One NASA: Sharing Knowledge through an Agency-wide Process Asset Library (PAL)

This poster session will cover the key purpose and components behind implementing the NASA PAL website. This session will present the current results, describing the process used to create the website, the current usage measure, and will demonstrate how NASA is truly becoming ONE. The target audience for the poster session includes those currently implementing the CMMI model and looking for PAL adoption techniques.

To continue to be the leader in space, science and technology, NASA is using this agency-wide PAL to share knowledge, work products and lessons learned through this website. Many organizations have failed to recognize how the efforts of process improvement fit into overall organizational effort. However, NASA as an agency has adopted the benefits of process improvement by the creation of this website to foster communication between its ten centers. The poster session will cover the following topics outlined below:

- Website purpose
- Characteristics of the website
- User accounts status
- Website content size
- Usage percentages
National Aeronautics and Space Administration (NASA)

One NASA: Sharing Knowledge through an Agency-wide Process Asset Library (PAL)

Baraka J. Truss
NASA, Marshall Space Flight Center
Flight Software Branch
Topics

- NASA PAL Background
- Website Purpose
- Characteristics of the Website
- Website Content Size
- Usage Percentages
- PAL Snapshots
NASA PAL Background

- The NASA PAL is a task of the Continuous Improvement subgroup of the NASA Software Working Group.
  - This subgroup is headed up by Jeff Phillips of Johnson Space Center.
  - Baraka J. Truss is a member of this subgroup.
  - This subgroup provided requirements for the NASA PAL.

- Marshall Space Flight Center (MSFC) developed, piloted, and administers the PAL website.
Website Purpose

- The purpose of the NASA PAL website is to provide relevant software engineering information to the NASA software community.

- The NASA PAL has two goals:
  - Encourage sharing of software engineering assets within the agency.
  - Provide a repository of software engineering assets.
Work scenario Before the Process
Asset Library (PAL)

I have to do a trade study for these COTS tools, and I have no idea how to get started!

I’ve got to write a Software Development Plan. Anybody got one I can copy?

Either of you two know how to estimate software?
Work scenario **After the development of the PAL**

The PAL also has a "how-to" procedure for trade studies.

You guys were right! The PAL does have a Software Development Plan template. And I found a sample Plan just right for my program.

This morning I'm taking on-line training for Software Estimating. It's right in the PAL.
Characteristics of the Website

- The PAL website is based on a free, open-source content management system.
- The Uniform Resource Locator is http://swpal.nasa.gov and it is accessible only from within the 10 NASA centers.
  - Hosted on a MSFC server under approved Information Technology security plan.
- Minimal customization of the “out-of-the-box” allows for easy development/maintenance.
- Anonymous users of the site, i.e., without login, can browse, view, search, and download all published content.
Website Content Size

- There are approximately 250 files/documents loaded on the PAL. Additionally, there are many links to both internal and external sources.

- The PAL has multiple views including:
  - by software lifecycle phases
  - by software engineering/documentation categories
  - by agency-wide products/policies
  - by individual NASA center
  - by Capability Maturity Model Integration (CMMI) process areas
Content Categories

- **Life-Cycle**
  - contains sub-folders for content related to software lifecycle areas, as suggested by the NASA PAL Website Requirements

- **Category**
  - contains sub-folders for content related to types of software documentation

- **Agency**
  - contains sub-folders for content related to agency-level software standards, policy, requirements

- **Center**
  - contains sub-folders for content that are provided by each of the 10 NASA centers

- **CMMI**
  - contains sub-folders for documentation for implementation in the CMMI staged Level 2 and 3 Process Areas
Usage Percentages

There have been over 6100 visits to the PAL website since the first part of February, 2005. Percentages of visits to the major tabs or folders are:

- Home only – 16%
- Lifecycle – 14%
- Category – 10%
- Agency – 7%
- Center – 39%
- CMMI – 13%
- Feedback – 1%

- These percentages are flawed, to some degree, in that the counters increment for all visits, e. g. the administrator. However, they give some indication of use.
One NASA: Sharing Knowledge through an Agency-wide Process Asset Library (PAL)
Welcome to the NASA Software Process Asset Library (PAL)

The NASA PAL has two goals:

1. Encourage sharing of software engineering assets within the agency.
2. Provide a repository of software engineering needs.

Created by Padmin
Last modified 2005-05-05 01:36 PM
Agency

- Up one level

- Standards

  The Standards folder contains agency-level software standards.

- Policies

- Tools

- Guidebooks
Feedback

Please provide comments on the PAL. Just click the "Add Comment" button to start a new discussion (thread) or click the "Reply to this" button to add a comment in an ongoing thread. The Administrator of the website will periodically remove old and inactive threads.

You must have an account/password and be logged in to provide comments.

Feedback

This method of providing feedback on this PAL website requires login. Is this too restrictive? Currently, only those users designated for loading content have (or will have) accounts. All others, on-site at the NASA centers, may view content.

Replies to this comment

- restrictive comments (Posted by whitach at 2005-04-13 09:16 AM)
- Problem (Posted by gsettle at 2005-04-13 09:26 AM)

Cost Estimator

I downloaded the cost estimator and the application seems to work great! Bob Stevens
Contact Information

Baraka J. Truss
NASA, Marshall Space Flight Center
Flight Software Branch
Huntsville, Alabama 35812

Phone: 256-544-4477
Email: baraka.j.truss@nasa.gov