

# Improvement Subprocesses Management Using Process Libraries and Electronic Handbooks



(Where Shakespeare Meets Freud)



## Quick Summary



Dr. Barry E. Jacobs  
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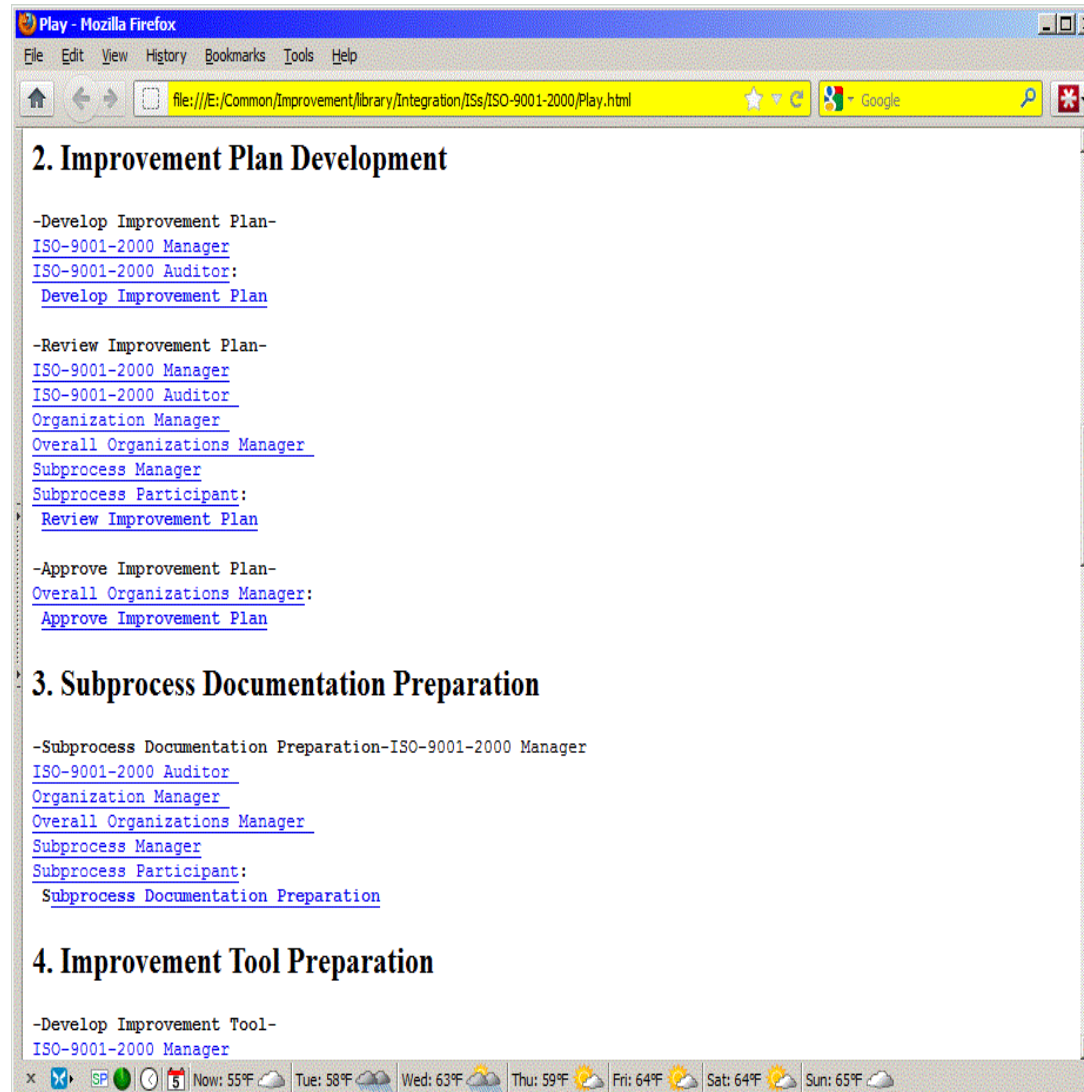
## **The Bottom Line:**

**We believe that to truly understand one's universe, one must see it thru multiple “eyes” and also have tools to “communicate” these views.**

**To do this, we propose editable and cost-saving process documentation “plays”  
for process developers and participants  
to help them quickly and effectively learn, integrate, test,  
teach, and work together.**

**These “plays” may be added to new or existing systems.**

# Plays describe subprocess execution.



## **Benefits:**

- Facilitates the collection of system and organizational requirements,**
- Does not anger/upset people whose opinions are heard,**  
**and**
- Increases the interaction between managers, process developers, and participants.**

**For each subprocess, an “Integration View” is the integration or combination of other subprocess views. An “Integration View” facilitates intra- and inter-organization communication.**



# **All the world's a stage ...**

**Jaques:**

**All the world's a stage,  
And all the men and women merely players;  
They have their exits and their entrances,  
And one man in his time plays many parts,  
His acts being seven ages.**

**William Shakespeare**

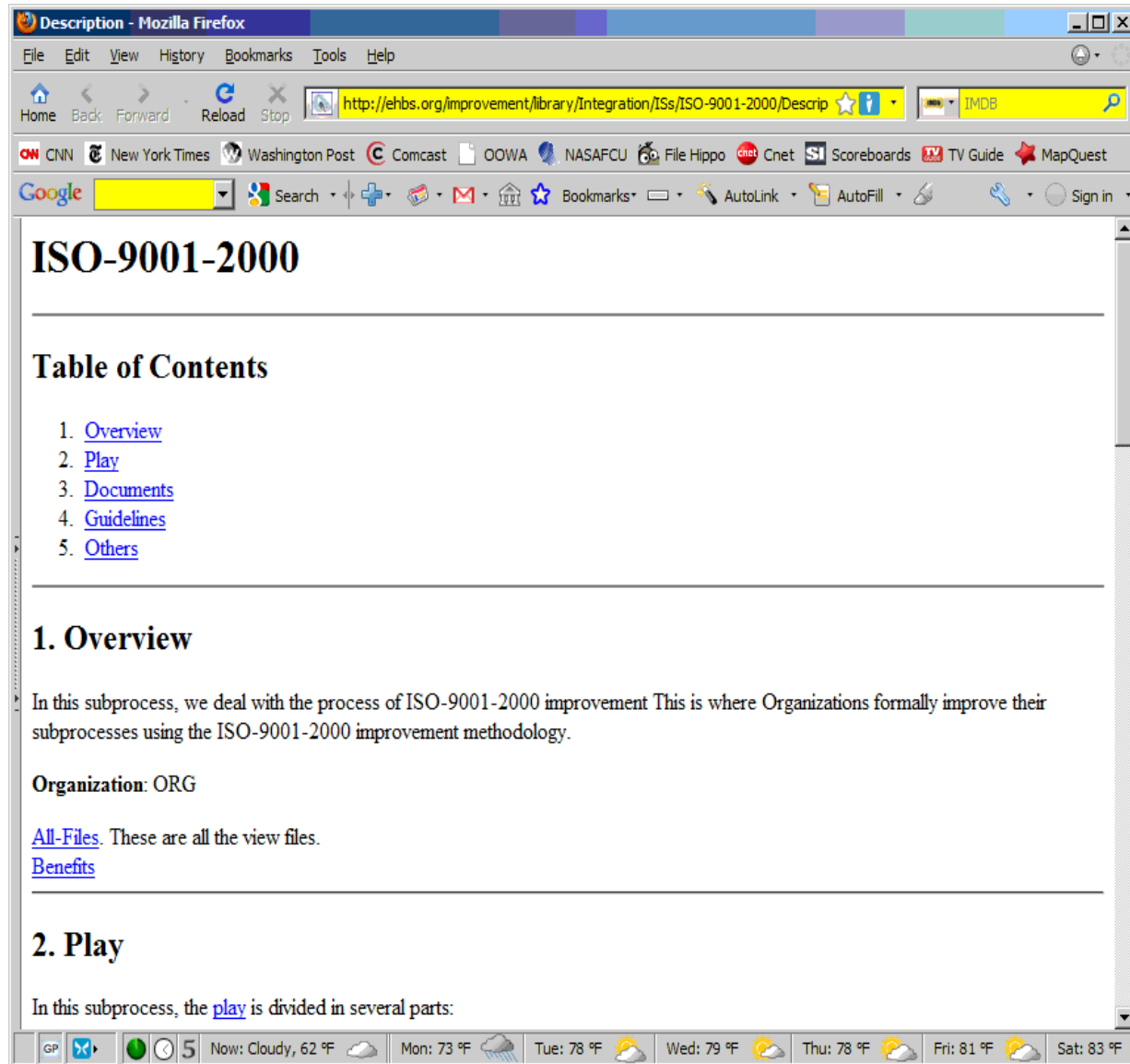
**As You Like It, Act 2, Scene 7.**

**The approach uses a modernization of the Socratic Method or Dialogue to gain consensus between Teachers, Documentors, Managers, Implementors, and Participants.**





# Descriptions summarize subprocesses.



The screenshot shows a Mozilla Firefox browser window with the address bar displaying <http://ehbs.org/improvement/library/Integration/ISs/ISO-9001-2000/Descrip>. The page title is "Description - Mozilla Firefox". The page content includes a "Table of Contents" with links to Overview, Play, Documents, Guidelines, and Others. The "1. Overview" section describes the ISO-9001-2000 improvement process and lists links for "All-Files" and "Benefits". The "2. Play" section begins with the text "In this subprocess, the play is divided in several parts:". The browser's status bar at the bottom shows the current time as 5:00 and the weather as "Now: Cloudy, 62 °F", along with a forecast for the next six days.

**ISO-9001-2000**

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**Table of Contents**

1. [Overview](#)
2. [Play](#)
3. [Documents](#)
4. [Guidelines](#)
5. [Others](#)

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**1. Overview**

In this subprocess, we deal with the process of ISO-9001-2000 improvement This is where Organizations formally improve their subprocesses using the ISO-9001-2000 improvement methodology.

**Organization:** ORG

[All-Files](#). These are all the view files.  
[Benefits](#)

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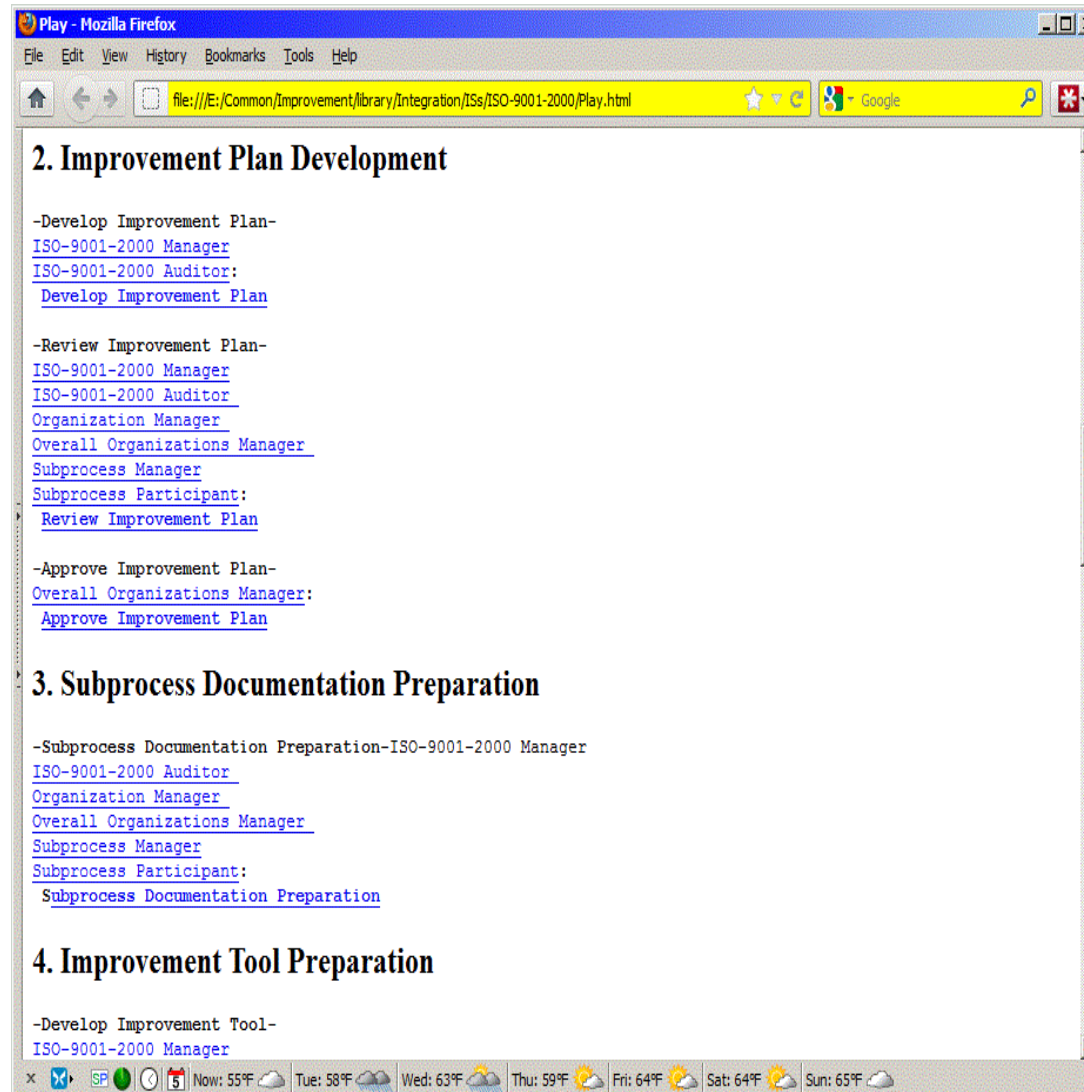
**2. Play**

In this subprocess, the [play](#) is divided in several parts:

GP 5 Now: Cloudy, 62 °F Mon: 73 °F Tue: 78 °F Wed: 79 °F Thu: 78 °F Fri: 81 °F Sat: 83 °F



# Plays describe subprocess execution.



# Documents describe subprocess data.

The screenshot shows a Mozilla Firefox browser window with the address bar displaying <http://ehbs.org/improvement/library/Integration/ISs/ISO-9001-2000/Descrip>. The page content is as follows:

### 3. Documents

In this subprocess, we have the following document types:

- [Improvement Plan](#). These are used to represent the Improvement Plan.
- [Subprocess Documentation](#). These are used to represent the documentation for a subprocess.
- [Staff Preparation Report](#). These are used to represent the Staff Preparation Report.
- [Improvement Tool](#). These are used to represent the Improvement Tool.
- [Audit Report](#). These are used to represent the Audit Report.
- [Recommendations Report](#). These are used to represent the Recommendations Report.
- [Improvements Implementation Report](#). These are used to represent the Improvement Implementation Report.

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### 4. Guidelines

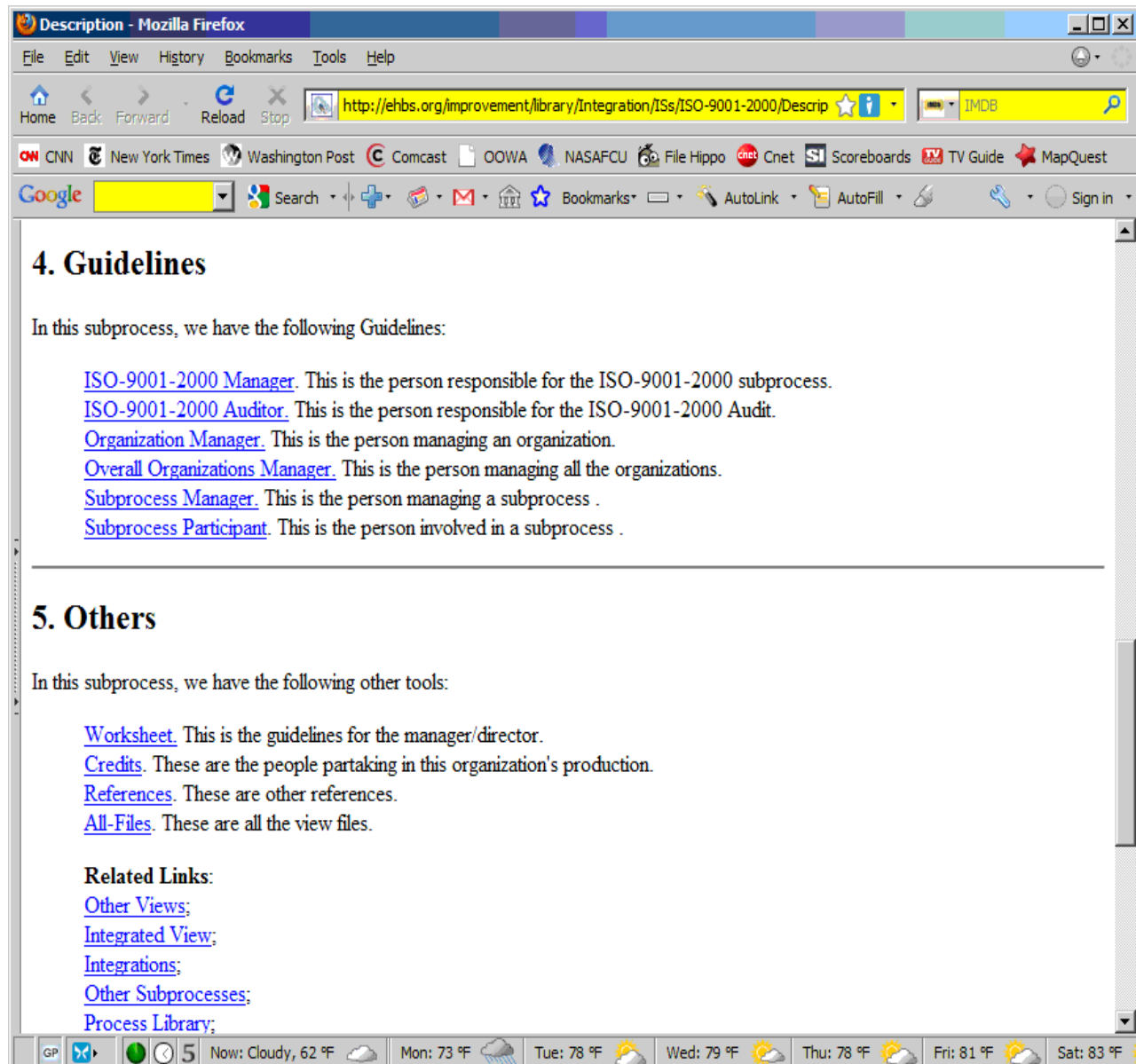
In this subprocess, we have the following Guidelines:

- [ISO-9001-2000 Manager](#). This is the person responsible for the ISO-9001-2000 subprocess.
- [ISO-9001-2000 Auditor](#). This is the person responsible for the ISO-9001-2000 Audit.
- [Organization Manager](#). This is the person managing an organization.
- [Overall Organizations Manager](#). This is the person managing all the organizations.
- [Subprocess Manager](#). This is the person managing a subprocess .
- [Subprocess Participant](#). This is the person involved in a subprocess .

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### 5. Others

# Guidelines describe user subprocesses.



The screenshot shows a Mozilla Firefox browser window. The address bar displays the URL <http://ehbs.org/improvement/library/Integration/ISs/ISO-9001-2000/Descrip>. The page content is as follows:

## 4. Guidelines

In this subprocess, we have the following Guidelines:

- [ISO-9001-2000 Manager](#). This is the person responsible for the ISO-9001-2000 subprocess.
- [ISO-9001-2000 Auditor](#). This is the person responsible for the ISO-9001-2000 Audit.
- [Organization Manager](#). This is the person managing an organization.
- [Overall Organizations Manager](#). This is the person managing all the organizations.
- [Subprocess Manager](#). This is the person managing a subprocess .
- [Subprocess Participant](#). This is the person involved in a subprocess .

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## 5. Others

In this subprocess, we have the following other tools:

- [Worksheet](#). This is the guidelines for the manager/director.
- [Credits](#). These are the people partaking in this organization's production.
- [References](#). These are other references.
- [All-Files](#). These are all the view files.

**Related Links:**

- [Other Views;](#)
- [Integrated View;](#)
- [Integrations;](#)
- [Other Subprocesses;](#)
- [Process Library;](#)

The browser's status bar at the bottom shows the current time as 5:00 and the weather as 'Now: Cloudy, 62 °F'. It also displays a forecast for the following days: Mon: 73 °F, Tue: 78 °F, Wed: 79 °F, Thu: 78 °F, Fri: 81 °F, and Sat: 83 °F.

# Subprocess Worksheets facilitate subprocess manager communication with process developers and participants.

Worksheet - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Home Back Forward Reload Print Stop file:///E:/8000-8999/nasa/flightprojects/summary/mock-ups/Worksheet.htm

IMDB

Subprocess Worksheet

Classification: Improvement Subprocesses (T6-00-00-00)  
Subprocess Type ISO-9001-2000 (T6-1-00-00)

Organization: IMAGE

Task	Purpose	Suggested Roles	Task Lead(s)	Estimated Completion Date	Actual Completion Date	Documents					
						Document	Instructions and Samples	Document Lead(s)	Estimated Completion Date	Actual Completion Date	Document Location(s)
Administration	The purpose of this task is to administer Phase D: Project Development .	Task Lead, Subtask Lead, Subtask Member, Reviewer, Approval Official, Project Manager, Documents Manager	James Green	07/23/07	08/23/07	Document Library	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
Project Technical Products	The purpose of this task is to provide Technical products for the Flight Project.	Phase D Manager, Project Manager, Program Manager, Organization Manager, Overall Projects Manager, Task Lead, Subtask Lead, Reviewer, Approval Official, Documents Manager	James Green	06/23/07	06/23/07	Missile System Pre-Launch Safety Package (Update)	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
						As-built Hardware and Software Documentation (Baseline)	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
						Verification and Validation Report (Baseline)	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
						Operations Handbook (Baseline)	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
						Reviews	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
						Approvals	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
Project Planning, Cost, and Schedule Products	The purpose of this task is to provide Planning, Cost, and Schedule products for the Flight Project.	Phase D Manager, Project Manager, Program Manager, Organization Manager, Overall Projects Manager, Task Lead, Subtask Lead, Reviewer	James Green	07/23/07	07/23/07	Work Agreement for Next Phase (Baseline)	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>
						Reviews	<a href="#">Instructions and Samples</a>	James Green	06/23/07	07/23/07	<a href="#">Library: NS2034</a>

D... Now: Sunny, 68° F Tue: 86° F Wed: 86° F Thu: 87° F Fri: 85° F Sat: 81° F Sun: 82° F

# References list other related resources.



# Credits acknowledge people's contributions.



# Tools that can be focused on during stages- by tool.

Tools To Focus On During Stages. - Mozilla Firefox

File Edit View History Bookmarks Tools Help

ehbs.org/intro/summary/stages1.html

Google

## Tools To Focus On During Stages- By Tool.

Tool	Process Developer	Process Participant
Descriptions:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together
Plays:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together
Documents:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together
Role Guidelines/EHBs:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together
Subprocess: Worksheets:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together
References:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together
Credits:	Learn, Integrate, Test, Teach, Work Together	Learn, Integrate Documents Using Role Guidelines/EHBs, Test, Teach, Work Together



# Tools that can be focused on during stages- by stage.

Tools To Focus On During Stages. - Mozilla Firefox

File Edit View History Bookmarks Tools Help

ehbs.org/intro/summary/stages2.html

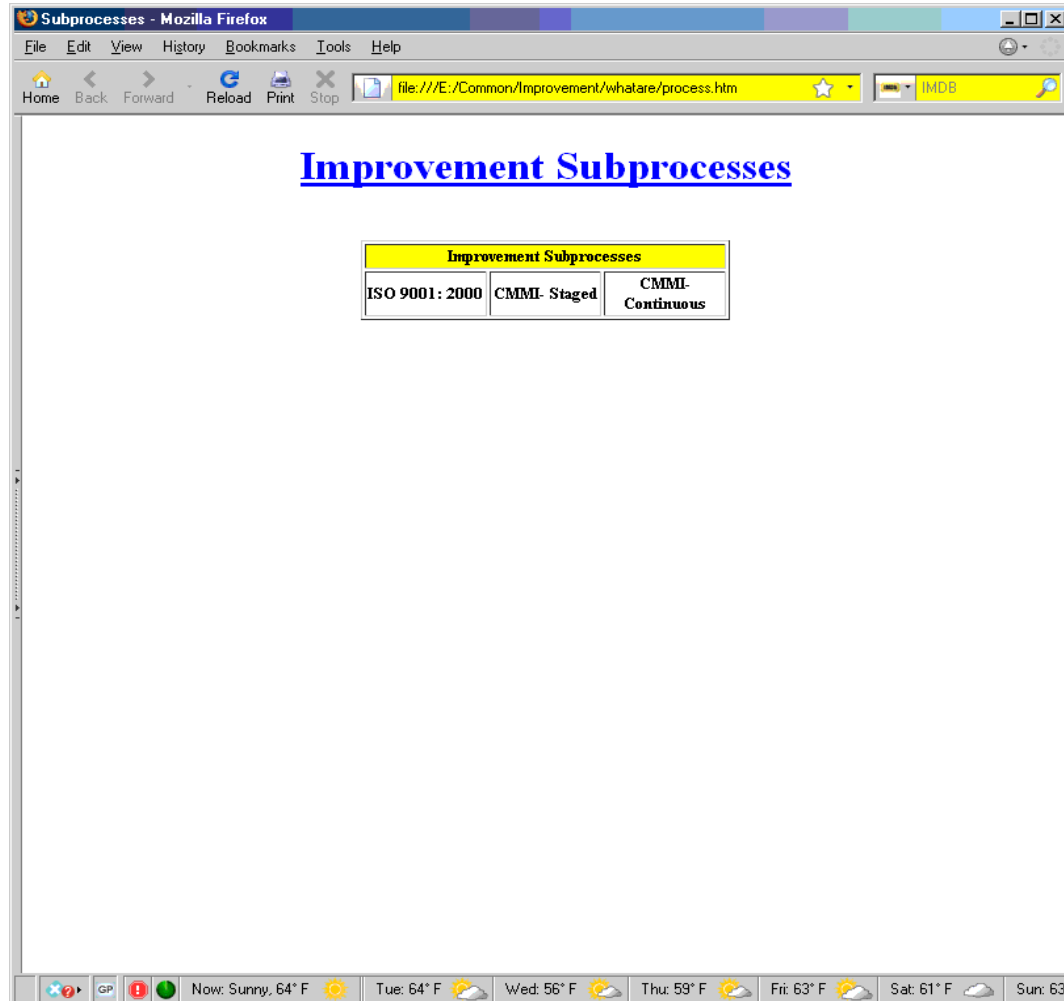
Google

### Tools To Focus On During Stages- By Stage.

Stage	Process Developer	Process Participant
Learn	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.
Integrate	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.	Documents Using Role Guidelines/EHBs.
Test	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.
Teach	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.
Work Together	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.	Descriptions, Plays, Documents, Role Guidelines/EHBs, Subprocess Worksheets, References, and Credits.

# Objective:

## Develop Internet-based tools to support the paperless documentation and management of complex distributed processes.



**Organizations provide different views of the subprocesses, some of which may be proprietary.**

NASA Flight Programs/Missions Organizations - Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///E:/8000-8999/nasa/flightprojects/whatare/Organizations.htm

Amazon.com

## NASA Flight Projects/Missions Organizations

Product Realization Subprocesses Organizations
ACRIMSAT Mission
Aura Mission
Cassini-Huygens Mission
Chandra X-ray Observatory
Cosmic Hot Interstellar Plasma Spectrometer (CHIPS)
Cluster ESA/NASA Mission
Deep Impact
ISS Expedition 10
Fast Auroral Snapshot Explorer (FAST)
Far Ultraviolet Spectroscopic Explorer (FUSE) Mission
Galaxy Evolution Explorer (GALEX) Mission
Geostationary Operational Environmental Satellite Program (GOES) - Organization Subprocess Formulation
Geotail Mission
Gravity Probe B (GPB) Mission
Gravity Recovery and Climate Experiment
High Energy Transient Explorer-2 (HETE-2) Mission
Hubble Space Telescope
Ice Cloud and Land Elevation Satellite (ICESat) Mission
Imager for Magnetopause-to-Aurora Global Exploration (IMAGE)
James Webb Space Telescope (JWST)
INTERNATIONAL Gamma-Ray Astrophysics Laboratory (INTEGRAL)
Lunar Reconnaissance Orbiter (LRO)
Mars Exploration Rover - Opportunity
Mars Exploration Rover - Spirit
Mars Global Surveyor
Mars Reconnaissance Orbiter (MRO)
MERCURY, Surface, Space Experiment, GEOchemistry and Ranging (MESSENGER) Mission
Muses-C
NOAA-M Environmental Satellite
Polar Mission
Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESST)
Rosetta Mission

Now: 82°F Sat: 88°F Sun: 78°F Mon: 76°F Tue: 80°F Wed: 81°F Thu: 80°F

# **Organizations execute the eight “Play Development” stages.**

- 1) summarizing (descriptions),**
- 2) playwriting (outlines),**
- 3) staging (mockups),**
- 4) dress rehearsal (implementations),**
- 5) performance (implementations),**
- 6) evaluations (implementations),**
- 7) revisions (outlines, mockups, implementations),**
- and**
- 8) closing.**

# People in organizations provide different views of the subprocesses



**Subprocess  
Documentor's  
View**



**Subprocess Teacher's,  
Manager's, Implementor's  
and Participant's Views**

# **Organizations generate Subprocess Life-Cycle\* Views**

- **Organization subprocess teachers want to quickly learn, integrate, test, and teach their own views of their subprocesses. (Critical)**
- **Organization subprocess documentors want to quickly learn, integrate, test, and teach their own views of their subprocesses. (Critical)**
- **Organization subprocess managers want to quickly learn, integrate, test, and teach their own views of their subprocesses. (Critical)**
- **Organization subprocess implementors want to quickly learn, integrate, test, and teach their own views of their subprocesses. (Critical)**
- **Organization subprocess participants want to quickly learn, integrate, and perform tasks that are part of their views. (Critical)**
- **Organization subprocess managers want to quickly monitor execution of tasks that are part of their views.**
- **Organization subprocess teachers, documentors, managers, implementors, and participants want to quickly improve, test, and teach their subprocesses.**
- **Organization subprocess teachers, documentors, managers, implementors, and participants want to quickly improve, test, and teach using other organization's views.**
- **Organization subprocess teachers, documentors, managers, implementors, and participants become hurt/angry when their views are not supported.**
- **Organization subprocess implementors want to quickly update, test, and teach tools that help facilitate execution of their subprocesses.**
- **Organization subprocess teachers, documentors, managers, implementors, and participants want to quickly leave when their views continue not to be supported.**

**\* Also, called the "Universal Subprocess".**



# The "Game of Telephone" Syndrome: Where People Pass-On Only Parts of the "Message"





# Overview of how editable and cost-saving process documentation tools can solve problems.

Problem	Solution
Develop Internet-based tools to support the paperless documentation and management of complex distributed processes.	Editable process documentation tools can be tailored to each subprocess.
Organizations provide different views of the subprocesses.	Editable process documentation tools can be tailored to reflect different organization's views of the subprocess.
Organizations execute the eight "play development" stages.	Editable process documentation tools can be tailored to reflect the eight "play development" stages.
People in organizations provide different views of the subprocesses.	Editable process documentation tools can be tailored to communicate different people's views of the subprocess.
Organizations generate Subprocess Life-Cycle Views.	Editable process documentation tools can be tailored to reflect different Life-Cycle views of the subprocess.
The "Game of Telephone" Syndrome: Where People Pass-On Only Parts of the "Message".	Editable process documentation tools can be tailored to layer below different people's views of the subprocess.

# Solution: Process Libraries maintain organization's views of the subprocesses.

Views - Mozilla Firefox

File Edit View History Bookmarks Tools Help

barry.e.jacobs 6.8 minutes saved

file:///E:/8000-8999/nasa/flightprojects/summary/mock-ups/Views.htm

CNN New York Times Washington Post Comcast File Hippo Summaries Process Libraries NASAFCU Scoreboards Bandwidth TV Guide

Google Search PageRank Check AutoLink AutoFill Subscribe Options

## Views

Total 30 Entries

Classification: Improvement Subprocesses (T6-00-00-00)

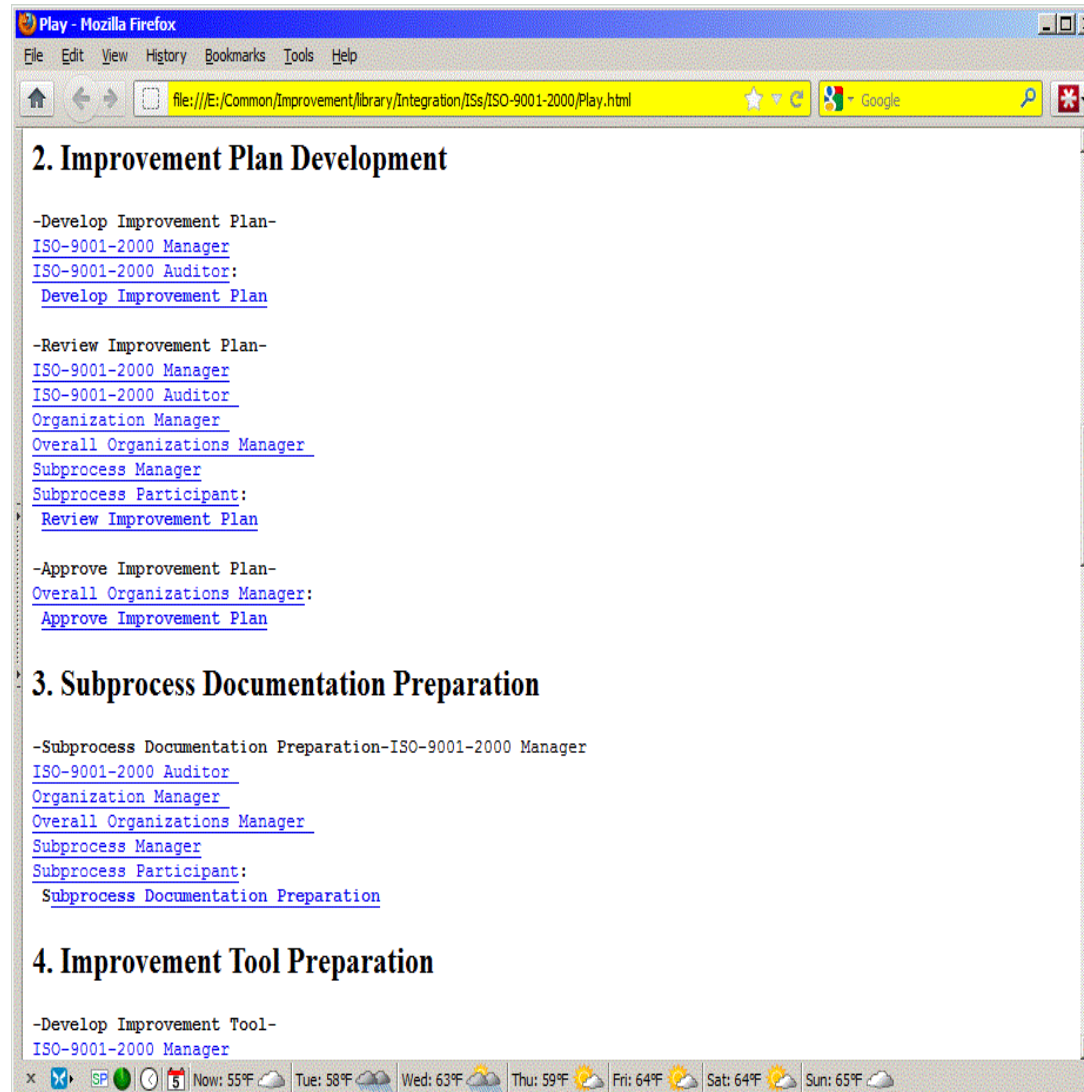
Subprocess Type: ISO-9001-2000 (T6-1-00-00)

[Create View](#)

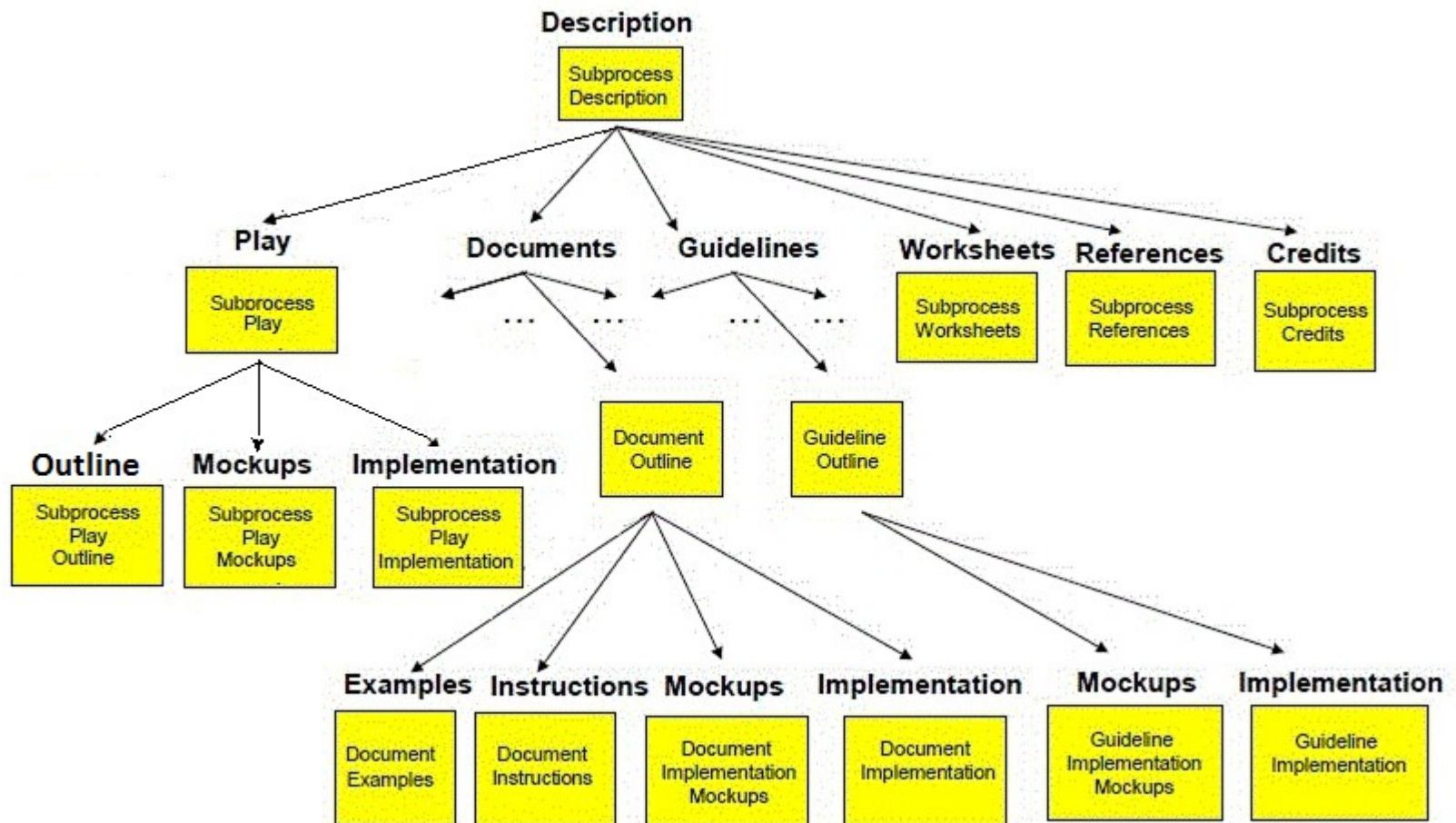
View	Steps
<a href="#">ASTRO-E2</a> Don Margolies (Don.Margolies@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">CHIPS</a> Dave Pierce (Dave.Pierce@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">CINDI/TWINS</a> Jim Byrd (Jim.Byrd@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">Constellation-X</a> Liz Citri (Liz.Citri@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">ESDIS</a> MaryAnn Esfandiari (MaryAnn.Esfandiari@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">EO-1</a> Bryant Cramer (Bryant.Cramer@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">EOS AURA</a> Richard A. Pickering (Richard.A.Pickering@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>
<a href="#">ESMO</a> Paul Ondrus (Paul.Ondrus@nasa.gov)	<a href="#">Update</a> <a href="#">Copy</a> <a href="#">Delete</a>

Done Fasterfox McAfee SiteAdvisor Now: Partly Sunny, 63° F Sat: 62° F Sun: 63° F Mon: 67° F Tue: 61° F

# Plays describe subprocess execution.



**Our basic approach is to wrap organization's subprocesses in a common envelope containing “communication vehicles” that facilitate intra- and inter-organization communication.**



# Tools that can be focused on during stages- by tool.

Tools To Focus On During Stages. - Mozilla Firefox

File Edit View History Bookmarks Tools Help

ehbs.org/intro/summary/stages1.html

Google

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File Edit View History Bookmarks Tools Help

ehbs.org/intro/summary/stages2.html

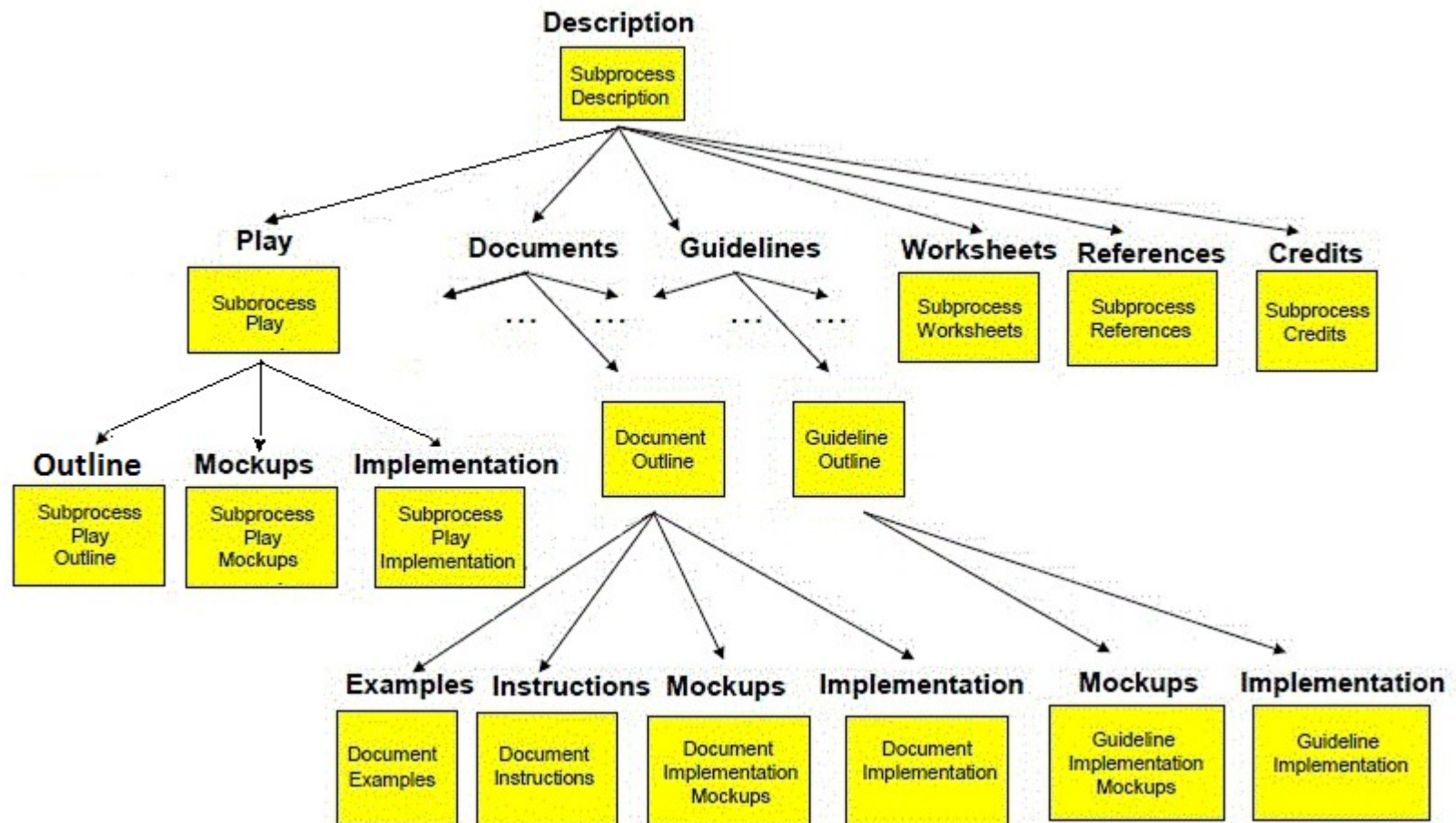
Google

### Tools To Focus On During Stages- By Stage.

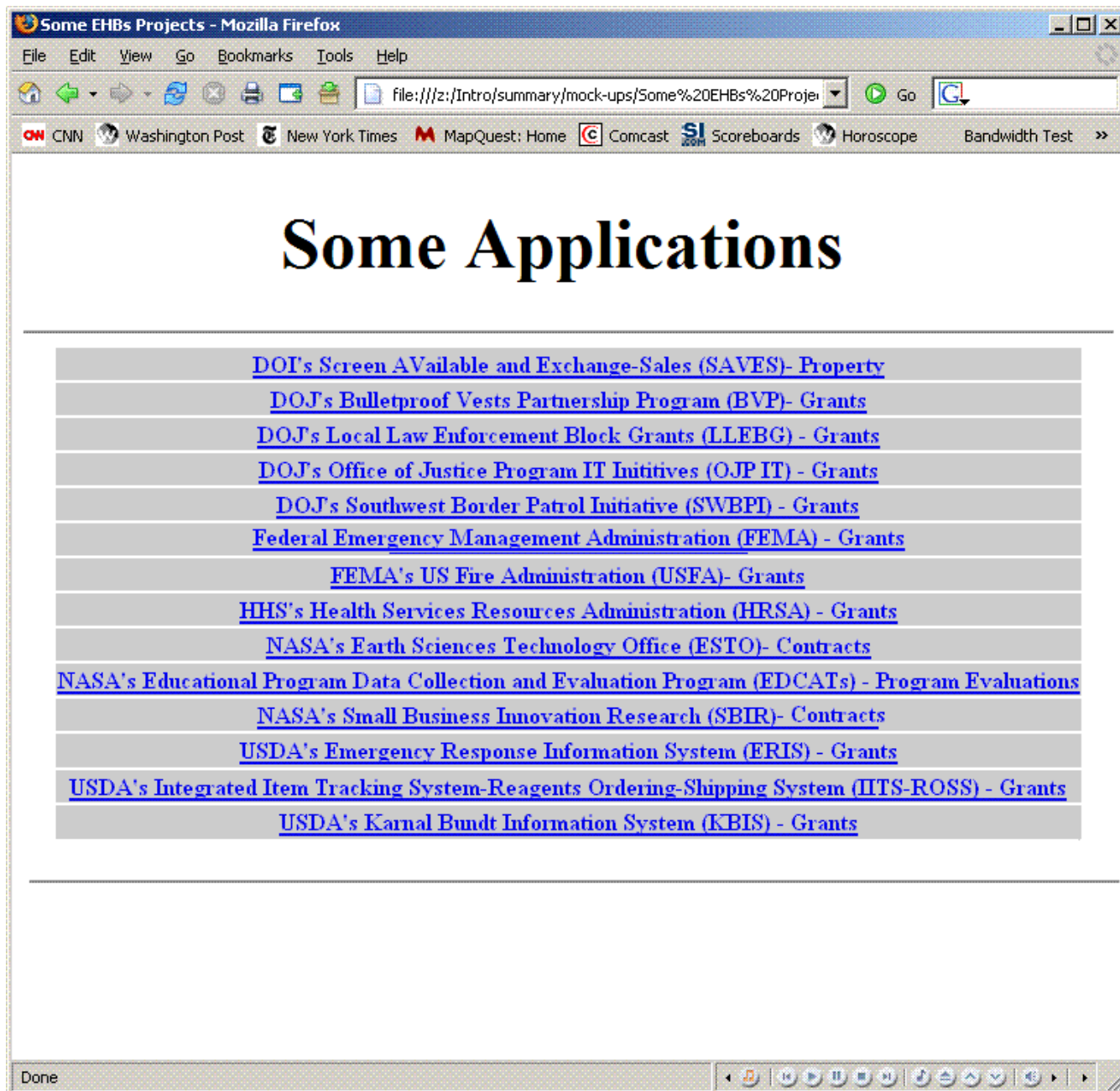
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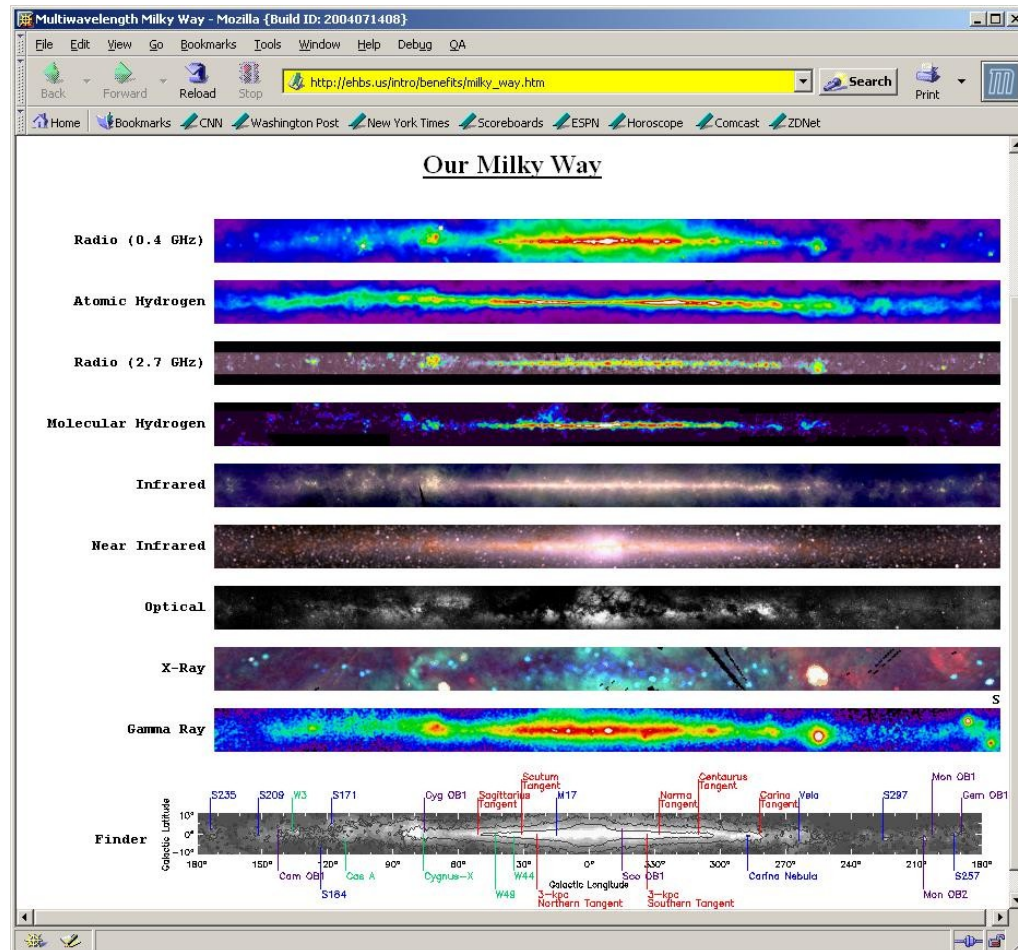
**For each subprocess, an “Integration View” is the integration or combination of other subprocess views. An “Integration View” facilitates intra- and inter-organization communication.**







**We believe that to truly understand one's universe, one must see it thru multiple “eyes” and also have tools to “communicate” these views.**





# Process Libraries (PLs) and Electronic Handbooks (EHBs) are where Shakespeare meets Freud.



- In Process Libraries (PLs), subprocesses are represented as "plays" where "actors" communicate thru the Internet. Each organization puts on its own "productions". For each role, Electronic Handbooks (EHBs) (also called Guidelines) guide "actors" thru their parts. Managers are "directors" using Worksheets as learning/management tools. Documentors serve as "playwrights". [Shakespearean]
- Organizations are represented as "families" having "multiple personalities". Subprocess "plays" and its "components" provide communication vehicles between members of the same family, different families, and families from different subprocesses. Documentors also serve as "family therapists". [Freudian]

# **All the world's a stage ...**

**Jaques:**

**All the world's a stage,  
And all the men and women merely players;  
They have their exits and their entrances,  
And one man in his time plays many parts,  
His acts being seven ages.**

**William Shakespeare**

**As You Like It, Act 2, Scene 7.**

**The approach uses a modernization of the Socratic Method or Dialogue to gain consensus between Teachers, Documentors, Managers, Implementors, and Participants.**





# Theatre of Dionysus- Athens, Greece



## For More Details

