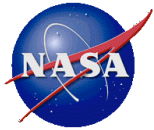




# **PDS Home Page User Interface Preliminary Design Review**

Release 1

May 31, 2007

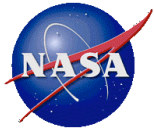


# Agenda

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- Introduction
- Review Scope
- Usability Testing and Usability Test Plan
- Proposed Content
- Summary

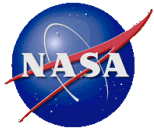


# Introduction

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- **Home page design work accomplished**
  - Mockups for major use cases
  - Working prototype of proposed top-level search interface
  - 2-phase implementation plan
  - Usability test plan
- **UI design activities**
  - (done) Create mockups for major use cases
  - (done) Initial refinement based on a few test users
  - (now to 06-30) Review and refine mockups
  - (June) Visual design and review
  - (July) Implementation
  - (August) Final usability testing, report, and review
  - (late August) MC approval to go live (cross your fingers)
- **What we need from PDS technical group**
  - Review and comments on mockups and search interface
  - Review usability test plan for appropriateness and completeness
  - Suggest additional test users from the Nodes

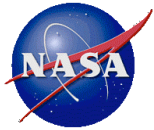


# Review Limitations

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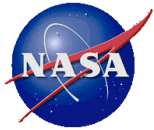
- **Materials to review**
  - Mockups of proposed site navigation
  - Mockups of faceted search prototype
  - Usability test plan
- **Scope of review**
  - Mockups show navigation, but not visual design
    - (Like a floor plan instead of an architectural model)
  - Search prototype is based on PDS catalog from November
    - (Does not have any data sets marked “in peer review”)
- **To review in separate session(s)**
  - Implementation strategy and plan
  - Visual design mockups



# Usability Testing



- **Two purposes of usability testing**
  - Find usability defects and fix them
  - Show that interfaces meets requirements
- **Low-cost usability testing**
  - For finding flaws, only need to test with 3 to 5 users
  - Better to do multiple iterations rather than testing more users
  - Goal: Find most defects before implementation
- **Limitations of low-cost usability testing**
  - Cannot tell you quantitatively *how good* an interface is
  - Small sample size rules out statistical tests
  - (But you usually don't care)
- **Informal usability testing already performed**
  - 3 planetary scientists at Ames and SETI
  - 3 other research scientists (non-planetary) who were handy
  - A few Node personnel
  - Results: Several flaws found, most of which have been addressed

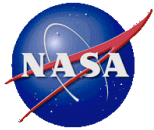


# Usability Test Plan

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- **Background**
  - Usability test plan forms acceptance criteria (from the usability standpoint)
  - Test tasks drawn from use cases, to reflect actual user tasks
- **How used**
  - Test user given test tasks to perform
  - User is observed (but not helped) performing the tasks
  - Success/failure and task duration are measured
  - Problem areas (and slow tasks) are areas for refinement
- **Status**
  - Usability test plan now reflects major use cases
  - Needs review to ensure appropriateness and completeness
- **Next steps**
  - Review by PDS technical group and other Node staff (May/June)
  - Use in more further usability tests (3-5 users, iteratively) (June)
  - Formal usability testing against implemented design, and report (July/August)

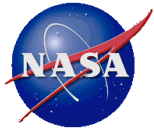


## Reviewing the Usability Test Plan

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- **Appropriateness of test scenarios (section 4)**
  - Test plan currently has 16 test scenarios
  - Does the scenario represent a valid user goal?
  - Is the scenario formulated in words and phrasing that a user would employ?
  - Does the scenario assume an appropriate context for the user's task?
  - Does the scenario have the right outcome? (For example, does it stop too early, prior to the final step a user would actually perform? Or, does it continue beyond the point at which a user would have the right data?)
- **Completeness of test scenarios (section 4)**
  - Do the test scenarios adequately cover the kind of goals your users have?
  - Can you think of a user request that you handled recently that was fundamentally different than anything in the test scenarios?
- **Valid representation of user roles (section 3.1)**
  - Are there other roles that should be tested?
- **Other comments/concerns?**



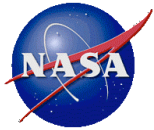
## Proposed Content

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- **New mockups / site map**
  - Mockups available live at Ames: <http://ti.arc.nasa.gov/pds/>
  - Site map updated to reflect current mockups
- **Content status**
  - Performed some usability tests against actual users
  - Reviewed earlier versions with select members of the PDS Nodes, including UI Working Group
- **Next steps**
  - Review with technical group (May/June)
  - More user testing and refinement, using usability test plan (June)
  - Visual design and review (June)
  - Implementation (July)
  - Usability testing against final design (July/August)



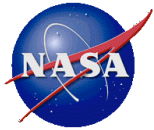


## Reviewing Proposed Content

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- **Missing mockups?**
  - Are there mockups you need to see that are not yet available? Let me know and I'll add them.
- **Page-level questions: for each page...**
  - Is it clear where I am in the site?
  - Is it clear what the page is trying to tell me?
  - Is it clear what I can do on this page? (Where I can go, what I can click?)
  - Once I click/type, does the new page/information seem like the right outcome?
- **Global questions**
  - Is the site structure clear?
  - Do any pages seem to be in the wrong section?
  - Is any section too broad or narrow?
  - Is there a different structure that makes more sense to you?
- **Search questions**
  - Is it clear how to start a search?
  - Is it clear how to refine a search?
  - Do the results make sense?



## Summary

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- **What we need now**
  - Review and comments on navigation and search prototype
  - Review and comments on appropriateness and completeness of usability test plan
- **What's coming**
  - Feedback on user testing and refinements
  - Visual design proposals and review
  - Review of implementation and transition plan