https://ntrs.nasa.gov/search.jsp?R=20060046497 2019-08-29T23:51:40+00:00Z

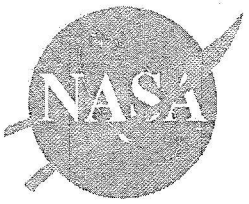
Source of Acquisition
NASA Marshall Space Flight Center

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



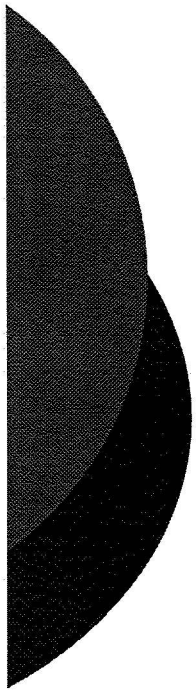
National Aeronautics and Space Administration (NASA)

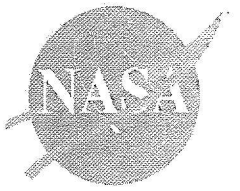
One NASA: Sharing Knowledge through an Agency-wide Process Asset Library (PAL)

Baraka J. Truss

NASA, Marshall Space Flight Center

Flight Software Branch



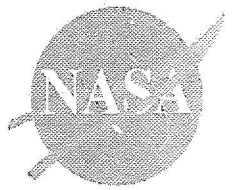


Topics

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

NASA PAL Background

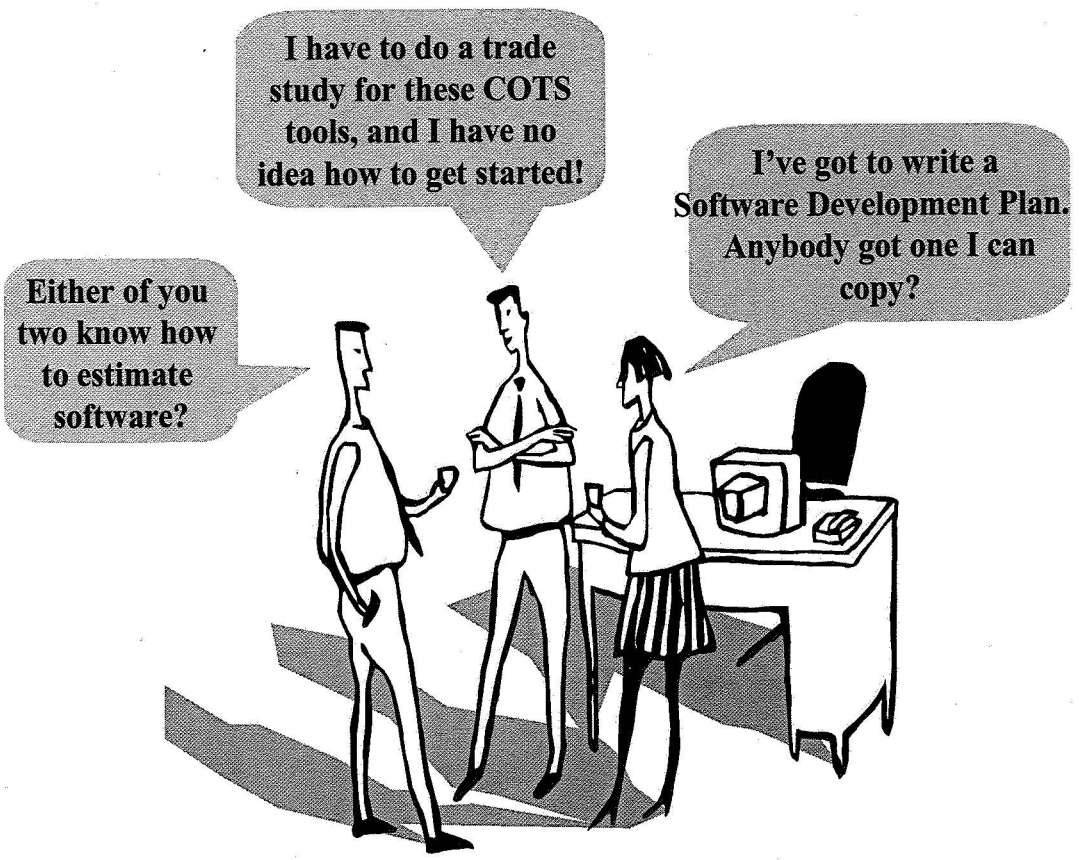
- The NASA PAL is a task of the Continuous Improvement subgroup of the NASA Software Working Group.
  - This subgroup is headed up by Jeff Phillips of Johnson Space Center.
  - Baraka J. Truss is a member of this subgroup.
  - This subgroup provided requirements for the NASA PAL.
- Marshall Space Flight Center (MSFC) developed, piloted, and administrates the PAL website.



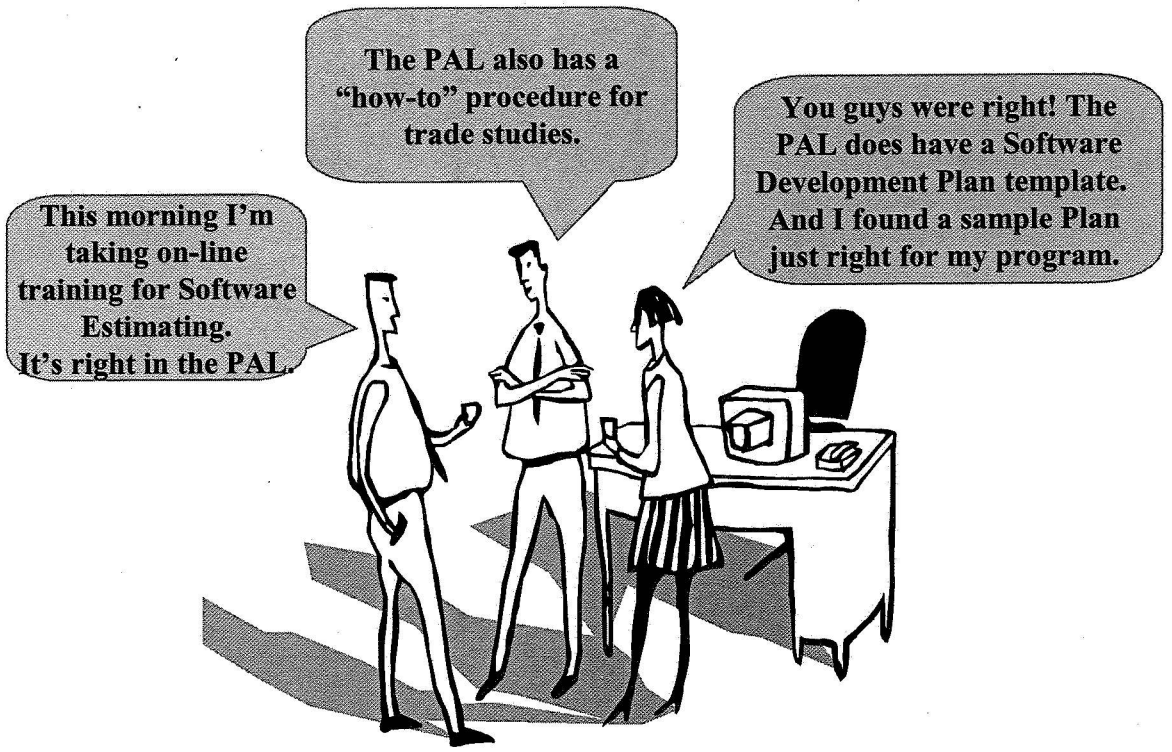
Website Purpose

- 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)



Work scenario After the development of the PAL



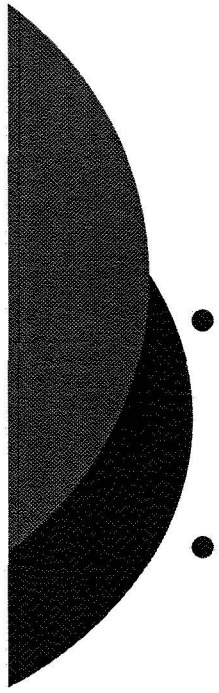
Characteristics of the Website

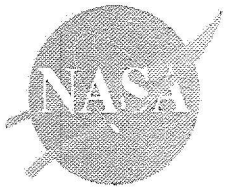
- The PAL website is based on a free, open-source content management system.
- The Uniform Resource Locator is http://swpal.nasa.gov and it is accessible only from within the 10 NASA centers.
  - Hosted on a MSFC server under approved Information Technology security plan.
- Minimal customization of the "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.

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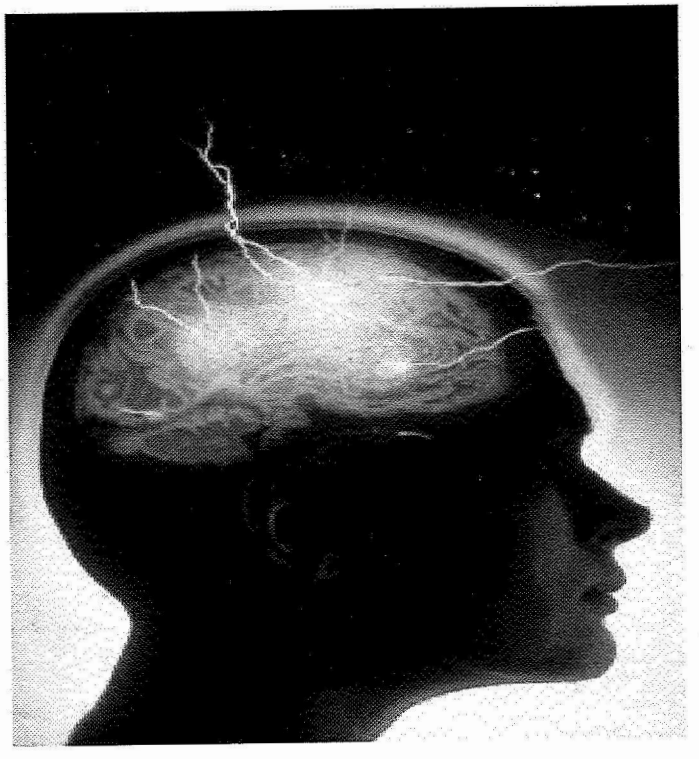
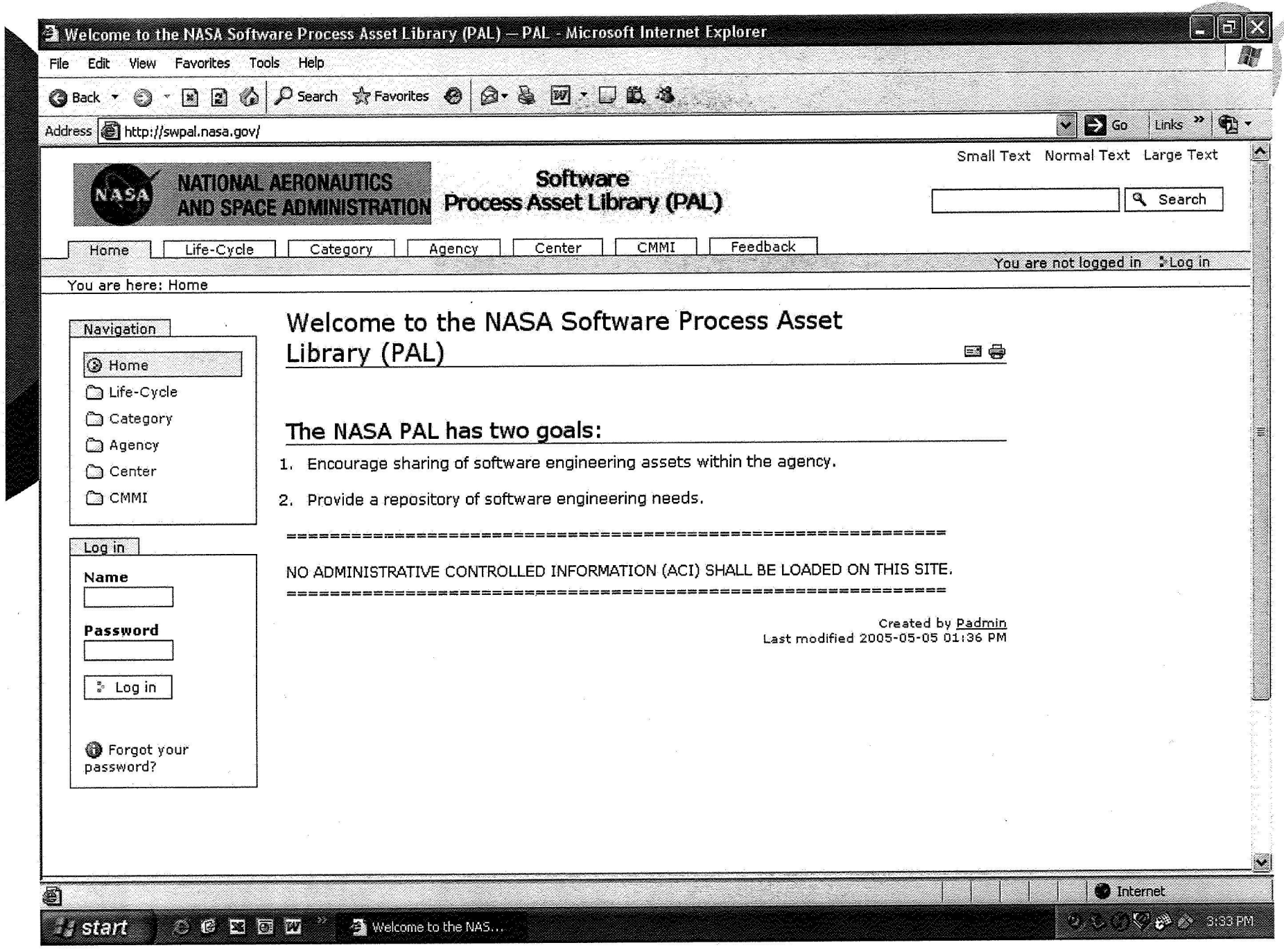
Snapshots



Snapshots


Welcome to the NASA Software Process Asset Library (PAL) — PAL - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://swpal.nasa.gov/
Go Links
Small Text Normal Text Large Text
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Software Process Asset Library (PAL)
Search
Home Life-Cycle Category Agency Center CMMI Feedback
You are not logged in Log in
You are here: Home
Navigation
Home
Life-Cycle
Category
Agency
Center
CMMI
Log in
Name
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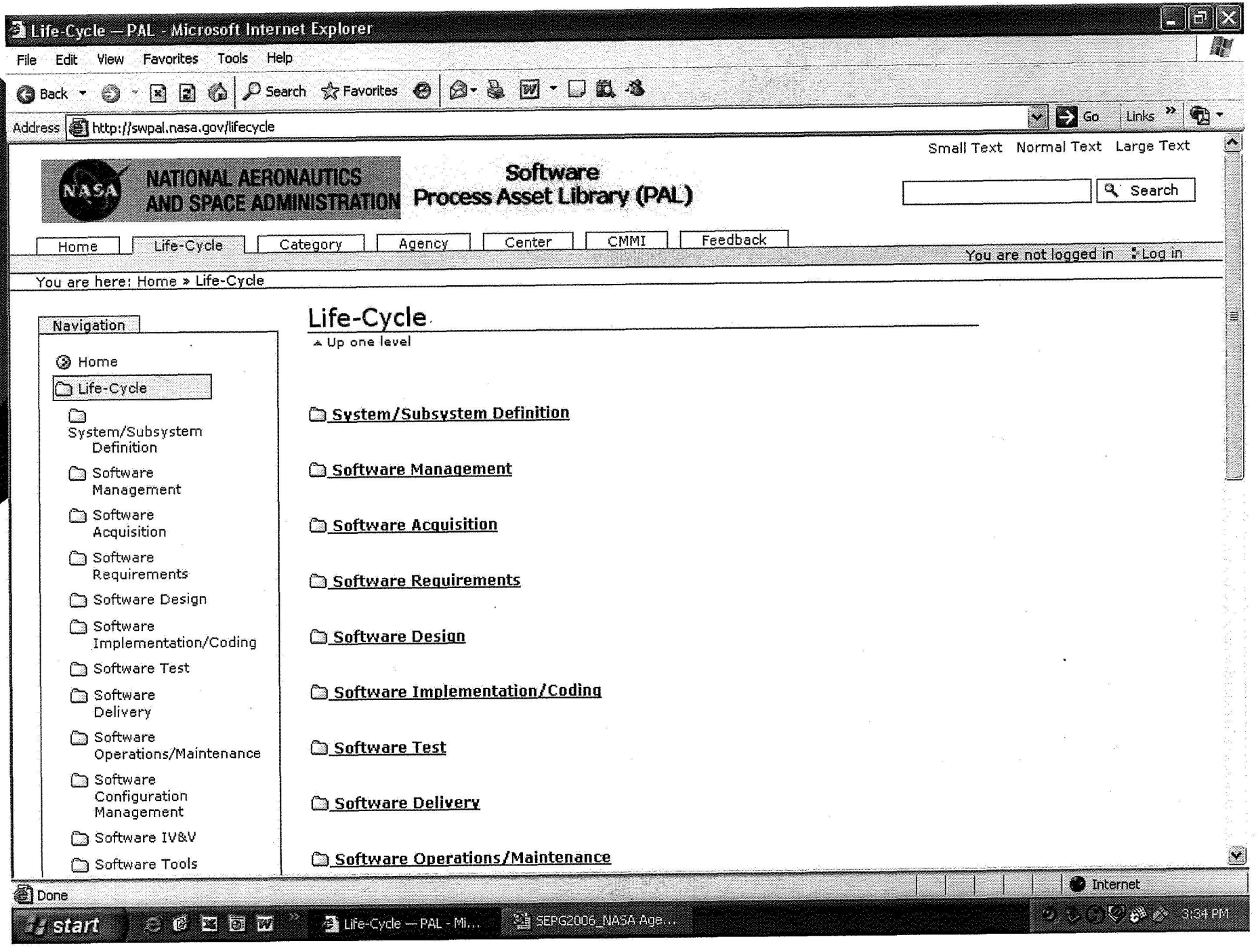
Log in
Forgot your password?
Welcome to the NASA Software Process Asset Library (PAL)
The NASA PAL has two goals:
1. Encourage sharing of software engineering assets within the agency.
2. Provide a repository of software engineering needs.
==========
NO ADMINISTRATIVE CONTROLLED INFORMATION (ACI) SHALL BE LOADED ON THIS SITE.
==========
Created by Padmin
Last modified 2005-05-05 01:36 PM
Internet
start
Welcome to the NAS...
3:33 PM


Life-Cycle — PAL - Microsoft Internet Explorer
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Software Process Asset Library (PAL)
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Home Life-Cycle Category Agency Center CMMI Feedback
You are not logged in Log in
You are here: Home » Life-Cycle
Navigation
Home
Life-Cycle
System/Subsystem Definition
Software Management
Software Acquisition
Software Requirements
Software Design
Software Implementation/Coding
Software Test
Software Delivery
Software Operations/Maintenance
Software Configuration Management
Software IV&V
Software Tools
Life-Cycle
Up one level
System/Subsystem Definition
Software Management
Software Acquisition
Software Requirements
Software Design
Software Implementation/Coding
Software Test
Software Delivery
Software Operations/Maintenance
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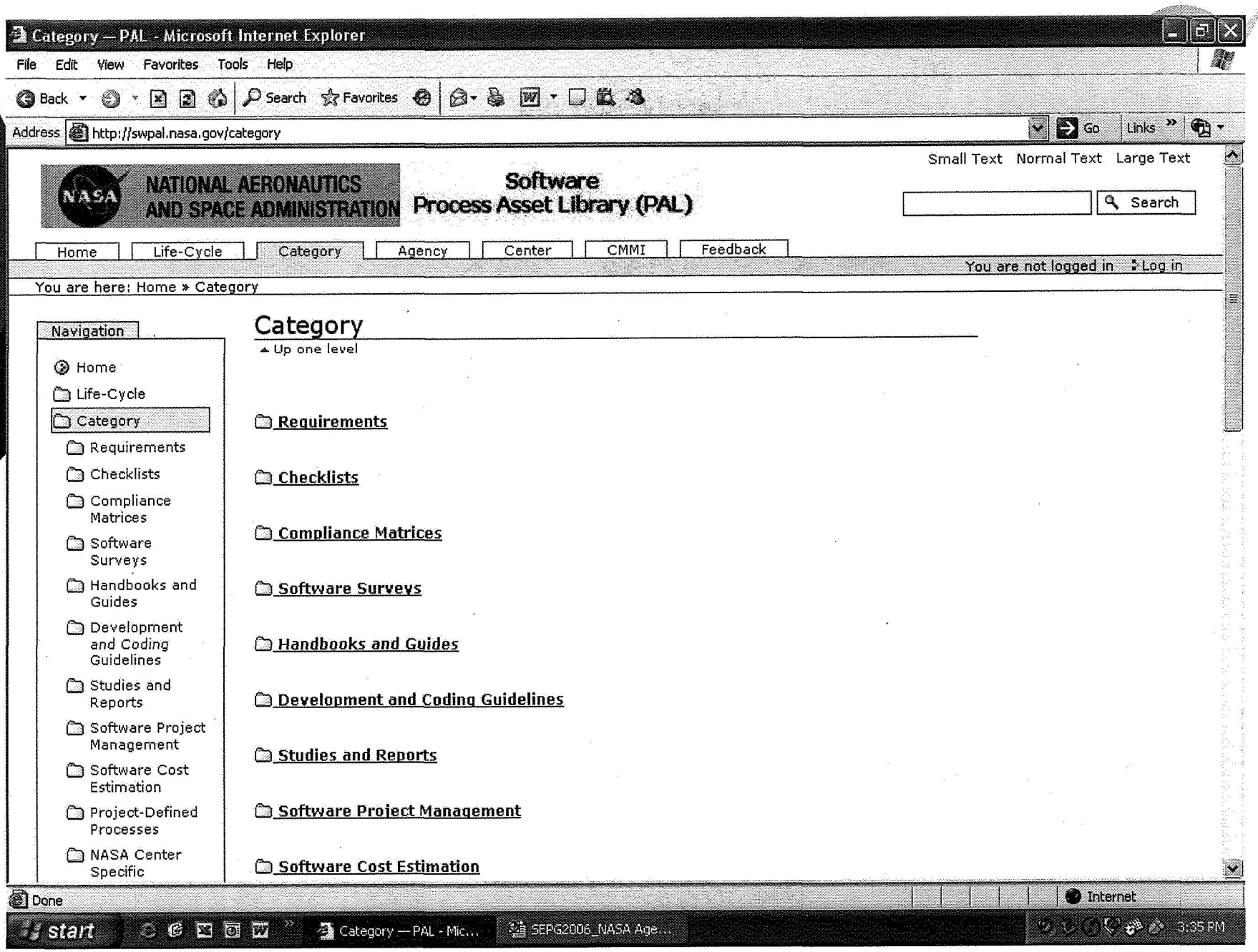
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Life-Cycle
Category
Requirements
Checklists
Compliance Matrices
Software Surveys
Handbooks and Guides
Development and Coding Guidelines
Studies and Reports
Software Project Management
Software Cost Estimation
Project-Defined Processes
NASA Center Specific
Category
Up one level
Requirements
Checklists
Compliance Matrices
Software Surveys
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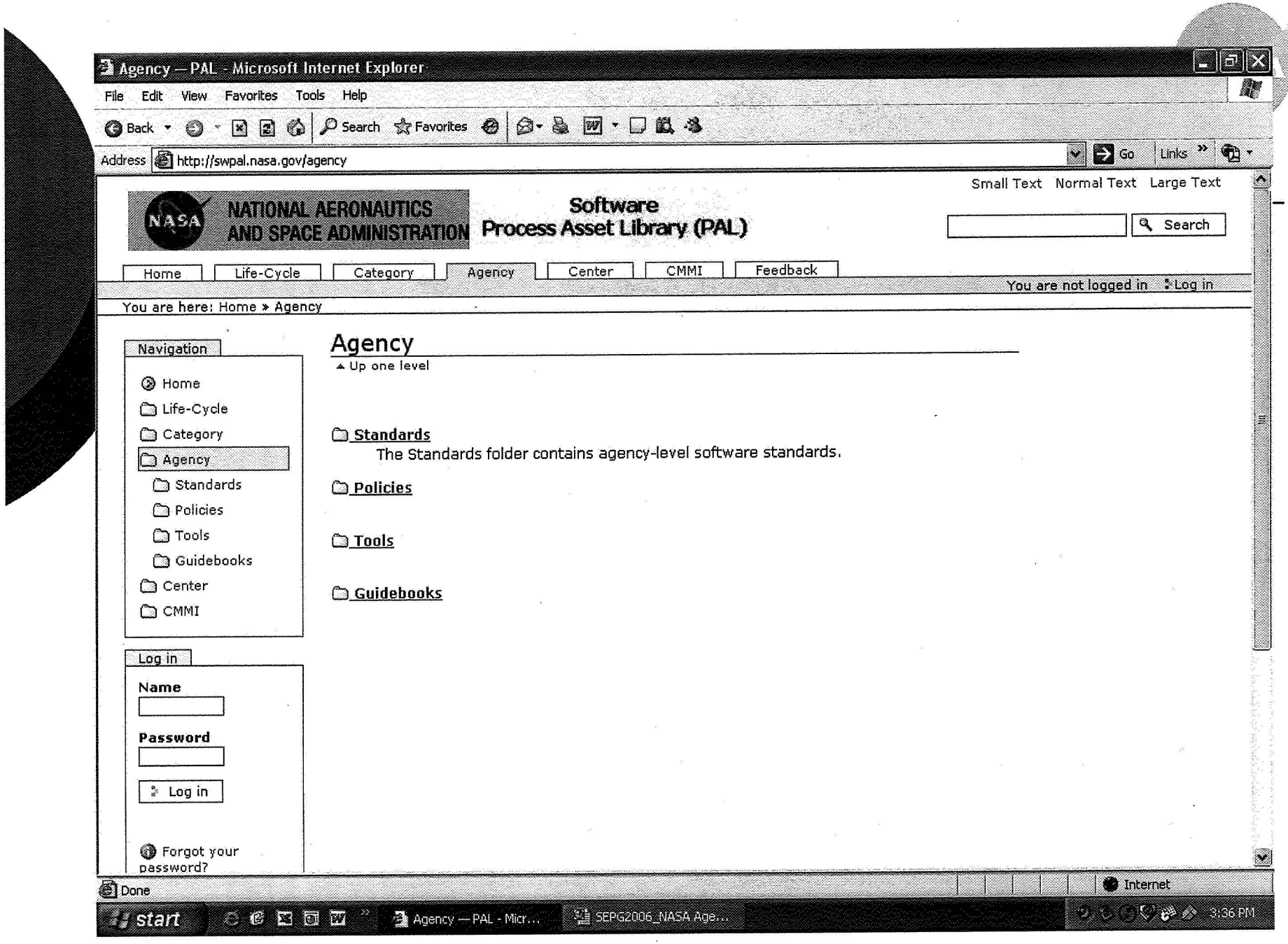
Agency — PAL - Microsoft Internet Explorer
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Standards
Policies
Tools
Guidebooks
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Up one level
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The Standards folder contains agency-level software standards.
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Tools
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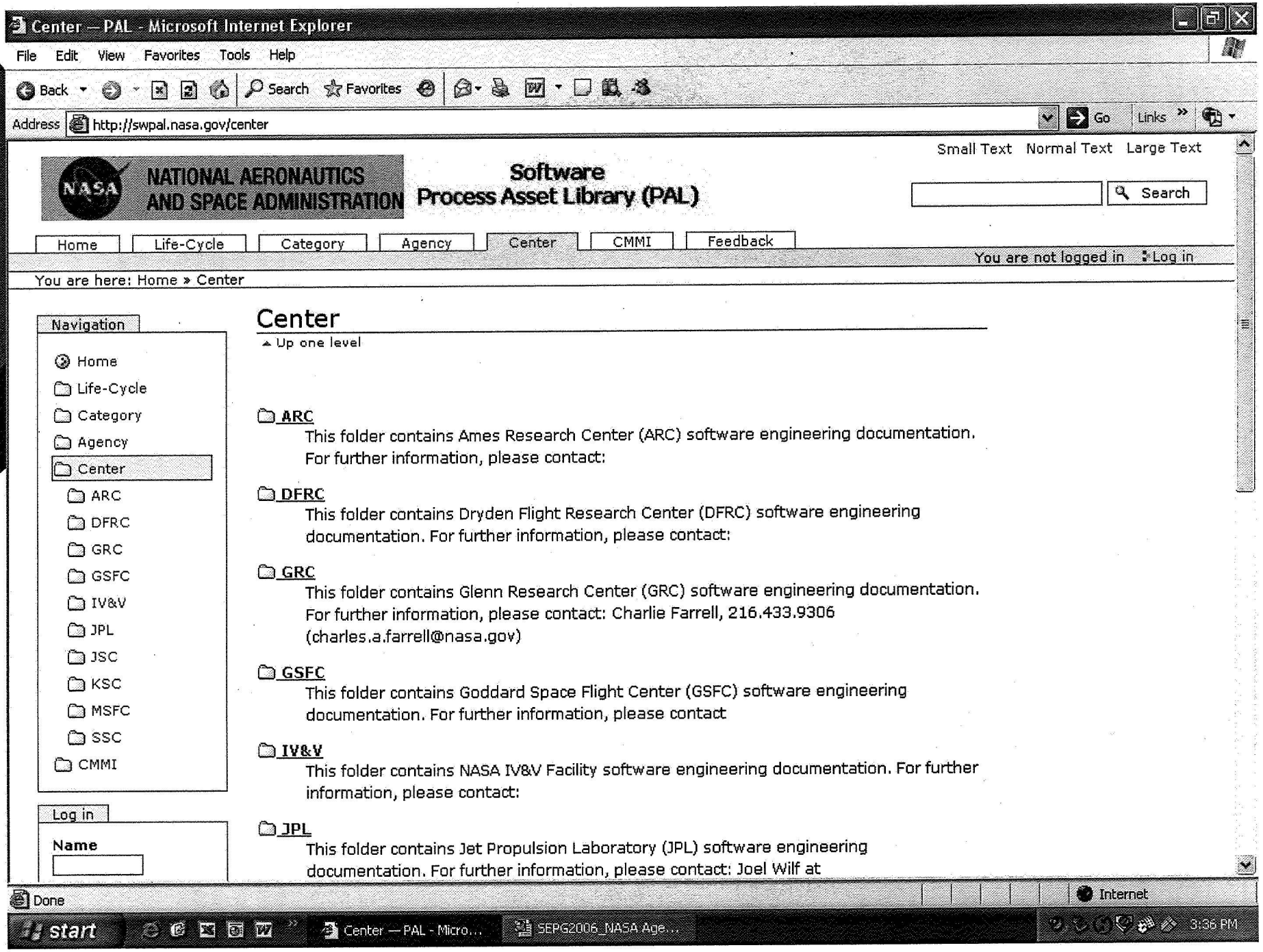
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IV&V
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Log in
Name
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Up one level
ARC
This folder contains Ames Research Center (ARC) software engineering documentation. For further information, please contact:
DFRC
This folder contains Dryden Flight Research Center (DFRC) software engineering documentation. For further information, please contact:
GRC
This folder contains Glenn Research Center (GRC) software engineering documentation. For further information, please contact: Charlie Farrell, 216.433.9306 (charles.a.farrell@nasa.gov)
GSFC
This folder contains Goddard Space Flight Center (GSFC) software engineering documentation. For further information, please contact
IV&V
This folder contains NASA IV&V Facility software engineering documentation. For further information, please contact:
JPL
This folder contains Jet Propulsion Laboratory (JPL) software engineering documentation. For further information, please contact: Joel Wilf at
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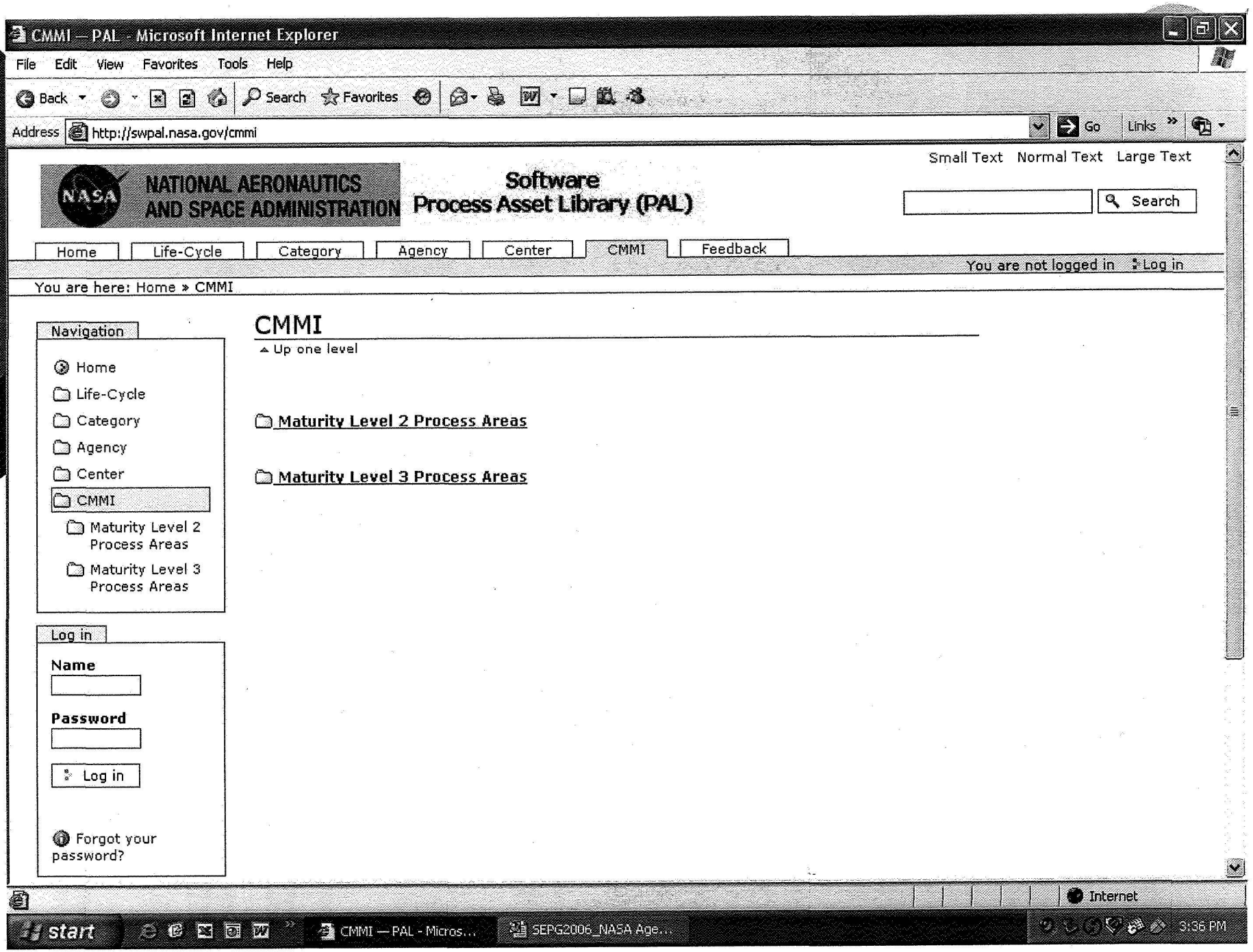
CMMI — PAL - Microsoft Internet Explorer
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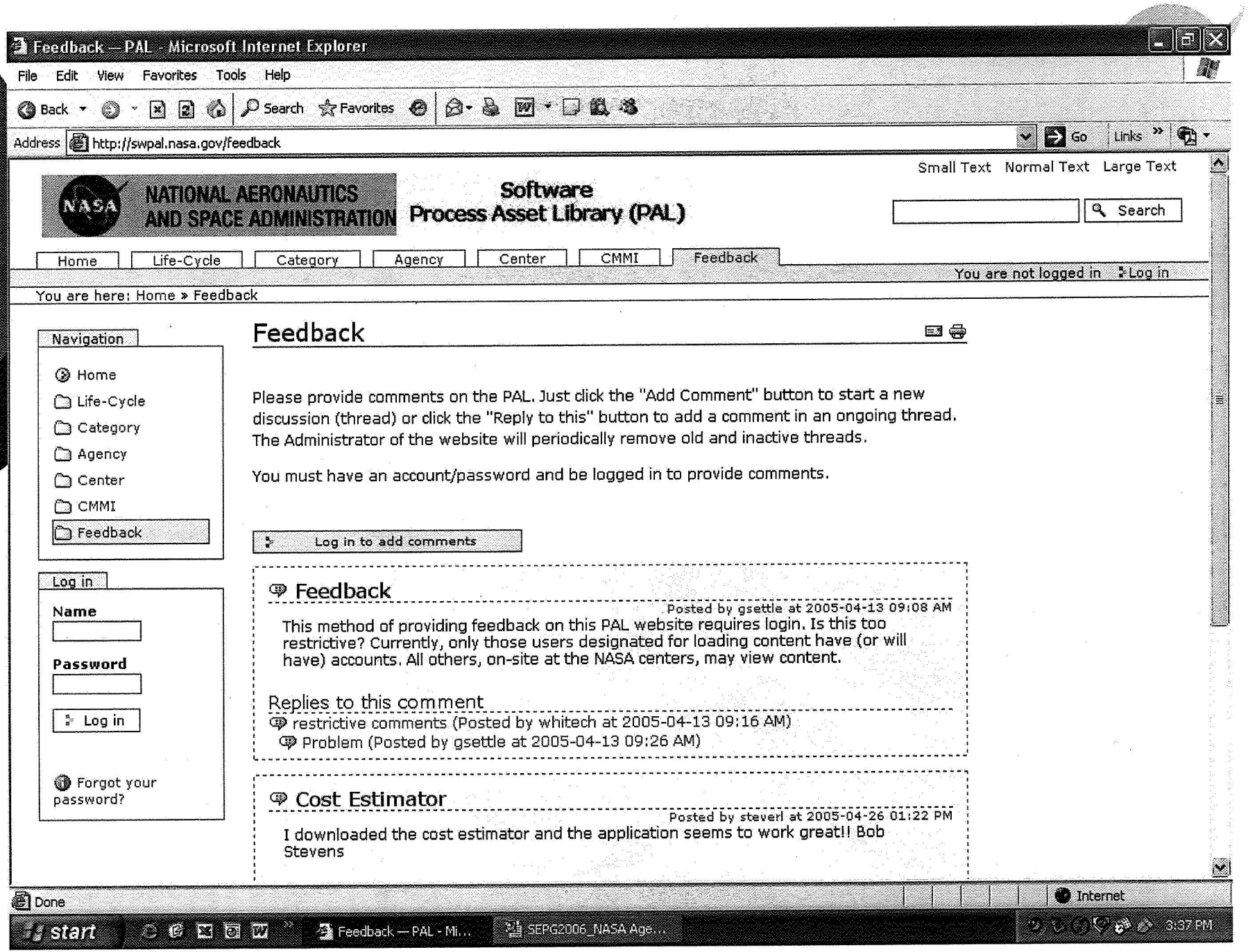
Feedback — PAL - Microsoft Internet Explorer
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Log in
Name
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Log in
Forgot your password?
Feedback
Please provide comments on the PAL. Just click the "Add Comment" button to start a new discussion (thread) 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.
Log in to add comments
Feedback
Posted by gsettle at 2005-04-13 09:08 AM
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 whitech at 2005-04-13 09:16 AM)
Problem (Posted by gsettle at 2005-04-13 09:26 AM)
Cost Estimator
Posted by steverl at 2005-04-26 01:22 PM
I downloaded the cost estimator and the application seems to work great!! Bob Stevens
Done
Internet
start
Feedback — PAL - Mi...
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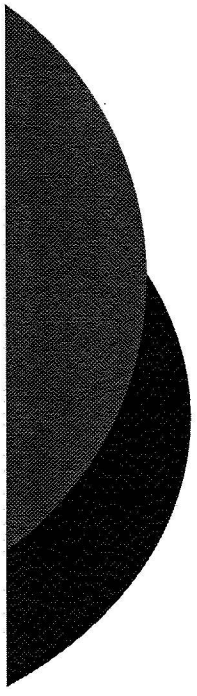
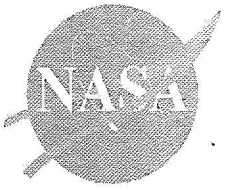
3:37 PM





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Email: baraka.j.truss@nasa.gov