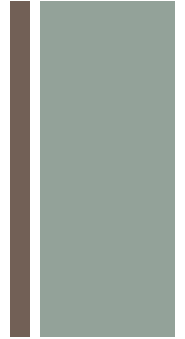


Overhauling Legacy Enterprise Software Applications with a Concept Refinement Process Model

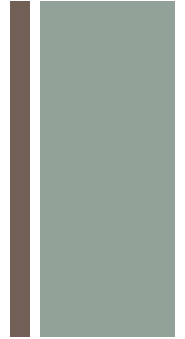
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+ Introduction



- What is the OCRPM and why do we need it?
- The high-level objectives of each phase of the OCRPM.
 - Low-level details of the sub-processes will not be covered.
- Summary
- Questions & Answers

+ The Overhaul Concept Refinement Process Model



- This is NOT a Software Development Process
- This process model is invoked PRIOR to the execution of a Software Development Process
- The intent of this process model is to enable the confident selection of:
 - Software Architectures
 - Software Development Processes

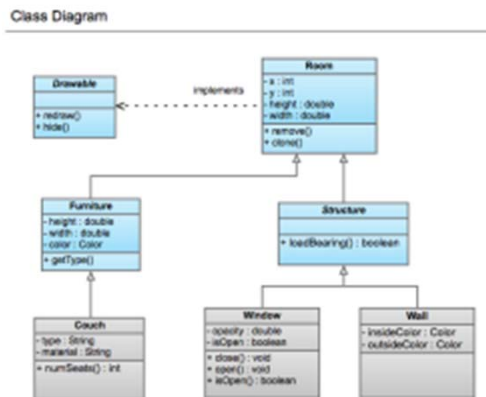
+ What does this Mean?



Organization



Legacy Software Product

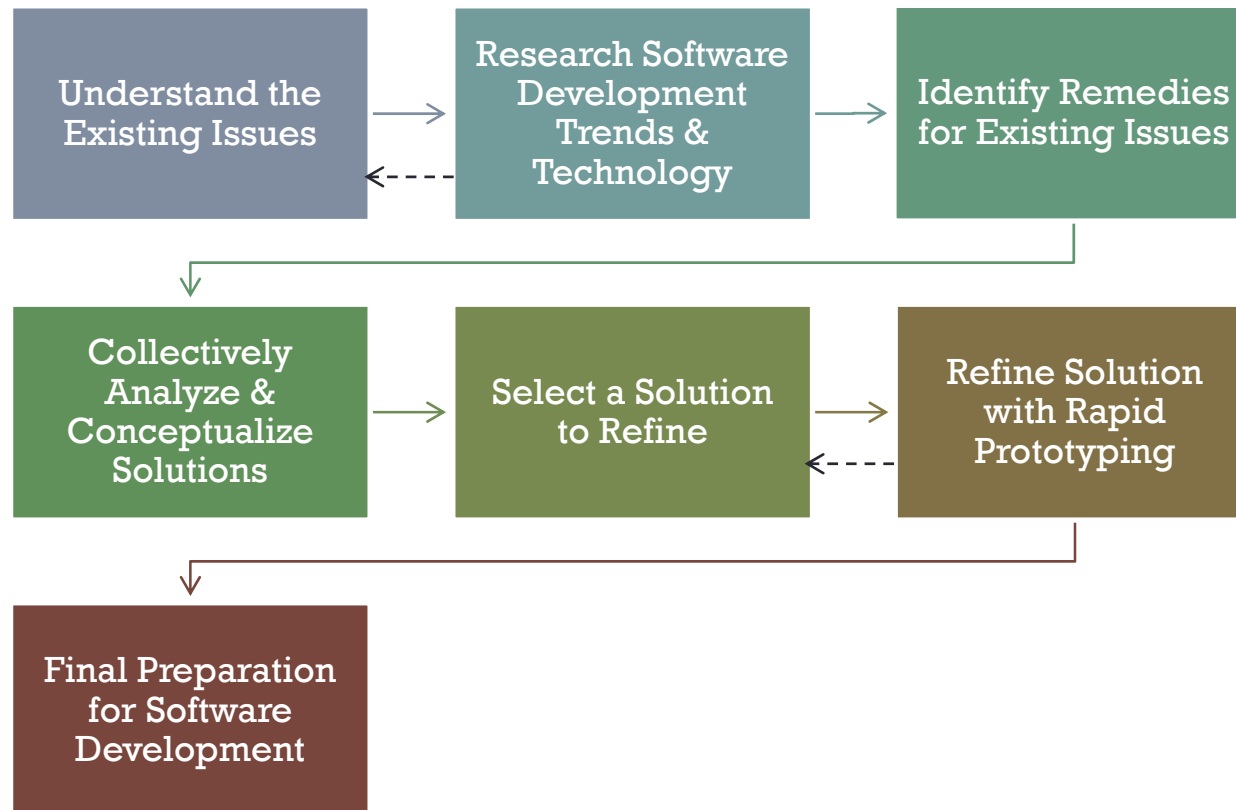


Architecture (e.g., SOA)



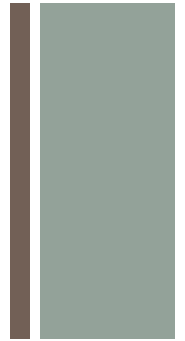
Development Process (e.g., Scrum)

+ The Overhaul Concept Refinement Process Model - Phases

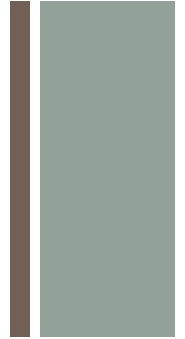


+ Phase 1: Understand the Existing Issues

- The goal of the first phase is to understand the high-level issues with the existing architecture, technology, ongoing development process, and all relevant support and maintenance processes.
- The **Issue Discovery Process** is used to accomplish this objective.
- Resulting Artifacts:
 - A set of models that describe critical architectural elements from certain viewpoints.
 - A *Symptoms* document listing each reported symptom, and stakeholder group that reported the symptom.
 - An *Issues* document listing and describing each identified issue.
 - A *Symptoms/Issues* cross reference document, linking symptoms to issues.



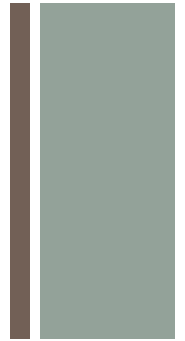
+ Phase 2 : Research Software Development Trends and Technology



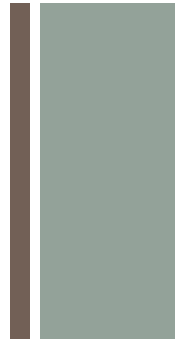
- The goals:
 - Define an adequate domain of research by identifying research items
 - Create a research plan,
 - Execute the research plan
- These goals are attainable via execution of the **Research Planning Process**.
- Resulting Artifact:
 - Research Plan

+ Phase 3 : Identify Remedies for Existing Issues

- The objective of this phase is to identify and document potential remedies for each issue that was documented in Phase 1.
 - Remedies are solutions capable of mitigating issues.
- The **Remedy Identification Process** is used to achieve this objective.
- Resulting Artifact:
 - A document that associates ranked potential remedies with the documented issues.

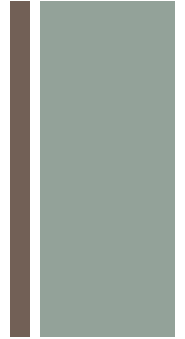


+ Phase 4 : Collectively Analyze and Conceptualize Solutions



- The primary goal of this phase is to conceptualize what the existing software could become and how the transformation could be achieved.
 - Software Architectures
 - Software Development Processes
- To obtain this goal, the **Conception Process** is executed.
- Resulting Artifacts:
 - High-level graphical models of potential Software Architectures.
 - High-level graphical models of potential Software Development Processes.

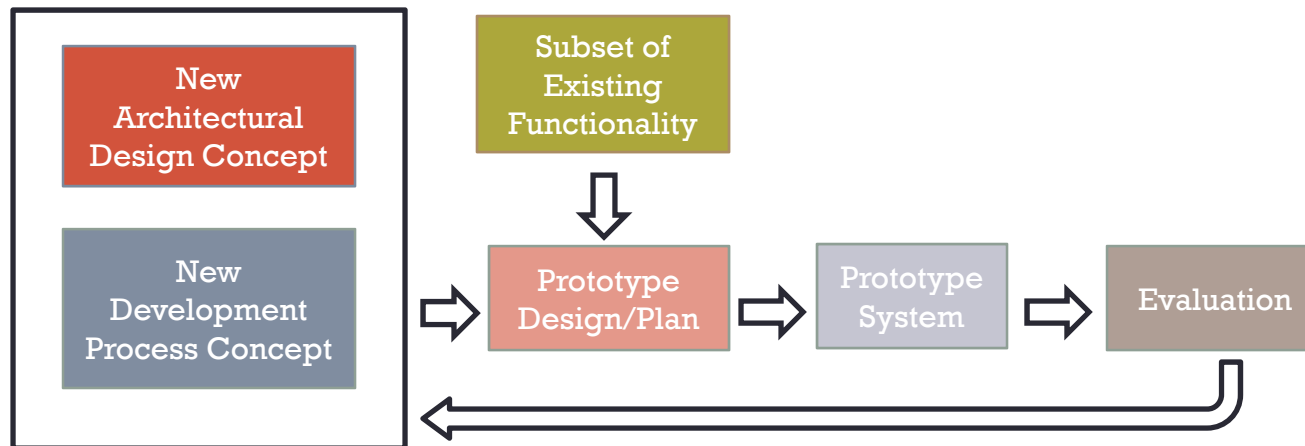
+ Phase 5 : Select a Solution to Refine



- The goal of this phase is to arrive at a pragmatic pairing of software architecture and software development process that is likely to result in a successful implementation.
- To facilitate this, the **Solution Selection Process** is executed.
- Resulting Artifact:
 - A prioritized list of architectures paired with a software development process.

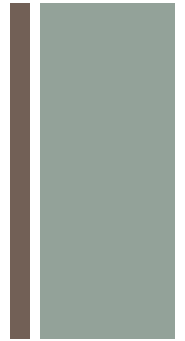
+ Phase 6 : Refine Solution with Rapid Prototyping

- The goal of this phase is to validate the pairing of a software architecture and software development process that ranked highest in the list produced in the previous phase.
- This is accomplished via the **Rapid Prototyping Process**.

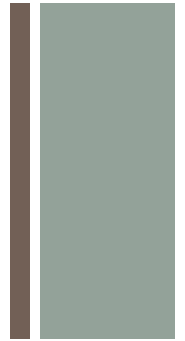


+ Phase 7 : Final Preparation for Software Development

- The final phase focuses on the evaluation of the prototype(s) produced in the previous phase, in order to determine if the project can feasibly be pursued.
- To evaluate the prototypes, the **Prototype Evaluation Process** is used.



+ Conclusion



- You have learned:
 - ✓ What the OCRPM is and why it is needed.
 - ✓ What the high-level objectives of each phase are and what sub-processes are used to attain these objectives.
- Questions & Answers