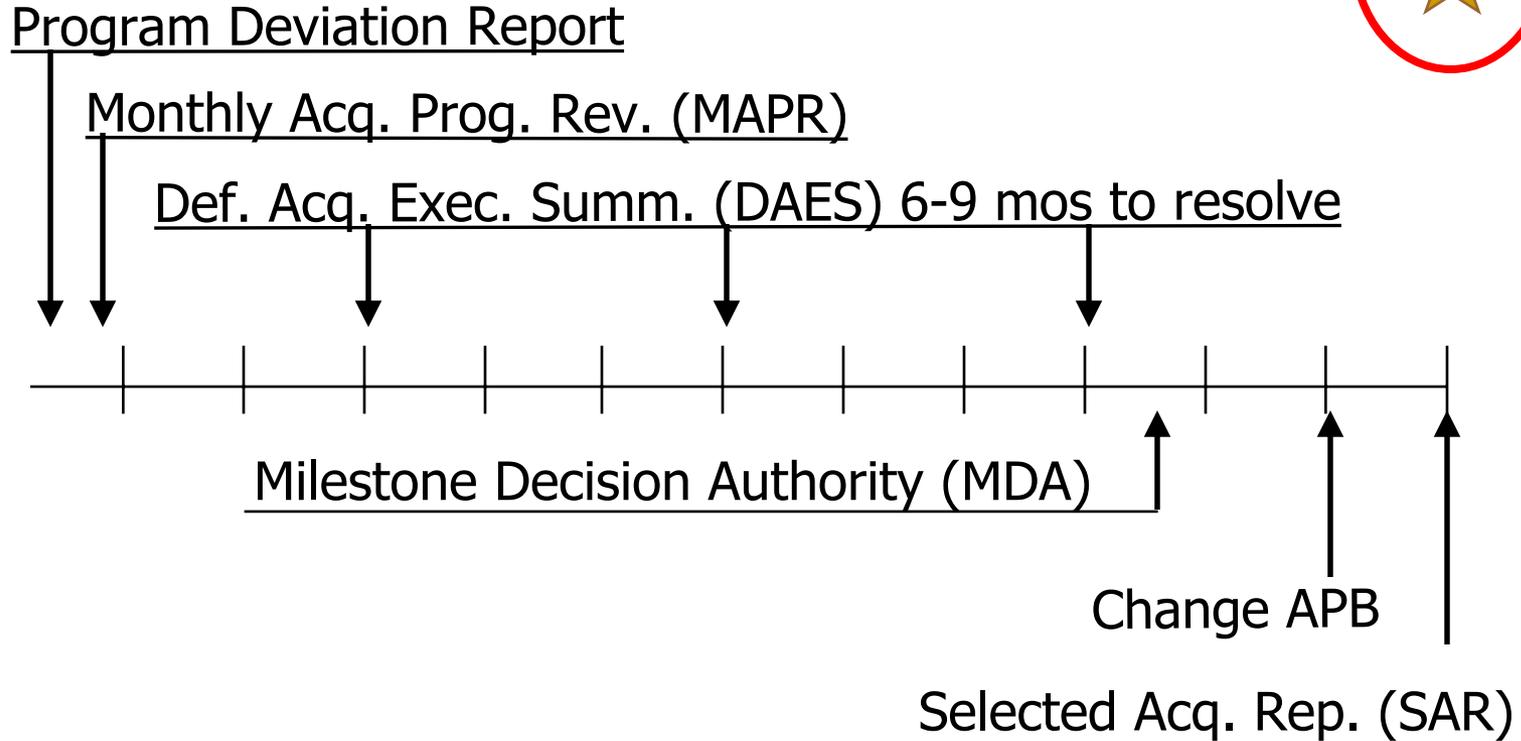


Tracking to the Milestones

Before computers (late 50s), the Arrow Diagram Method (ADM) was the method of Planning & Controls.



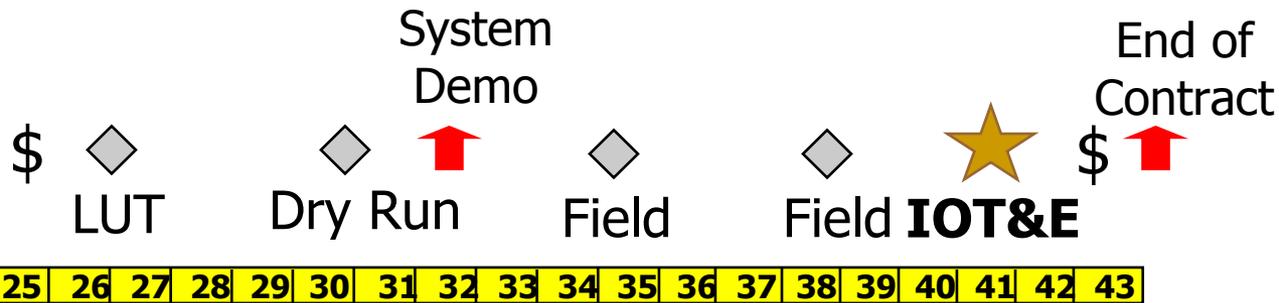
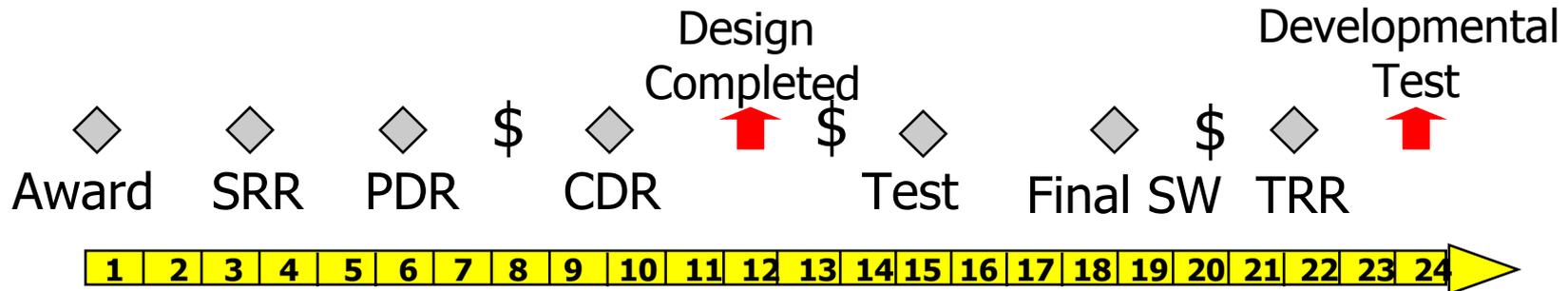
It Takes a Year



Consolidated Acq. Rep. Sys. (CARS)

Key Programmatic Events

▲ Milestone B: System Development / Demonstration



| LEGEND | |
|--|-------------------------------|
| ▲ Milestone Decision Authority | ↑ Project Event |
| ★ Acquisition Program Baseline Milestone | ◇ Major Milestone |
| | \$ Performance Based Payments |

Key Programmatic Events

Milestone B: System Development / Demonstration

 Acquisition Program Baseline(APB) Milestone: IOT&E

 Product Design Completed

 IPTs lists processes significant to accomplish Product Design

- System Requirements Defined
- Preliminary Design Complete
- Critical Design Complete

 And list the criteria for that accomplishment

IMP Specific Contents

Integrated Master Plan shall cover the

- Organizational Structure
- Program Management
- Methodology
- Personnel
- Security
- CDRL Data Reports
 - Integrated Master Schedule (IMS) DI-MISC-81183A
 - Contract Work Breakdown Structure (CWBS)
DI-MGMT-81334
 - Cost reporting
 - Technical Reports and Logistical Submission

IMP Table in the Narrative

| LI | PE | SA | AC | Task Description |
|----|-----------|-----------|-----------|---|
| 1 | | | | New Product Project |
| 2 | 01 | | | Product Design Completed |
| 3 | 01 | 01 | | Sys IPT - System Requirements Defined |
| 4 | 01 | 01 | 01 | Requirements Reviewed |
| 8 | 01 | 01 | 02 | Specifications Reviewed |
| 12 | 01 | 01 | 03 | Checked for Compliance |
| 17 | 01 | 01 | 04 | Sys IPT Ready for SRR |
| 20 | 01 | 01 | 05 | Sys IPT Post SRR Closeout |
| 26 | 01 | 02 | | Sys IPT - Preliminary Drawings Completed |
| 27 | 01 | 02 | 01 | SRR Incorporation |
| 31 | 01 | 02 | 02 | Draft Preliminary Drawings Completed |
| 35 | 01 | 02 | 03 | Final Preliminary Drawings Completed |
| 40 | 01 | 02 | 04 | Sys IPT Ready for PDR |
| 43 | 01 | 02 | 05 | Sys IPT Post PDR Closeout |
| 49 | 01 | 03 | | Sys IPT- Critical Drawings Completed |
| 50 | 01 | 03 | 01 | PDR Incorporation |
| 51 | 01 | 03 | 02 | Draft Critical Drawings Completed |
| 52 | 01 | 03 | 03 | Final Critical Drawings Completed |
| 53 | 01 | 03 | 04 | Sys IPT Ready for CDR |
| 55 | 01 | 03 | 05 | Sys IPT Post CDR Closeout |
| 59 | 01 | 04 | | SW IPT - Software Requirements |
| 60 | 01 | 04 | 01 | Critical Flow Diagrams Completed |

- Summarizes Plan
- Configuration Controlled
- Not time-phased
- Basis for IMS
- Ties to SOW, WBS, CPR and APB

Project Events (PE)

Summarizes Program at Tier One

- ↑ Definable
- ↑ At least Annually
- ↑ Identified in the RFP
- ↑ Target Dates and Fee
- ↑ With Major Milestones for Master Schedule

Significant Accomplishment (SA)

Summarizes the Statement of Work at Tier Two

- ▼ Multiple SAs for each PE
- ▼ Demonstrates Understanding of
 - Government Needs and Concerns
 - SOW
 - Acquisition Life Cycle
 - Technical Challenges
- ▼ Evolves the Plan
- ▼ WBS Pure
- ▼ Can be Control Account
- ▼ Included in Intermediate Schedule

| LI | PE | SA | AC | Task Description | Dur |
|-----|-----------|-----------|----|---|-------------|
| 1 | | | | New Product Project | 680d |
| 2 | 01 | | | Product Design Completed | 249d |
| 3 | 01 | 01 | | Sys IPT - System Requirements Defined | 74d |
| 26 | 01 | 02 | | Sys IPT - Preliminary Drawings Completed | 136d |
| 49 | 01 | 03 | | Sys IPT- Critical Drawings Completed | 75d |
| 59 | 01 | 04 | | SW IPT - Software Requirements | 50d |
| 64 | 01 | 05 | | SW IPT- Software Desktop Solutions | 125d |
| 70 | 01 | 06 | | SW IPT- PDR Presentation | 105d |
| 76 | 01 | 07 | | SW IPT- Build Organization | 75d |
| 82 | 01 | 08 | | Deployment IPT - Logistics | 65d |
| 88 | 01 | 09 | | Deployment - Fielding & Training | 208d |
| 94 | 01 | 10 | | Test IPT - From the TEMP | 249d |
| 100 | 02 | | | System Test | 500d |
| 101 | 03 | | | System Demonstrated | 180d |
| 102 | 04 | | | System Delivered | 175d |

Accomplishment Criteria (AC)

Defines exit criteria for each SA provides a checklist

- ④ Evolves the Plan
- ④ Summarizes at Tier Three
- ④ Objective Fee Calculation
- ④ Can be Work Package
- ④ Included in Detail Schedule

| LI | PE | SA | AC | Task Description |
|----|----|----|----|---|
| 1 | | | | New Product Project |
| 2 | 01 | | | Product Design Completed |
| 3 | 01 | 01 | | ✓ Sys IPT - System Requirements Defined |
| 4 | 01 | 01 | 01 | ✓ Requirements Reviewed |
| 8 | 01 | 01 | 02 | ✓ Specifications Reviewed |
| 12 | 01 | 01 | 03 | ✓ Checked for Compliance |
| 17 | 01 | 01 | 04 | ✓ Sys IPT Ready for SRR |
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| 55 | 01 | 03 | 05 | ✓ Sys IPT Post CDR Closeout |
| 59 | 01 | 04 | | ✓ SWIPT - Software Requirements |
| 60 | 01 | 04 | 01 | ✓ Critical Flow Diagrams Completed |

IMP to IMS Relationship

IMP Table

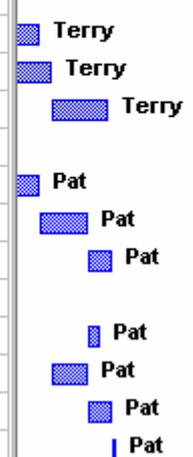
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| 60 | 01 | 04 | 01 | Critical Flow Diagrams Completed |

| | | | |
|----|----|----|----|
| 12 | 01 | 01 | 03 |
| 13 | 01 | 01 | 03 |
| 14 | 01 | 01 | 03 |
| 15 | 01 | 01 | 03 |
| 16 | 01 | 01 | 03 |

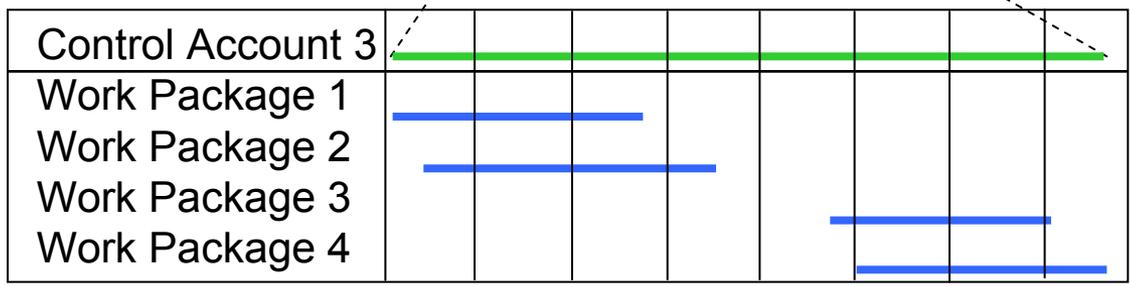
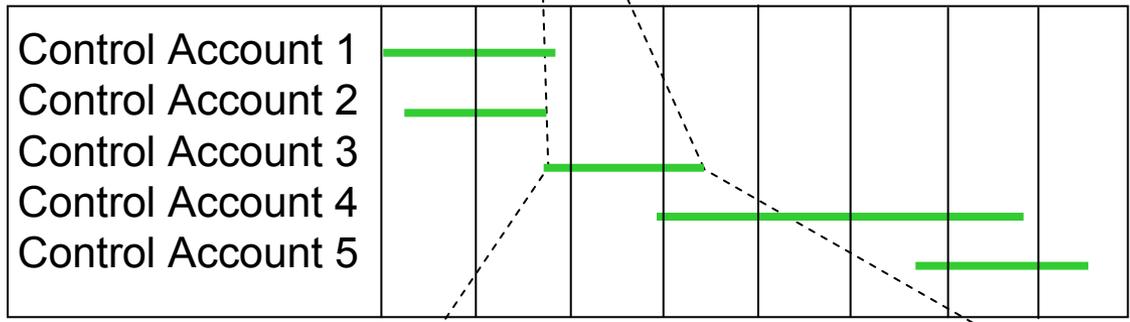
Detailing with tasks, activities, and milestones; time-phasing with durations, dependencies and sequencing relationships creates the IMS

Integrated Master Schedule (IMS)

| Task Description | Dur | 2001 | | | | |
|---------------------------------------|------|------|-----|-----|-----|-----|
| | | Jan | Feb | Mar | Apr | May |
| New Product Project | 680d | | | | | |
| Product Design Completed | 249d | | | | | |
| Sys IPT - System Requirements Defined | 74d | | | | | |
| Requirements Reviewed | 39d | | | | | |
| Task 1 | 10d | | | | | |
| Task 2 | 15d | | | | | |
| Task 3 | 24d | | | | | |
| Specifications Reviewed | 40d | | | | | |
| Task 4 | 10d | | | | | |
| Task 5 | 20d | | | | | |
| Task 6 | 10d | | | | | |
| Checked for Compliance | 27d | | | | | |
| Task 13 | 5d | | | | | |
| Task 14 | 15d | | | | | |
| Task 16 | 10d | | | | | |
| Task 15 | 2d | | | | | |



IMP Vertical Traceability

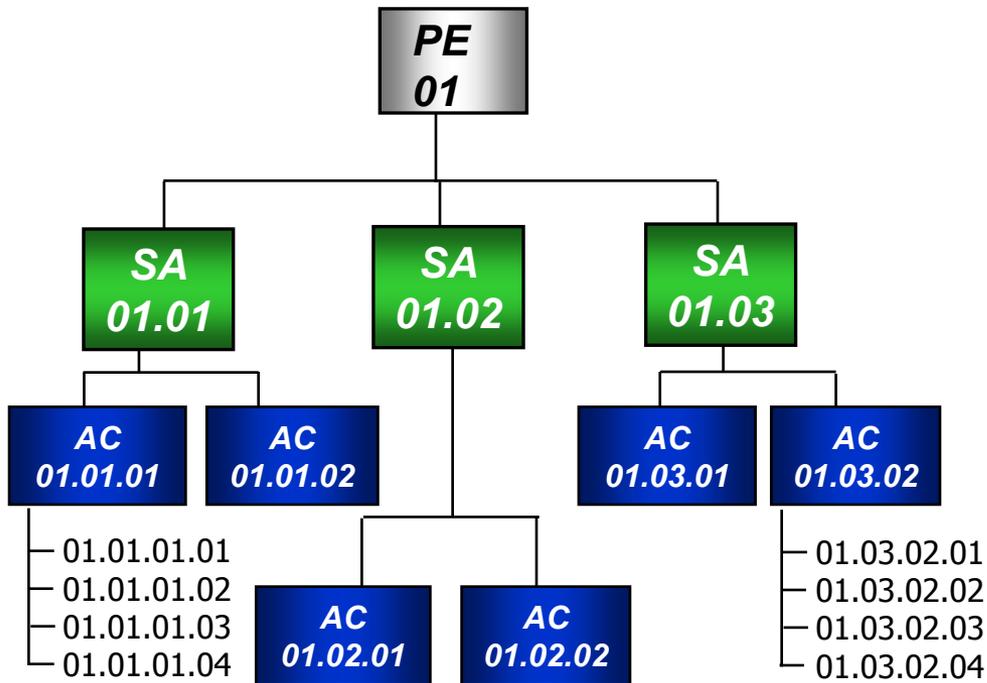


While Control Account and Work Package levels are determined by the bidder, the system lends itself to this format.

A summarizing of the time-phased schedule creates Master and Intermediate level schedules in direct correlation to the IMP.

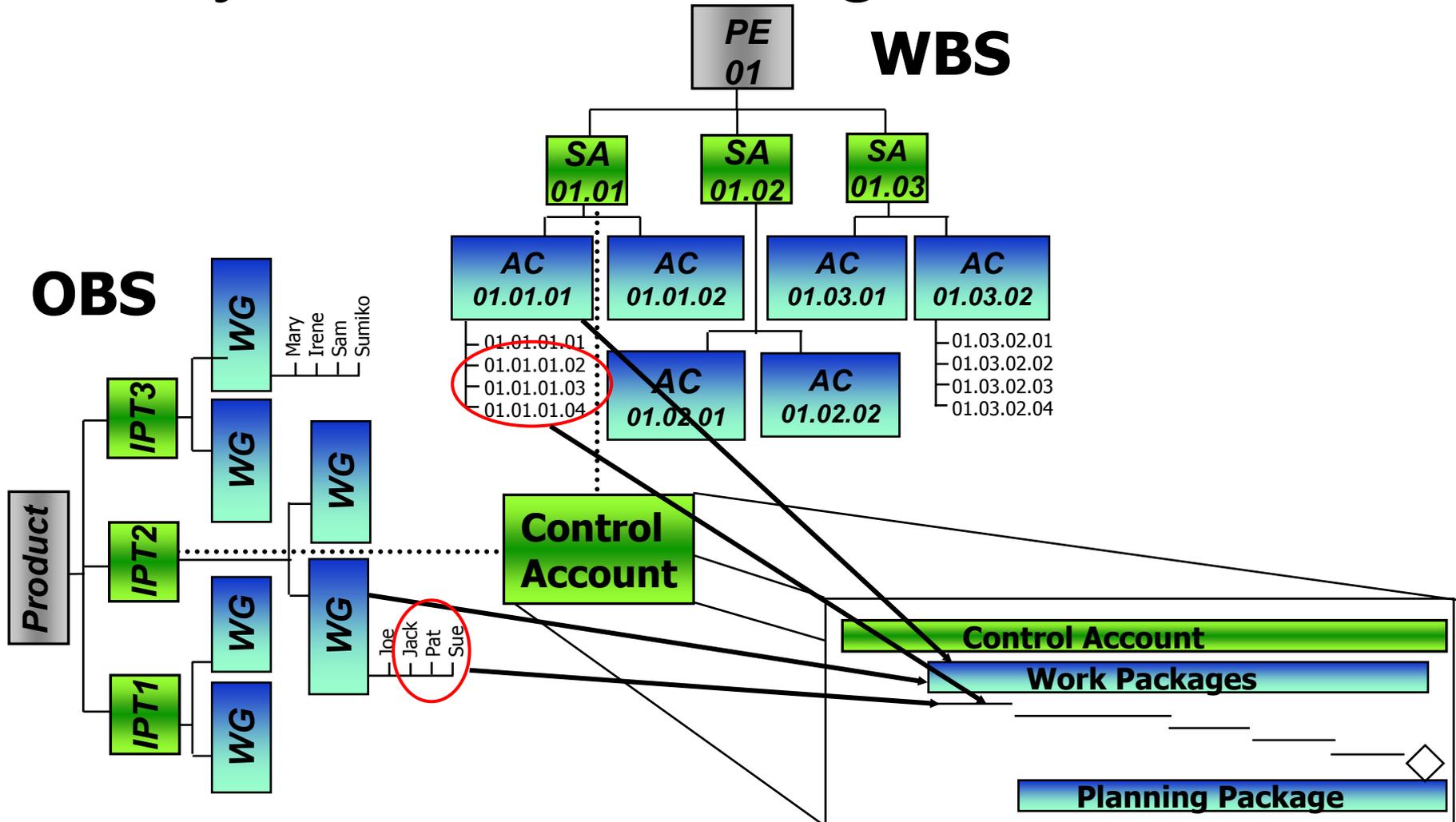
IMP Horizontal Traceability

Sequential numbering creates a Work Breakdown Structure (WBS) and unique identification.



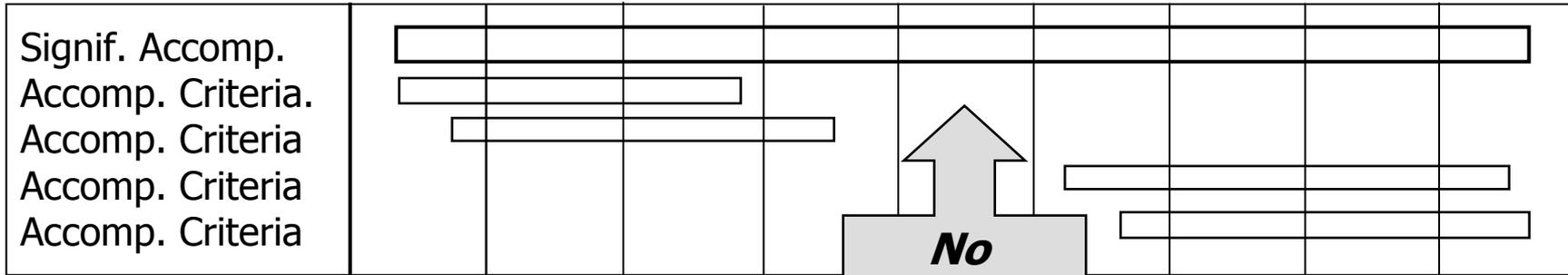
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|----|----|----|----|---|
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Key Point for Management Control



Basis of Cost Estimation

Gantt view of time-phased activities for each reporting element will show need for resources allocation.



Resourced in Hours per Month for Category.
These hours are then dollarized at corporate rates.

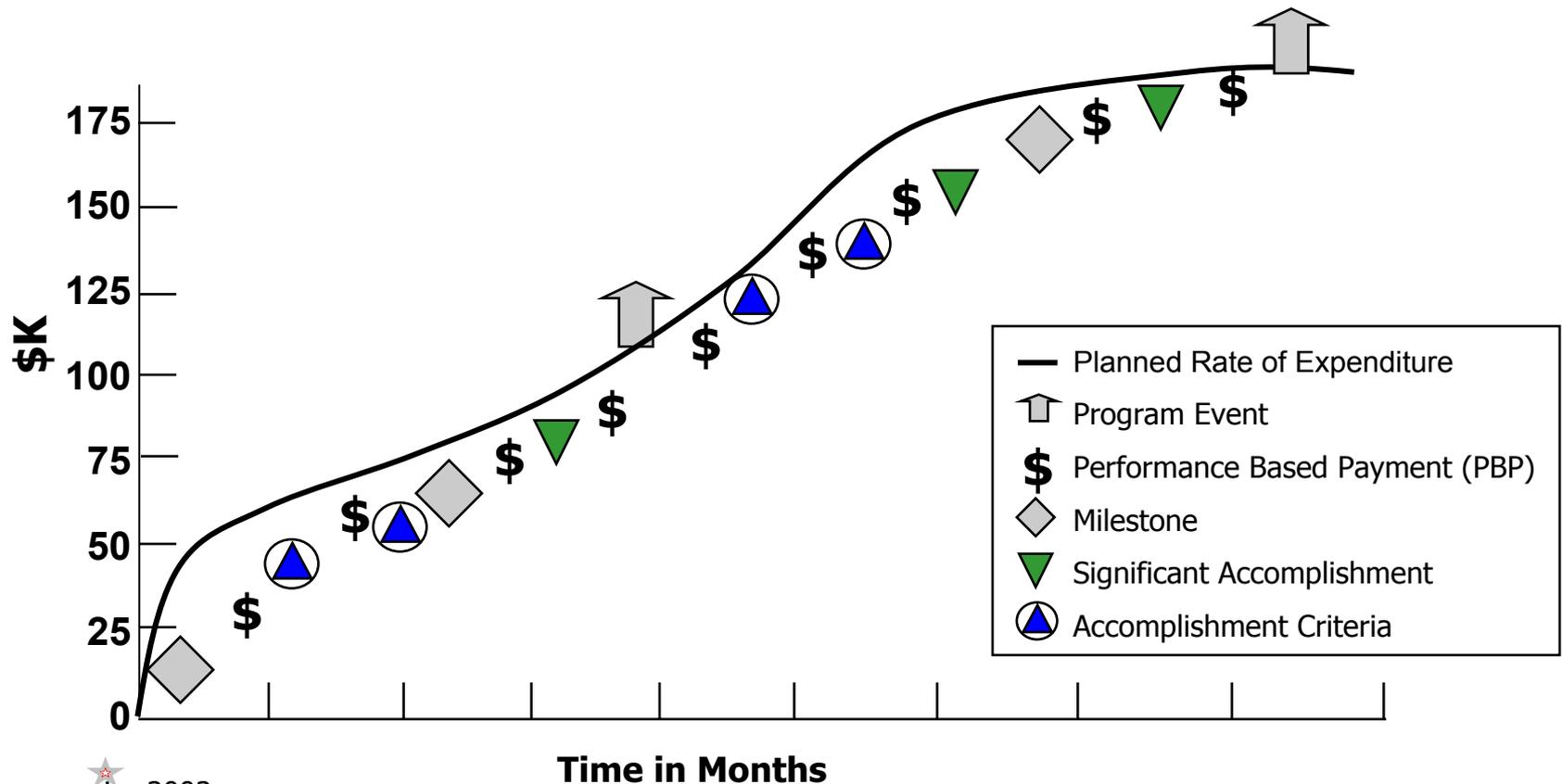
**No
schedule
No
budget**

| | | | | | | | | | |
|-------------------|-----|-----|-----|-----|---|-----|-----|-----|-----|
| Control Account 1 | 320 | 640 | 560 | 240 | | 320 | 640 | 640 | 240 |
| Work Package 1 | 240 | 320 | 240 | | | | | | |
| Work Package 2 | 80 | 320 | 320 | 240 | 0 | | | | |
| Work Package 3 | 0 | 0 | 0 | 0 | 0 | 240 | 320 | 320 | 200 |
| Work Package 4 | 0 | 0 | 0 | 0 | 0 | 80 | 320 | 320 | 40 |
| Engineer | 140 | 240 | 160 | 60 | 0 | 60 | 160 | 160 | 80 |
| Technician | 140 | 240 | 240 | 60 | 0 | 100 | 320 | 320 | 120 |
| Admin | 40 | 160 | 160 | 120 | 0 | 160 | 160 | 160 | 40 |

© Programmatic 2002 *Expressed in \$K, the result is the **BCWS**.*

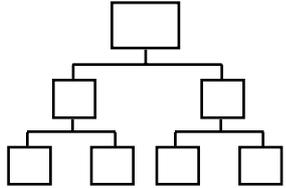
PBP and Project Events

- Payments at least monthly
- Can be paid out-of-sequence
- Carefully chosen to reflect meaningful contract progress

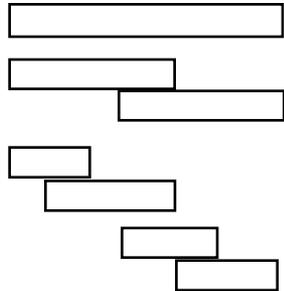


Performance Measurement Baseline

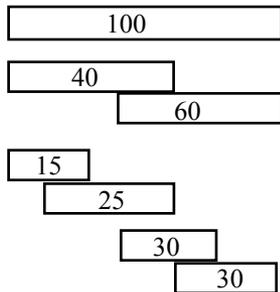
1. DEFINE THE WORK



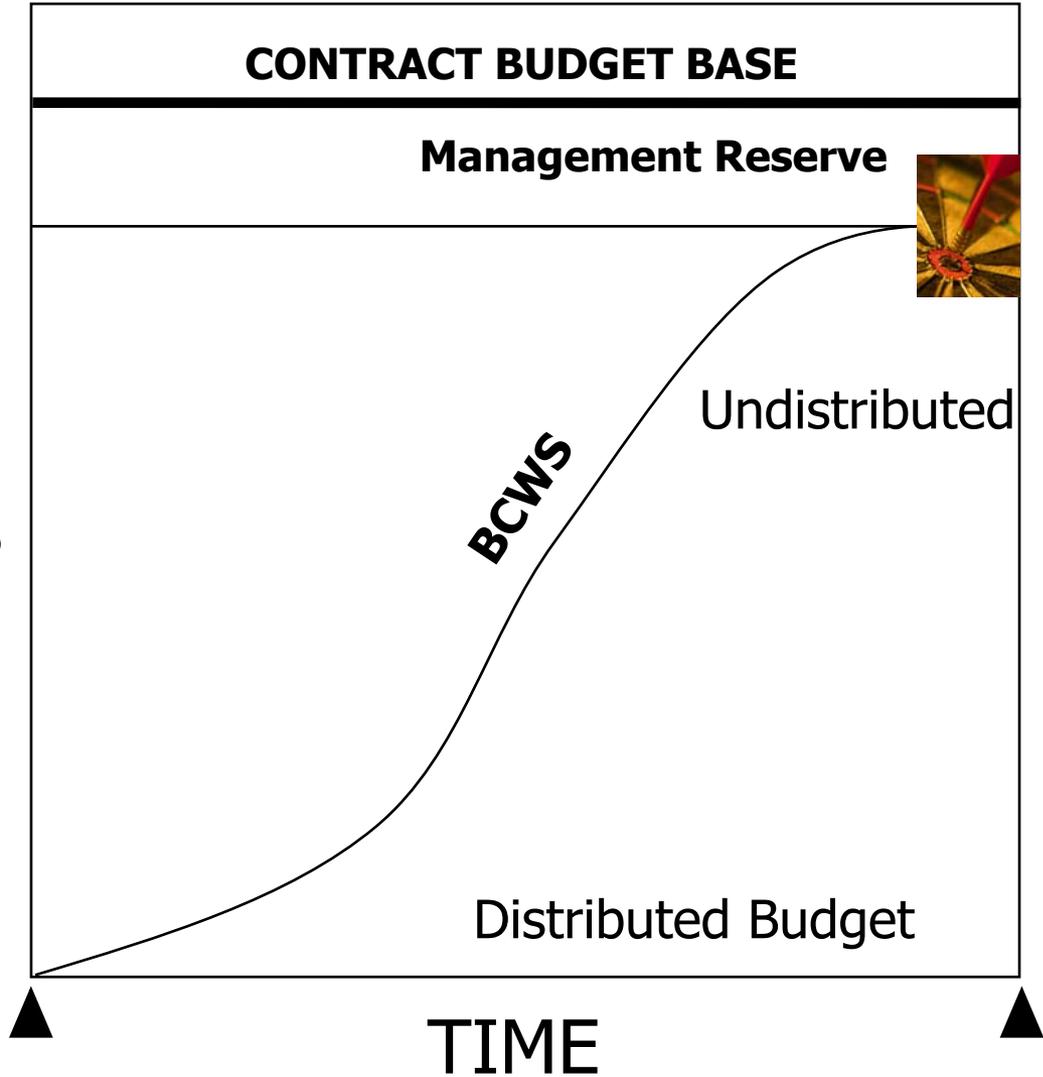
2. SCHEDULE THE WORK



3. ALLOCATE BUDGETS



\$



IMP to Contract Relationship



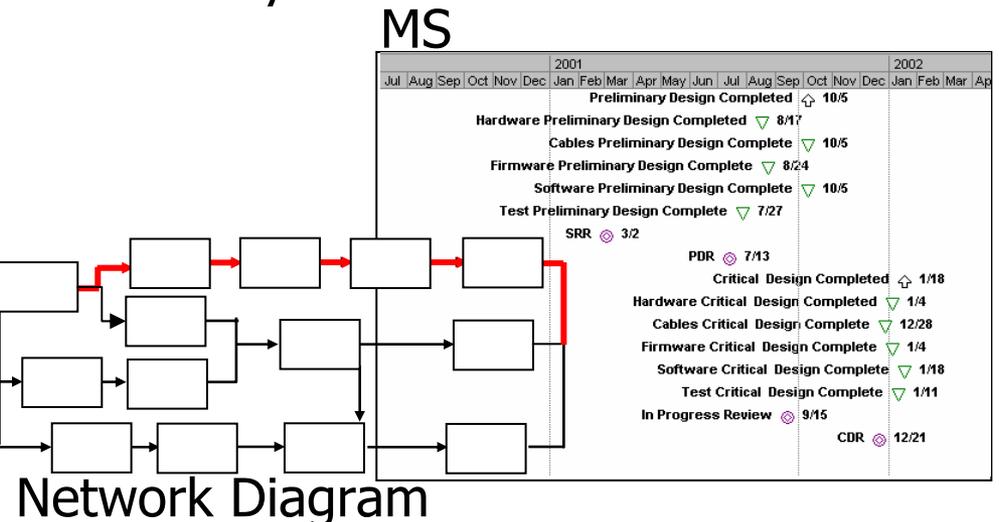
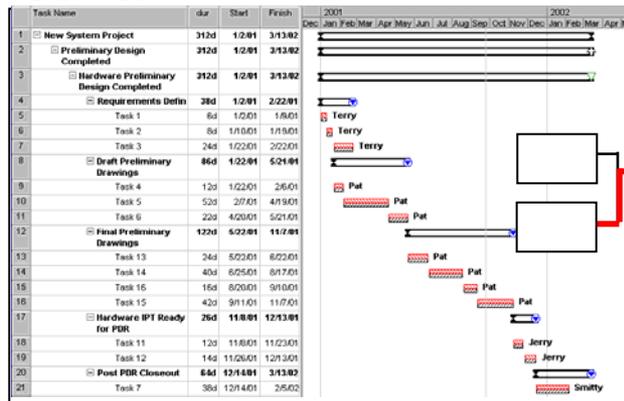
“The Integrated Master Plan (IMP) is a contractual document, and as such, describes the activities and scope of work on the contract. The IMP will always represent the contractor’s interpretation of contract scope reflected in the SOW and CLINs. It is for this reason that care must be exercised in defining an IMP and the IMP narrative to ensure the program does *not over obligate the company on the contract.*”

Program Management Body
of Knowledge (PMBOK)

Suggested RFP IMS Wording

The Integrated Master Schedule file shall indicate all Project Events, Significant Accomplishments, and Accomplishment Criteria and supported by detailed tasks, activities, and milestones and their dependencies such that it calculates an accurate critical path. That file shall be in a Microsoft Project compatible format and allow the presentation of Gantt and Network Diagram charting and CMS filtering. The proposed IMS file shall be provided in hard and soft copy as a Schedule Volume attachment with the Offeror's proposal as an individual data item (CDRL) and monthly thereafter.

Gantt



Conclusion

Prior Planning Prevents Poor Performance

IMP/IMS is the foundation of a project's profitability

If you can't measure it, you can't manage it.

David Walker, Comptroller General