pennsylvania
OFFICE OF ADMINISTRATION
INFORMATION TECHNOLOGY

Information Technology Policy

Requirements Management Tools

ITP Number ITP-APP017	***Effective Date*** September 18, 2008
Category Recommended Policy	***Supersedes***
Contact RA-itcentral@pa.gov	***Scheduled Review*** April 2015

This Information Technology Policy (ITP) establishes enterprise-wide standards and guidance for requirements management tools.

1. Purpose

The purpose of this Information Technology Policy (ITP) is to establish enterprise-wide standards and guidance for requirements management tools.

2. Background

A major cause of applications which fail to be delivered on time, within budget, and with customer satisfaction is incomplete requirements, incorrect requirements, changing requirements, or requirements which were not user-driven. The method of gathering and documenting requirements for application development projects requires an iterative and collaborative approach between all stakeholders.

An automated approach to collecting and managing the requirements can add value and provide visibility into various aspects of the project. Examples of improvements over manual systems include the ability to build repeatable processes, a central repository, audit ability, traceability, subscription capability, and collaboration features. A formal process, aided by templates for feature, use case, user story, and supplementary requirements collection, drives repeatability. A requirements management tool provides a central requirements repository with access and control features. This improves analysis with filtering, sorting, and reporting capabilities. Audit capability provides the ability to programmatically determine who requested a feature, enhancement, or fix, and then determine what it was and when it was requested. Traceability

provides visibility into the relationships back to features and forward to test cases. Subscription capabilities permit automated notification to stakeholders when requirements are changed. With distributed customer offices and development teams, online collaboration capabilities are increasingly more important.

The goal of a requirements management tool is to write effective and valid use cases, improve traceability, strengthen collaboration, reduce risk, and increase quality. A requirements management tool is part of a risk mitigation strategy.

3. Scope

This Information Technology Policy (ITP) applies to all departments, boards, commissions and councils under the Governor's jurisdiction. Agencies not under the Governor's jurisdiction are strongly encouraged to follow this ITP.

4. Objectives

The objective of this policy is to provide a toolset to:

- Improve the process of requirements definition and management;
- Improve understanding of projects' vision, goals, specifications, and requirements;
- Improve traceability and impact analysis;
- Provide documentation for internal and external auditing;
- Improve communication for all stakeholders during requirements gathering and prioritization;
- Improve collaboration during requirements gathering for teams that are geographically distributed or functionally isolated;
- Improve customer satisfaction through clearly defined requirements; and
- Improve project success in delivering projects on time, and to the specified cost, quality, and performance.

5. Policy

New application development projects that could benefit from a requirements management tool are to use the current requirements management tools as defined in section 6 of this ITP.

Major revisions to existing applications that are not using the current standards are to be reviewed as part of the ITP-PRO001 - *Procurement Review Process* to determine if the investment warrants a change in standards at that time.

For application development projects using modeling tools classified as "Retire," a date for migration off this technology has been established.

Agencies are to use the requirements management tools as described by the software engineering processes prescribed in ITP-APP012 – *Systems Development Life Cycle Policy*.

All IT projects related to application development are to be subject to review prior to inception for compliance with this standard through the Procurement Review Process (See ITP-PRO001).

6. Standards

CURRENT STANDARDS

(These technologies are supported by the current standards and meet the requirements of the architecture. They are recommended for use.)

Technology	Platforms	Technology Classification
IBM/Rational RequisitePro	Windows	Current
HP Quality Center	All	Current
Microsoft Team Foundation Server[1]	Windows	Current
Sparx Systems Enterprise Architect[2]	Windows	Current

CONTAIN

(These technologies no longer meet the requirements of the current architecture and are not recommended for use. They are to be phased out over time. No date has been set for their discontinuance.)

Technology	Platforms	Technology Classification
Borland Caliber-RM	All Platforms	Contain
Telelogic DOORS	All Platforms	Contain

RETIRE

[1] Requirements management capabilities of these products may be leveraged when the product is currently deployed for the products' primary use and when the products' capabilities meet the organizational needs for requirements management. (See ITP-APP013 - *Integrated Development Environments)*

[2] Requirements management capabilities of these products may be leveraged when the product is currently deployed for the products' primary use and when the products' capabilities meet the organizational needs for requirements management. (See ITP-APP016 - *Requirements, Data and Object Modeling Tools)*

(These technologies are being phased out. Plans are to be developed for their replacement, especially if there is risk involved, such as lack of vendor support. A date for retirement has been set.)

Technology	Platforms	Technology Classification
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EMERGING / RESEARCH

(Emerging technologies have the potential to become current standards. At the present time, they are to be used only in pilot or test environments where they can be evaluated. Use of these technologies is restricted to a limited production mode, and requires approval of a waiver request. Research technologies are less widely accepted and time will determine if they will become a standard.)

Technology	Platforms	Technology Classification
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7. Related ITPs/Other References

- ITP-PRO001 – *IT Procurement Review Process*
- ITP-APP012 –*Systems Development Life Cycle Policy*

8. Authority

- Executive Order 2011-05, Enterprise Information Technology Governance

9. Publication Version Control

It is the user's responsibility to ensure they have the latest version of this publication. Questions regarding this publication are to be directed to RA-itcentral@pa.gov.

This chart contains a history of this publication's revisions:

Version	Date	Purpose of Revision
Original	9/18/2008	Base Document
	10/25/2010	ITB Refresh
	4/2/2014	ITP Reformat; Merged STD-APP017A into ITP