

# **BEDIFFERENT**

ACE 2012 INTERNATIONAL



# Custom Business Process Management

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Rob McAveney

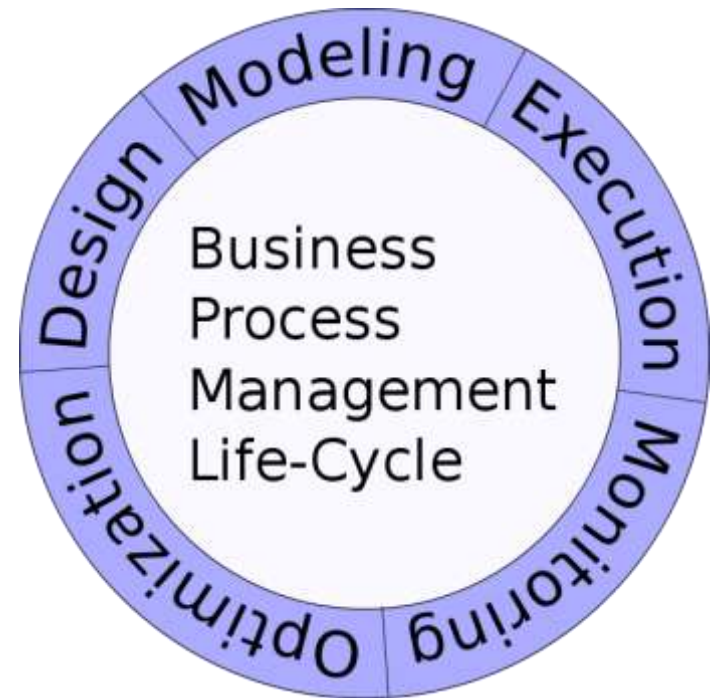
Director of Product Management

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# Background

- ▶ Business Process Management (BPM) is intended to be a systematic approach to improving process workflows
- ▶ Processes may include activities that humans perform as well as system activities
- ▶ Processes may cross department, location, company and application boundaries
- ▶ The “big picture” view has BPM tying together people, systems and content to execute repeatable processes in the most efficient way possible



# Workflow and Lifecycle



## ▶ Workflow

- “Process” management
- Routes items around for action
- Models things people (or systems) do
- May have parallel paths, multiple assignments, looping and sub-flows

## ▶ Lifecycles define mutually exclusive statuses

- “State” management
- An item may be in only one state at a time
- Transitions between states often trigger business rules
- Multiple workflows (automated or manual) may trigger a state transition

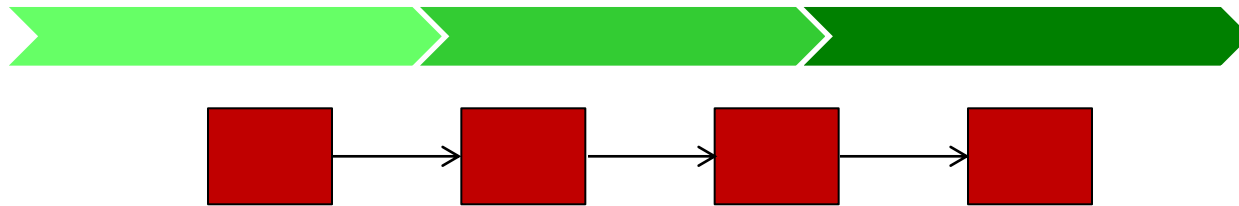
## ▶ Conventional BPM solutions sometimes blur the line

- Most BPM systems do not recognize an item’s / File’s “State”
- Most PLM systems confuse workflow and lifecycle as the same thing

# Two Views of Workflow

## ▶ Workflow drives Life Cycle

- One overarching Workflow runs for the duration of multiple Lifecycle states



- Often used for relatively short Lifecycles, like for ECRs

## ▶ Lifecycle drives Workflow

- A Workflow models the actions required to get from one Lifecycle state to the next



- Used between states of long Lifecycles, like Active → Obsolete

# BPM with Aras

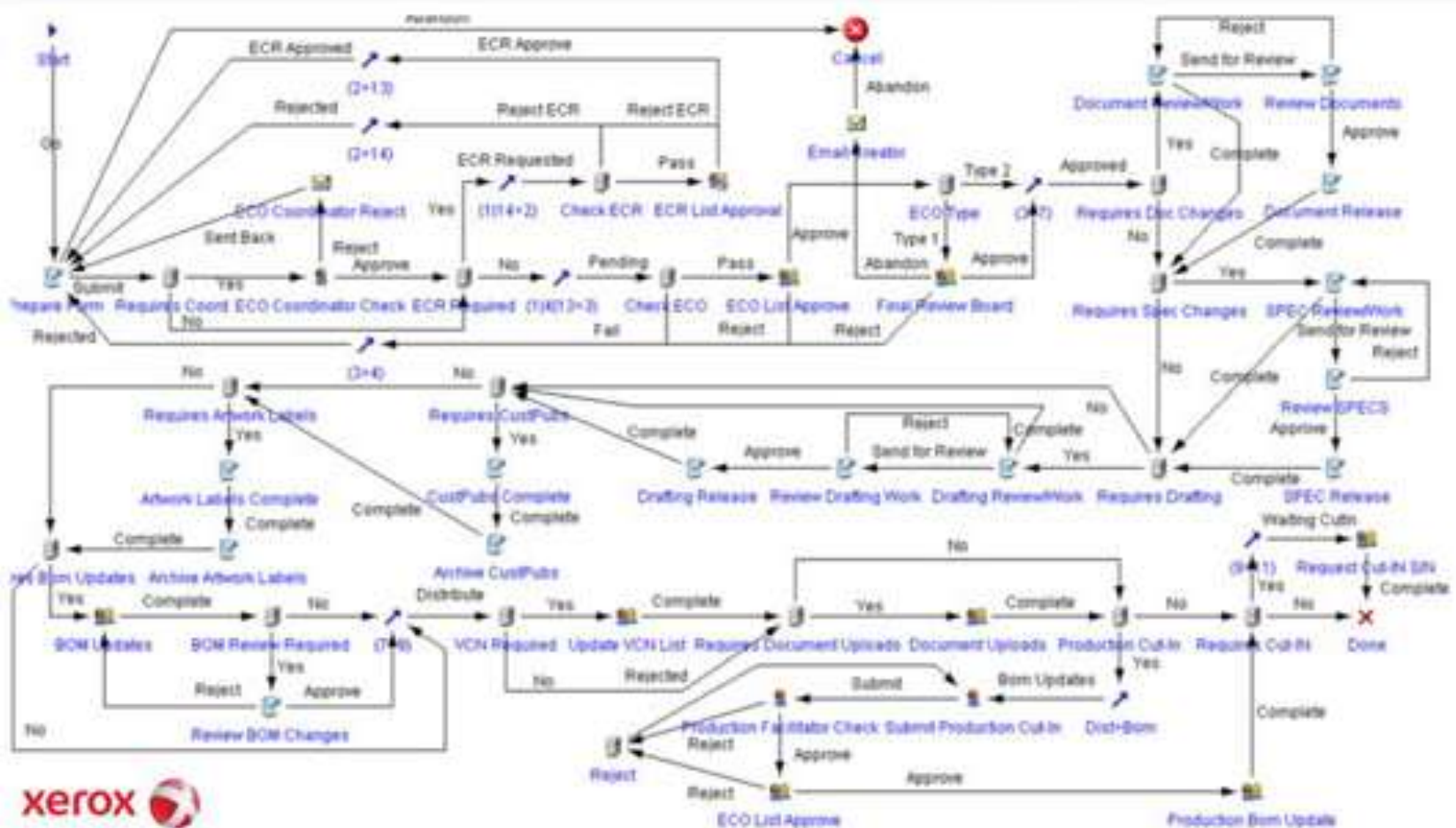


- ▶ **Separates state-based rules from process flow**
- ▶ **Model both simple & complex processes using a graphical UI in web browser**
- ▶ **Execute repeatable processes based on templates**
- ▶ **Participate in processes using a consistent browser-based UI**
- ▶ **Enforces security**
- ▶ **Leverage PLM content (Items & Files) during process execution**
- ▶ **Monitor running processes graphically or with reports**
- ▶ **Analyze process execution data using known APIs**
- ▶ **Integrate other systems via federation**

# BPM with Aras

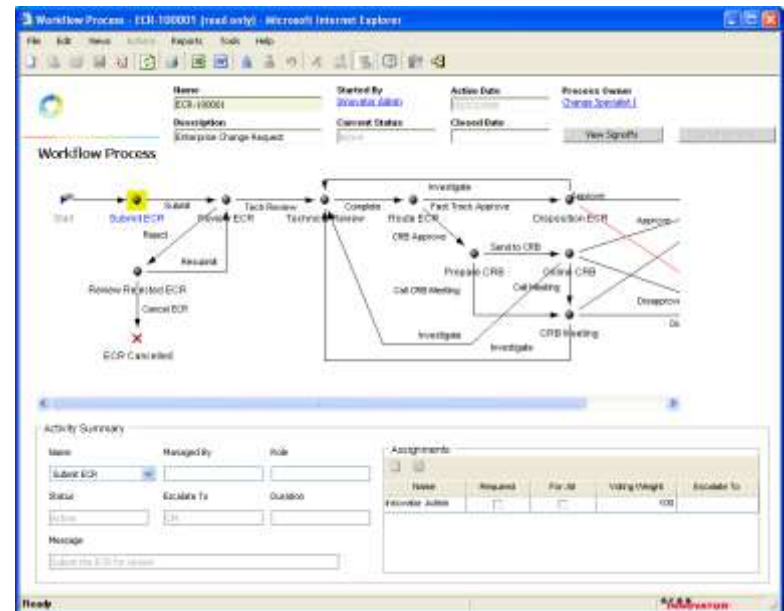
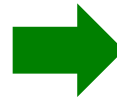
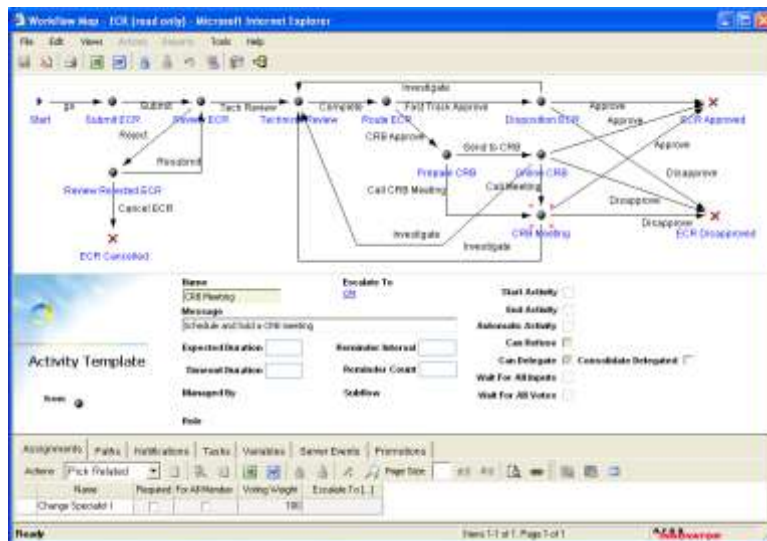


- ▶ Real world example, running in production at Xerox



# Process Templates

- ▶ **Workflow Maps serve as business process templates, and are used to model repeatable processes**
- ▶ **Workflow Maps are instantiated (copied) to become Workflow Processes, which actually execute**





# Control Flow Options



## ▶ Start & End Activities

- Begin and end workflows, multiples allowed

## ▶ Interactive Voting

- Voting options defined graphically using Paths

## ▶ Default Paths

- Handle unresolved voting, automated paths

## ▶ Override Paths

- “Short circuit” a process when a problem is found

## ▶ Wait For All Inputs

- Pause the flow until all open branches finish

# Assignments & Voting



- ▶ **Assign activities to individuals, groups or roles**
- ▶ **Multiple assignments per activity**
  - Make group decisions
  - Assign to all group members, but let one do the work
- ▶ **Voting Weights**
  - Flexible options to decide which path to follow
  - Majority Rules
  - Pluralities
  - Executive Veto / Override
- ▶ **Collect all votes or move on once a decision is made**

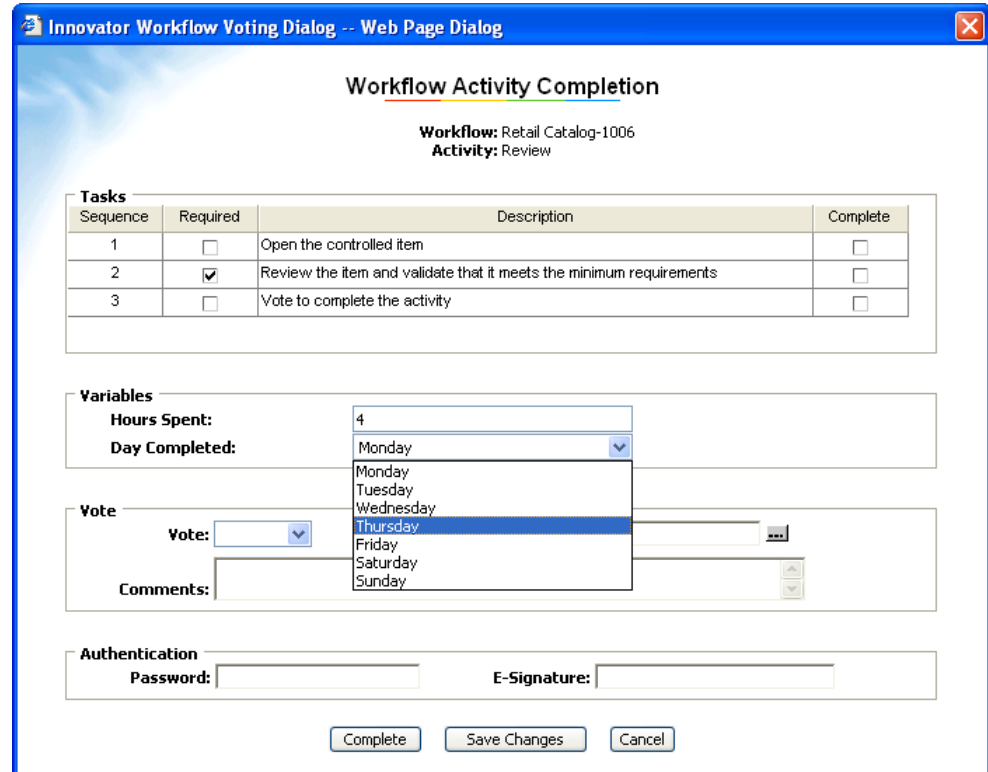
# Data Collection

## ▶ Task Lists

- Break down the activity into defined steps
- Require sign-off that certain tasks are complete

## ▶ Variables

- Collect information during activity sign-off
- Store in workflow history audit trail or copy to other items



The screenshot shows a web application window titled "Innovator Workflow Voting Dialog -- Web Page Dialog". The main heading is "Workflow Activity Completion". Below this, it specifies "Workflow: Retail Catalog-1006" and "Activity: Review".

The "Tasks" section contains a table with the following data:

Sequence	Required	Description	Complete
1	<input type="checkbox"/>	Open the controlled item	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	Review the item and validate that it meets the minimum requirements	<input type="checkbox"/>
3	<input type="checkbox"/>	Vote to complete the activity	<input type="checkbox"/>

The "Variables" section includes:

- Hours Spent: 4
- Day Completed: Monday (with a dropdown menu showing options: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday)

The "Vote" section includes a "Vote:" dropdown menu and a "Comments:" text area.

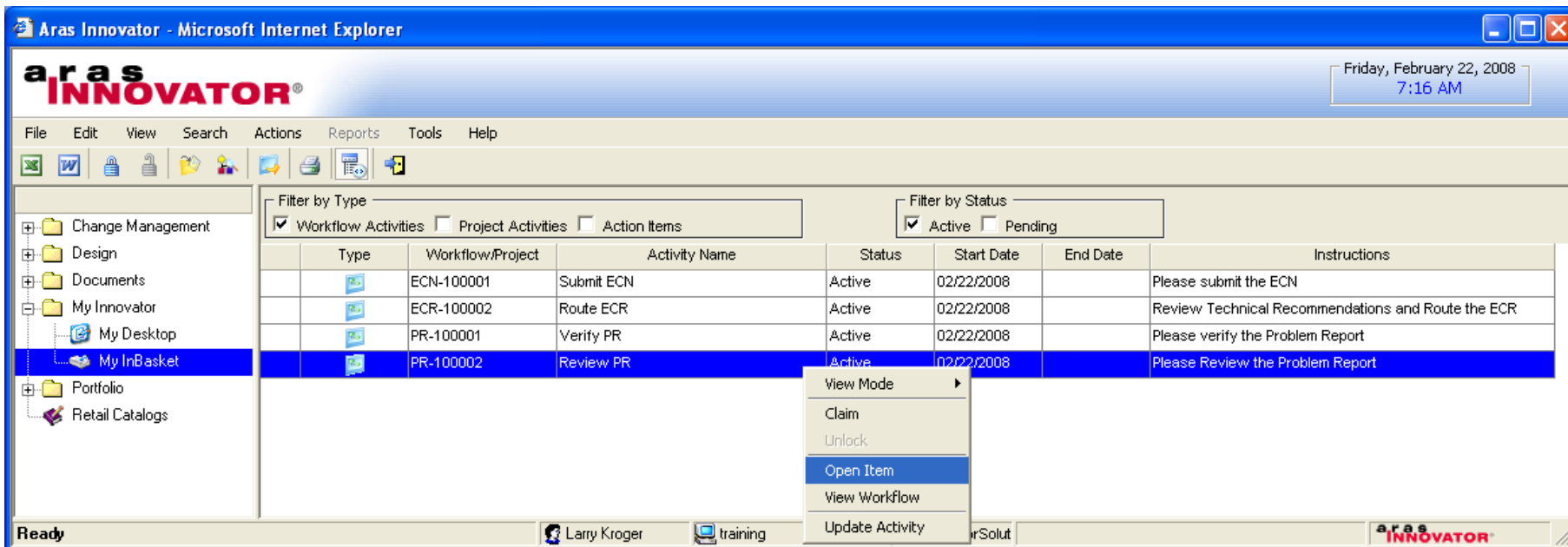
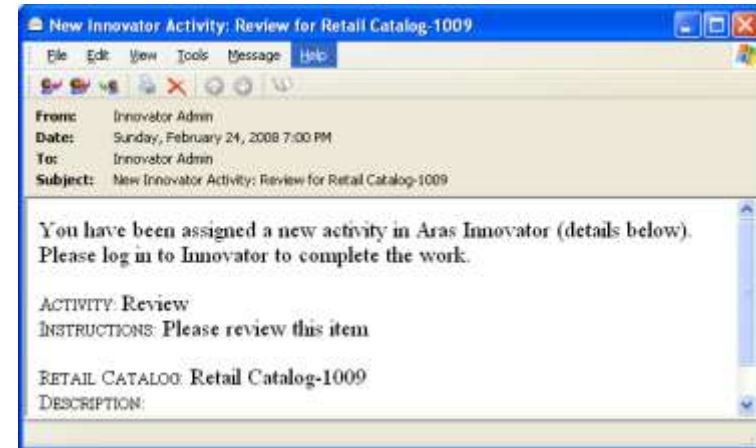
The "Authentication" section includes "Password:" and "E-Signature:" input fields.

At the bottom, there are three buttons: "Complete", "Save Changes", and "Cancel".

# InBasket & Notification

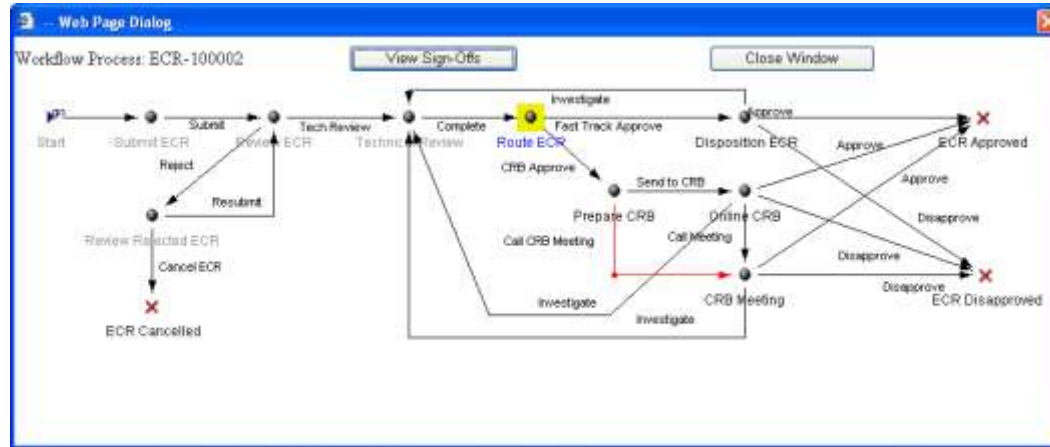


- ▶ Email notifies users of assigned activities
- ▶ Find all assigned activities in one place
- ▶ Perform the work directly in PLM



# Status & History

## ▶ Graphical view of the active activities



## ▶ Chronological view of activities, votes and comments

Report: Workflow Process History - Microsoft Internet Explorer

### Workflow History Report

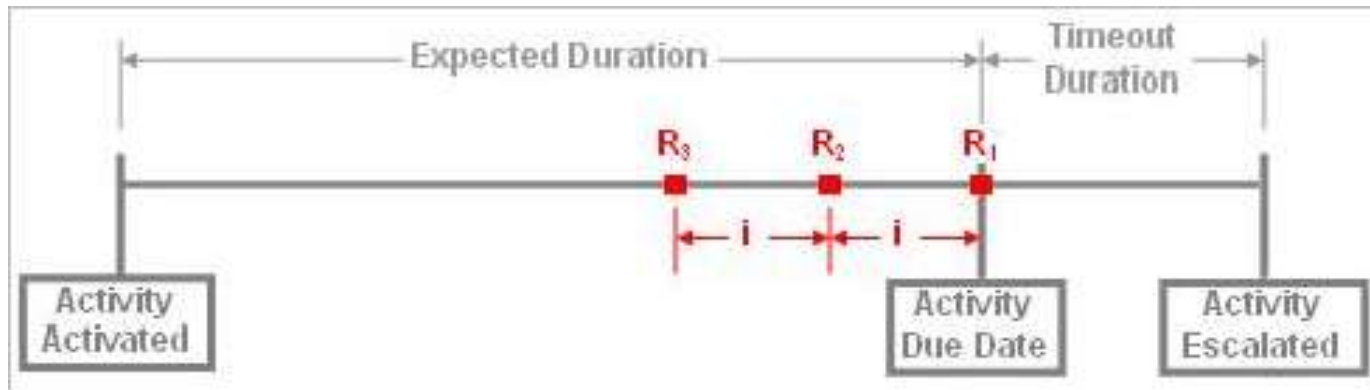
Item: ECR-100002      Enterprise Change Request      Current Status is: Active  
 Started By: Robert Hoover      Started On: 02/22/2008      Completed On:

Activity	State	Assigned To	Completed By	How Voted	When	Comments
Submit ECR	Closed	Robert Hoover	Robert Hoover	Submit	02/22/2008	ECR submitted
Review ECR	Closed	Change Specialist I	Babs Jansen	Reject	02/22/2008	Rejected due to missing information
Review Rejected ECR	Closed	Robert Hoover	Robert Hoover	Resubmit	02/22/2008	Fixed ECR
Review ECR	Closed	Change Specialist I	Larry Kroger	Tech Review	02/22/2008	
Technical Review	Closed	Delta	Daniel Day	Complete	02/22/2008	Looks good
Route ECR	Active	Change Specialist I				



# Reminders & Escalation

- ▶ Define a timeline for completion of an activity



- ▶ Dates are adjusted when the activity is activated
- ▶ One or more reminders can be sent before the due date
- ▶ Activity gets escalated to management / designated person if a task takes too long to complete

# Dynamic Workflow Execution



- ▶ **Change a workflow while it's running**
- ▶ **Dynamic activity assignments, either interactively or using custom business rules**
- ▶ **Dynamic role resolution: assignments to the Owner of the item**
- ▶ **Robust interaction between business process Workflows and item/object Lifecycles**
- ▶ **Multi-level workflows (Parent/Child, Sub-workflows, etc)**
- ▶ **Rich event model to enable business logic and integrations with other systems**
- ▶ **Connect Aras workflows to other BPM workflows in other systems**
  - PLM - Teamcenter, Windchill, ENOVIA MatrixOne, Agile and others
  - BPM - SAP Netweaver, Oracle, IBM Lombardi, WebSphere, Microsoft SharePoint and more

# Why Aras for BPM?



- ▶ **No user license expenses**
- ▶ **Combines BPM Workflow & Lifecycle in a single platform**
- ▶ **Advanced functionality out-of-the-box**
- ▶ **Highly robust workflow modeling and execution capabilities**
- ▶ **Web services integration & secure federation**
- ▶ **Browser-based screens with email notification & alerts**
- ▶ **Customizations upgrade easily**
- ▶ **It just works!**



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