

# aras community event

2010 International Conference

# Implementation Best Practices How to Plan and Implement a phased rollout

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# Agenda



- Methodology Overview
- Why is it a good fit for Innovator
- Tools to help
  - ✓ Use cases
  - ✓ Check lists
  - ✓ Project Plans
- Final thoughts
- Questions

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# **Aras Methodology Overview**



- Based on Rational Unified Process (RUP)
- Designed to use the "Small Win" approach
- Take a well defined problem(s) and implement with less risk and a higher degree of confidence
- Implement a series of **Production** releases that comprise the complete solution
- Each release provides value to the business
- Scope each release to be completed in 60-90 days

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## A little about RUP



- Designed to use an iterative approach to solution development
- Well defined but not a concrete prescriptive process
- Provides an adaptable implementation process framework
  - ✓ Intended to be tailored by selecting the elements that meet your needs
- Based on Best Practices of software development
  - ✓ Develop Iteratively, risk is the primary iteration driver
  - ✓ Manage Requirements and scope
  - ✓ Continuously verify quality
  - ✓ Control Changes
  - ✓ Manage customization

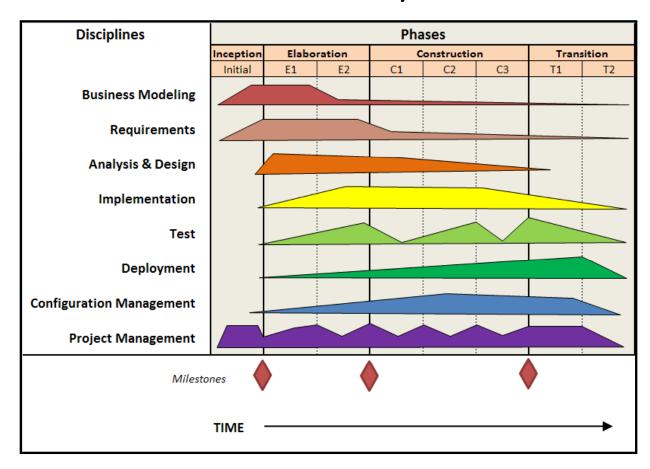
All this leads to improved quality and better predictability

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# **Iterative Development**



### The RUP lifecycle



Business value is delivered incrementally in time-boxed cross-discipline iterations

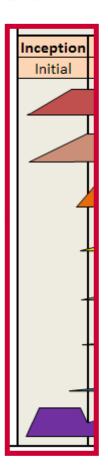
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# **Inception Phase**

#### Decide what to do

- Primary Objectives:
  - ✓ Scope the system adequately
  - ✓ Validate initial costing and budget estimates
- Activities
  - ✓ Establish Business Case and high level Req's
  - ✓ High level (cloud) Use Cases
  - ✓ Project Plan and Initial Risk Assessment
- Milestones:
  - ✓ Stakeholder concurrence on scope, cost, and risk
  - ✓ Initial requirements defined (not a lot of detail)
  - ✓ Project Plan concurrence and is realistic
  - ✓ Business case makes sense





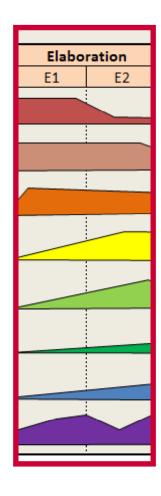
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## **Elaboration Phase**

#### Plan the details

- Primary Objectives:
  - ✓ Improve requirements and validate
  - ✓ End to End skeleton
- Activities
  - ✓ Requirements elaboration & Use Cases
  - ✓ Design Workshops
  - ✓ Visual prototypes & user validation
- Milestones:
  - ✓ Req' & Use Cases identified and 80% complete
  - ✓ Project Plan refined, cost & risk are managed
  - ✓ Detailed plans for next iterations in place





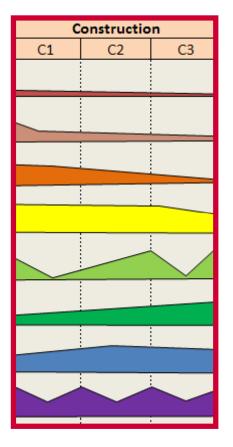
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## **Construction Phase**

#### **Build** it

- Primary Objectives:
  - ✓ Build the system
  - ✓ End to End skeleton
- Activities
  - ✓ Behavioral Prototypes
  - ✓ Data Migration
  - ✓ Unit test
- Milestones:
  - ✓ Solution is acceptable to deploy
  - ✓ Stakeholders are near ready to deploy
  - ✓ Project Plan refined, cost & risk are managed





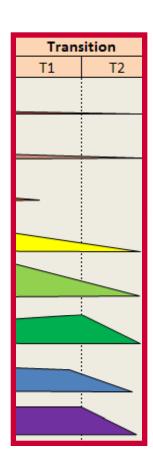
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## **Transition Phase**

### Deploy it

- Primary Objectives:
  - ✓ Move the system to production
  - ✓ Training & fine tuning
- Activities
  - ✓ End user training
  - ✓ Documentation
  - ✓ Full system test (production environment)
- Milestones:
  - ✓ Solution & documentation is ready to deploy.
  - ✓ System is functional in production





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# **RUP Disciplines**



## Business Modeling

✓ The goal is to describe the vision of the end user (business) in a way that can be understood by others (developers)

## Requirements

✓ The goal is to elicit, document, and agree upon the scope of what is and what is not to be built

## Analysis and Design

✓ The goal is to analyze the requirements for the system and to design a solution to be implemented, taking into consideration the requirements and constraints Disciplines

**Business Modeling** 

Requirements

Analysis & Design

Implementation

Test

Deployment

Configuration Management

**Project Management** 

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## **RUP Disciplines**



## Implementation

✓ The goal is to transform the design into a solution and to perform a basic level of testing

### **❖** Test

✓ The goal is to perform an objective evaluation to ensure quality. This includes finding defects, validating that system works as designed, and verifying that the requirements are met

## Deployment

✓ The goal is to plan for the delivery of the system and to
execute the plan to make the system available to end users

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# **RUP Disciplines**



## Change Management

✓ The goal is to manage access to the project's work products. This includes not only tracking versions over time but also controlling and managing changes to them

## Project Management

✓ The goal is to direct the activities that take place on the project. This includes managing risks, directing people (assigning tasks, tracking progress, etc.), and coordinating with people and systems outside the scope of the project to be sure that it is delivered on time and within budget

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# OK, GREAT!

Now how does this apply to Aras Innovator

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# RUP Best Practices How they fit with Aras Innovator



- Develop iteratively
  - ✓ Its always best to know all the requirements up front but this is not reality
  - ✓ Don't spend an inordinate amount of time upfront on requirements and design w/o user validation
  - ✓ Model a little, test a little & repeat
  - ✓ Its what Aras Innovator is good at
- Manage Requirements
  - ✓ Always keep in mind the requirements set by the users
- Model visually
  - ✓ Use diagrams and mock ups
  - ✓ Its what Innovator does

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# RUP Best Practices How they fit with Innovator



- Use Components
  - ✓ Break down large projects into manageable pieces
  - ✓ Item reuse is a big plus
  - ✓ Again, this is what Aras Innovator does
- Verify Quality
  - ✓ Always make testing a major part of the project
- Control Change
  - ✓ Insure changes are synchronized and verified constantly
  - ✓ Move packages from Dev  $\rightarrow$  QA  $\rightarrow$  Prod

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# A project example

**Aras Innovator Product Engineering** 

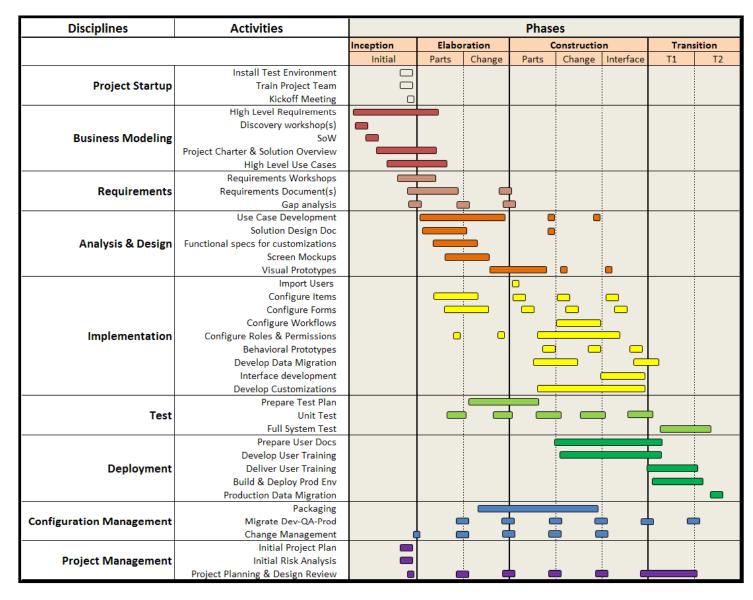


- Project Requirements
  - ✓ Parts and documents should be managed
  - ✓ Bill of Material management
  - ✓ Implement a change management process
  - ✓ Load Parts, BoMs and Documents from a legacy system
  - ✓ Interface to a legacy system for part/bom transfer
  - ✓ Develop user documentation
  - Develop training and train users

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# **RUP in an Aras Project**





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# Making Iterations work Things to think about



- Work does not proceed entirely serial
  - ✓ This is not a waterfall approach
- Work is done in a serial fashion but you don't need to finalize a discipline before moving on to the next
  - ✓ Address some requirements, analyze, develop and go back
- Iterations should be planned according to risk
  - ✓ Higher priority risks first
- Near term iterations are planned in more detail
  - ✓ Longer term items may change in scope, etc
  - ✓ Doesn't mean that longer term items are not planned

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## PLANNING YOUR IMPLEMENTATION

Who, What & How

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# Who do you need



Role	Responsibility
Project Manager	<ul> <li>Direct Implementation resources</li> <li>Manage project schedules</li> <li>Track Status</li> <li>Resolve conflicts and issues</li> </ul>
Business Process Owner(s)	<ul> <li>Provide project priorities and objectives</li> <li>Direct participation of resources</li> <li>Resolve business process issues</li> </ul>
Subject Matter Experts	<ul> <li>Communicate current process</li> <li>Provide information details</li> <li>Support user community during rollout</li> </ul>
I.T. System Support	<ul> <li>Support site infrastructure</li> <li>Extract legacy data</li> <li>Provide technical expertise</li> </ul>
Solution Architect	<ul><li>Analyze requirements</li><li>Configure application</li></ul>
Technical Consultant	<ul><li>Develop customizations</li><li>Provide technical expertise</li></ul>

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# How to approach it

## Divide and Conquer



- Divide implementation into phases
  - ✓ Preferably phases that provide business values and can be deployed independently
  - ✓ Build a plan for each phase
  - ✓ Choose goals for each phase and make sure you address items with importance or high risk sooner
- Divide phases into high level use cases (Clouds)
  - ✓ Each case deals with a separate business process
  - ✓ Its OK if use cases overlap
- Divide cloud use cases
  - ✓ Detail each use case from a user perspective (sea level)
  - ✓ These will likely be developed iteratively.

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# What you need

### **Work Products**



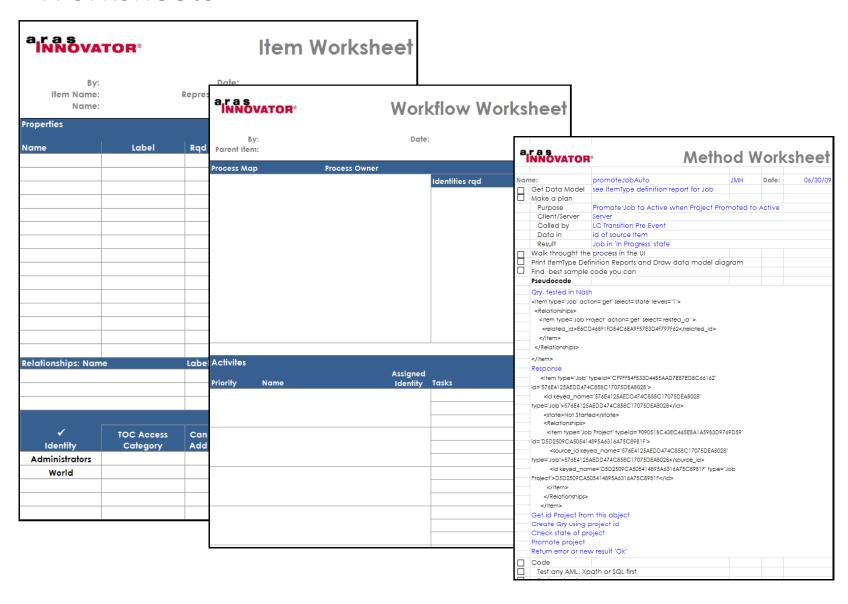
- Statement of Work (SoW)
  - ✓ All our projects have one
- Project Plan
  - ✓ Usually included with SoW
  - ✓ Continuously refined at each phase
- Other documents
  - ✓ Use Cases
  - ✓ Requirements Document
  - ✓ Functional Spec (if required)
  - ✓ Meeting Minutes/ Issues list
  - ✓ Checklists and worksheets

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# Some things you can use

### Worksheets





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### **Use Cases**



- ❖ A good reference
  - ✓ Writing Effective Use Cases by Alistair Cockburn
- You will likely write 2 types of use cases
  - ✓ High level (Clouds)
  - ✓ Detailed (Sea Level)
- Use Cases are the foundation for many other items
  - ✓ Documentation and training material
  - ✓ Test plans

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### **Use Cases**

## A Sample Sea Level Use Case



## Explains how the system and end user interact

#### Main Success Scenario

1. End User selects "Create New ECN" from TOC

or and more, the onlingeration give event will be used.

- Variation: End User selects "New" from toolbar with the ECN item selected in the TOC
- Variation: End User selects an ECN from the main ECN grid and selects "edit from the menu
- System will display the New ECN form
- 3. End user will add all required ECN data on ECN form
- 4. End User will select the ECRs Tab
- 5. System will display the ECRs relationship grid
- 6. End User will select "New Relationship" from the toolbar of the grid
- System will display the ECR item browser window
- 8. End user will select the correct ECR(s) and close the item browser
- System will run automation and copy all the Affected Items for each ECR that is selected by the End User
  - a. Alternate Flow: End User selects multiple ECRs that contain a common part
    - This will cause a Failure End Condition. The Error dialog should state that part number xyz cannot be referenced to more than one ECR.
  - b. Alternate Flow: End User selects the same ECR more than once
    - This will cause a Failure End Condition. The Error dialog should state that the ECR is already added to this ECN
- 10. End User will save the ECN and continue normal operation

Frequency: Daily use of this automation is expected

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# **Final Thoughts**

### Dos and Don'ts



### **❖** DO

- ✓ Create visual prototypes and get user validation before developing any method code
- ✓ Develop accurate Use Cases and keep them up to date
- ✓ Look for "Small Wins" that provide business value

### **❖** DON'T

- ✓ Spend a significant amount of time developing specs w/o prototyping the solution
- ✓ Worry about not getting 100% of the detailed requirements up front: Iterate!

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## **THANK YOU**

Questions?

Contact

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