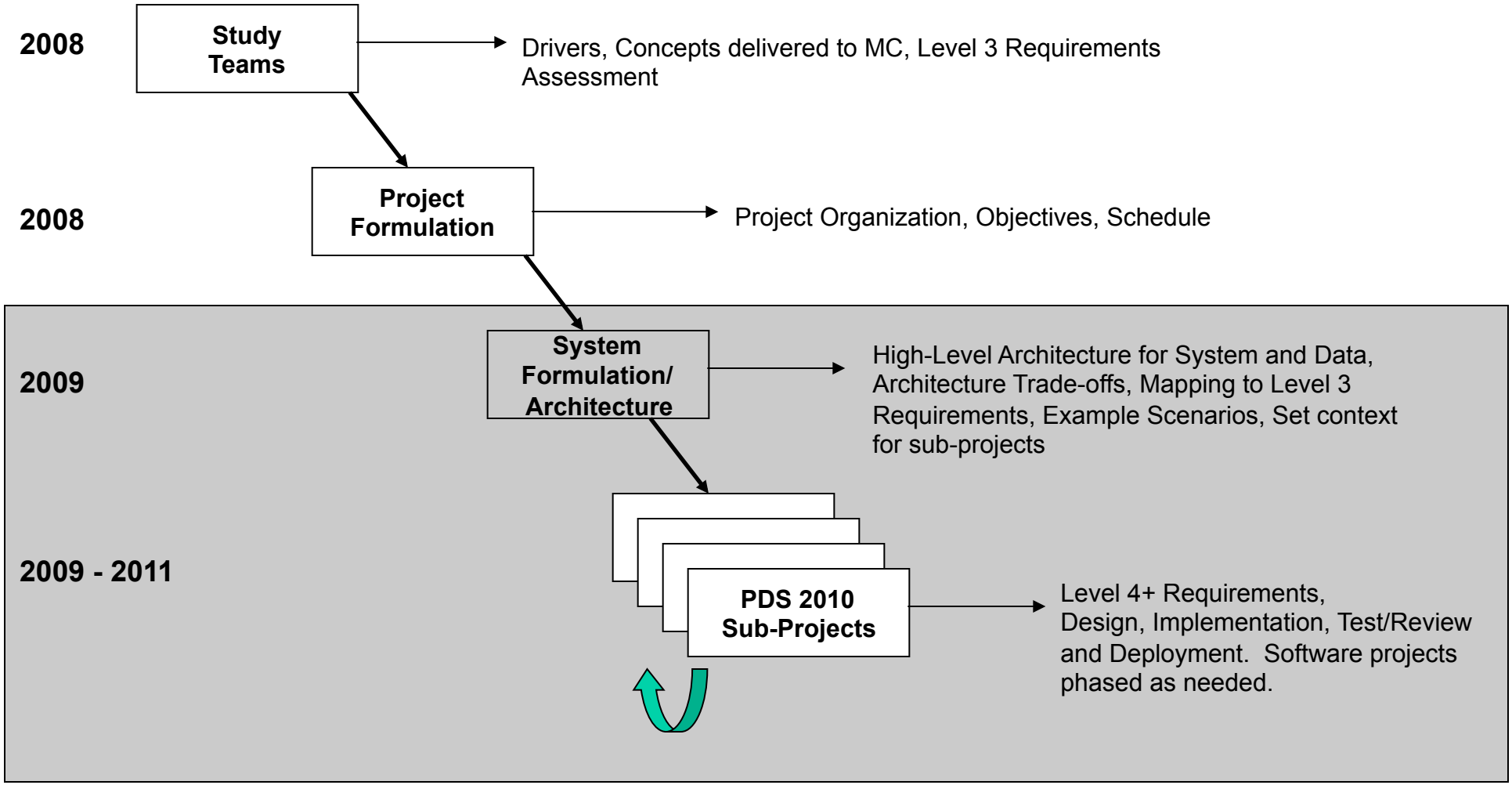
National Aeronautics and
Space Administration

PDS 2010 Wrap Up Discussion

November 20, 2008

National Aeronautics and Space Administration

System Engineering Plan



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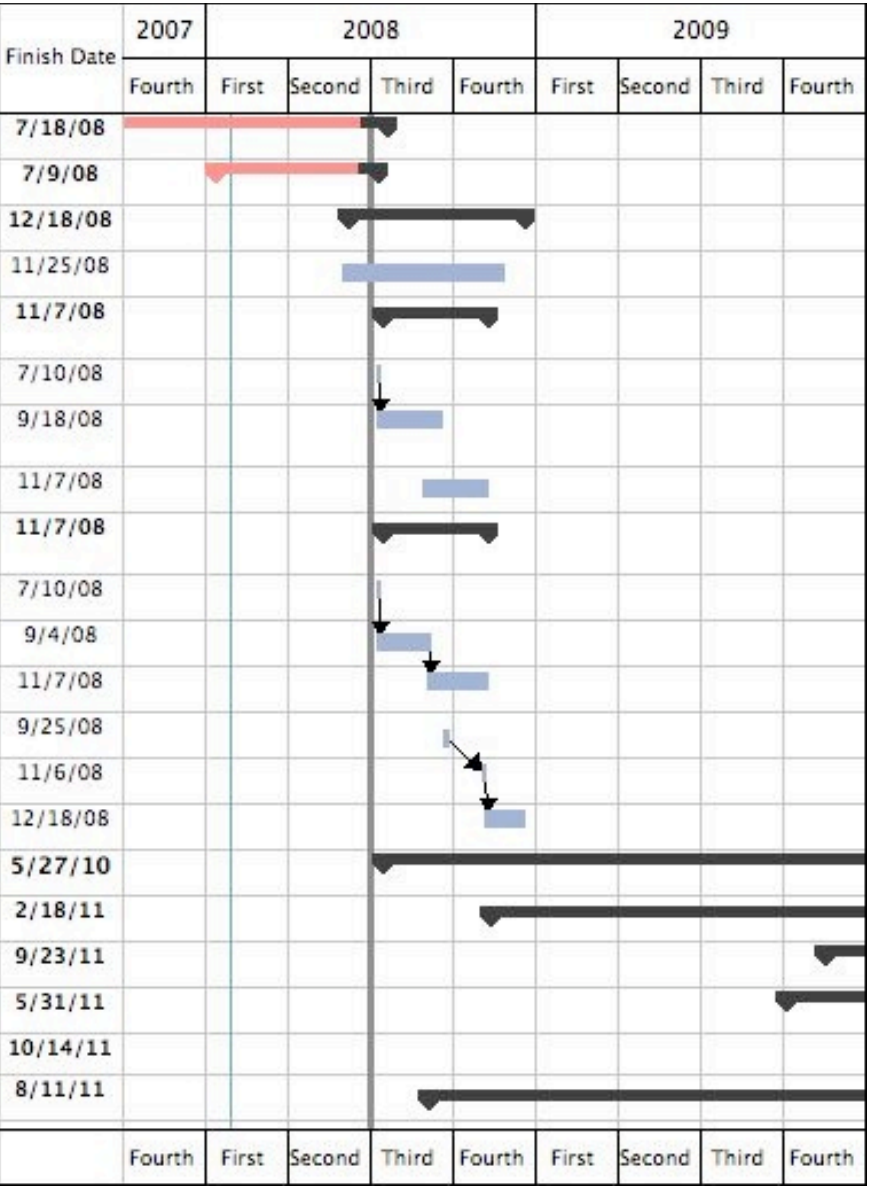
PDS 2010 Schedule (from July)

Activity Name	Start Date	Finish Date
Concept/Study Phase...	8/20/07	7/18/08
Project Planning...	1/7/08	7/9/08
PDS 2010 Architecture	6/2/08	12/18/08
Finalize PDS 2010 Level 1,2,3 Requirements	6/2/08	11/25/08
Preliminary PDS 2010 Data Architecture & Information Model	7/10/08	11/7/08
Form Design Team	7/10/08	7/10/08
Draft Information Model Specification	7/11/08	9/18/08
Prototype Node Examples in PDS 2010	9/1/08	11/7/08
Preliminary PDS 2010 System Architecture Specification	7/10/08	11/7/08
Form Design Team	7/10/08	7/10/08
System Definition and Decomposition	7/11/08	9/4/08
Service Definitions and Service Model	9/5/08	11/7/08
PDS 2010 Tech Session	9/24/08	9/25/08
MC Summary Presentation (Fall MC)	11/6/08	11/6/08
Finalize High Level Architecture	11/7/08	12/18/08
P1. PDS 2010 Data Standards Project...	7/10/08	5/27/10
P2. Distributed Infrastructure Project...	11/7/08	2/18/11
P3. PDS 2010 Tools Project...	11/13/09	9/23/11
P4. Distributed Catalog System Project...	9/30/09	5/31/11
P5. Portals, Search and Distribution	6/14/10	10/14/11
P6. Data Movement and Delivery Project...	9/1/08	8/11/11



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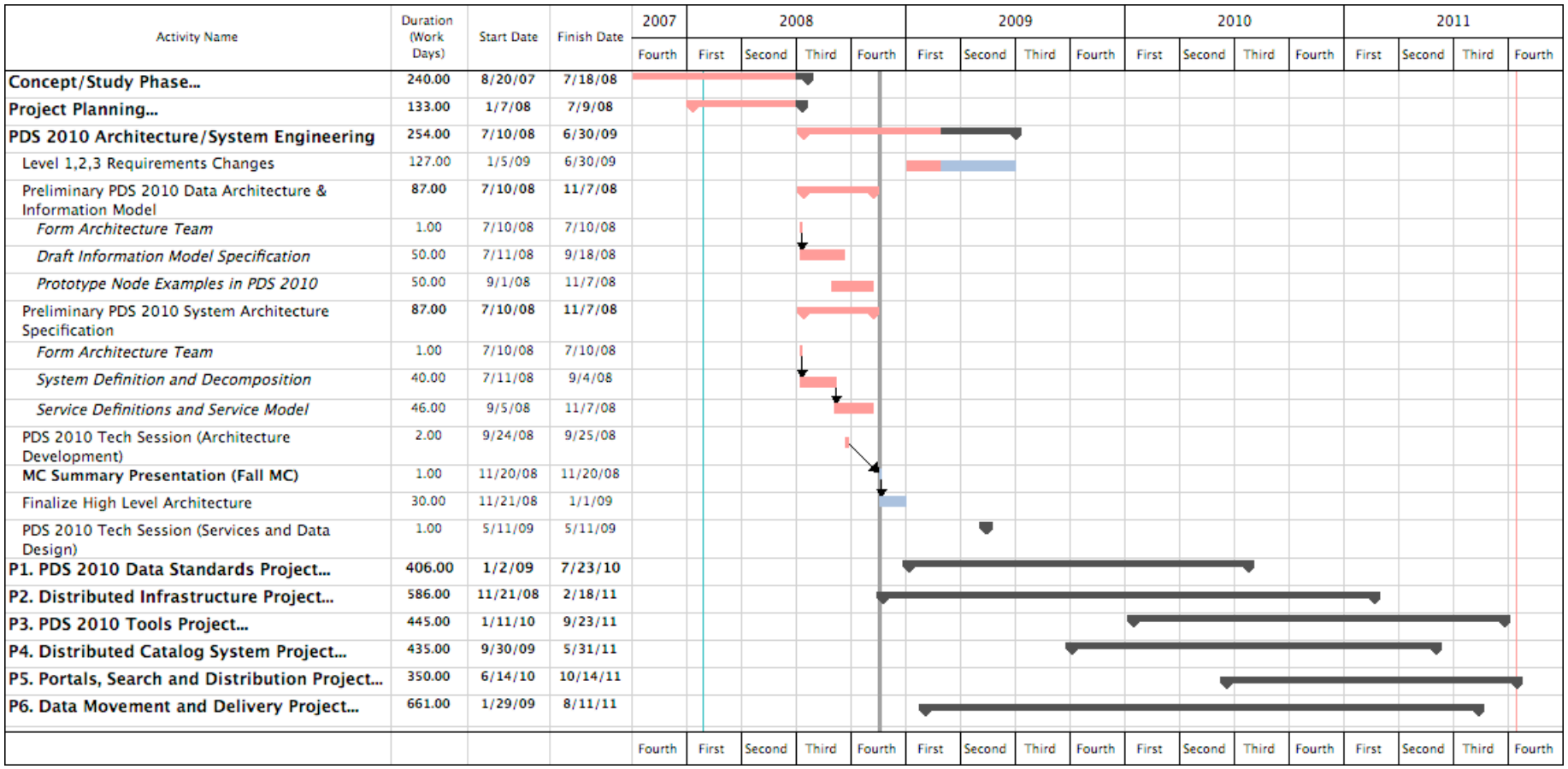
Current Schedule



Activity Name	Duration (Work Days)	Start Date	Finish Date
Concept/Study Phase...	240.00	8/20/07	7/18/08
Project Planning...	133.00	1/7/08	7/9/08
PDS 2010 Architecture/System Engineering	254.00	7/10/08	6/30/09
Level 1,2,3 Requirements Changes	127.00	1/5/09	6/30/09
Preliminary PDS 2010 Data Architecture & Information Model	87.00	7/10/08	11/7/08
Form Architecture Team	1.00	7/10/08	7/10/08
Draft Information Model Specification	50.00	7/11/08	9/18/08
Prototype Node Examples in PDS 2010	50.00	9/1/08	11/7/08
Preliminary PDS 2010 System Architecture Specification	87.00	7/10/08	11/7/08
Form Architecture Team	1.00	7/10/08	7/10/08
System Definition and Decomposition	40.00	7/11/08	9/4/08
Service Definitions and Service Model	46.00	9/5/08	11/7/08
PDS 2010 Tech Session (Architecture Development)	2.00	9/24/08	9/25/08
MC Summary Presentation (Fall MC)	1.00	11/20/08	11/20/08
Finalize High Level Architecture	30.00	11/21/08	1/1/09
PDS 2010 Tech Session (Services and Data Design)	1.00	5/11/09	5/11/09
P1. PDS 2010 Data Standards Project...	406.00	1/2/09	7/23/10
P2. Distributed Infrastructure Project...	586.00	11/21/08	2/18/11
P3. PDS 2010 Tools Project...	445.00	1/11/10	9/23/11
P4. Distributed Catalog System Project...	435.00	9/30/09	5/31/11
P5. Portals, Search and Distribution Project...	350.00	6/14/10	10/14/11
P6. Data Movement and Delivery Project...	661.00	1/29/09	8/11/11

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Summary

- **Key Architecture Recommendations**
  - *Data Architecture*
    - High level architecture is defined and understood
    - Discussion and planning has moved towards design tradeoffs and implementation
  - *System Architecture*
    - High level architecture is defined as a services-based architecture
    - Begin services planning and design
- **Fundamental Questions**
  - *MC answers to priorities and trade offs will be important to moving forward with the PDS 2010 projects*

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Project Next Steps

- **Finalize architecture work and dissolve teams (December 2008)**
- **Form design teams for (January 2009)**
  - *Data standards and architecture implementation*
    - In general, it is critical that this be in front of the software projects (with the exception of planning the services implementation)
  - *Distributed services implementation*
- **Derive designs which include**
  - *Mapping of level 1/2/3 requirements to design*
  - *Derived level 4 requirements, where necessary*
  - *Implementation planning*
  - *Strawman designs*
- **Present update/strawman designs at next MC (April 2009)**
  - *Identify and gaps, questions*
  - *Identify policies and discussion deployment/provisioning*
- **Convene tech session in spring to discuss design proposals**
  - *Detailed discussion and engagement across PDS*

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Support/Resources

- In March MC, we projected that each node request 0.5 FTE overguide to support PDS 2010 in FY10/FY11, where needed
- EN re-worked its FY09+ POP to re-program its development and system engineering plans to support PDS 2010 based on the schedule presented
- Our plan is to assume current level of funding + FY10 and FY11 overguide

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Requests for the MC

- Respond to fundamental questions
- Input on design trade off/approach for data model
- Review and confirmation of proposed next steps
- Any suggestions/comments
- Support for Tech Staff to be involved in PDS 2010 development