

Name: Opportunity Tree Framework

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Objective: Provide mechanisms to assist a manager or decision makers in selecting processes, methods and techniques to achieve certain goals.

Rationale: Experience bases can provide specific information about what has been accomplished with specific processes, methods and techniques on specific projects. Knowledge bases in the field of software engineering (such as defect reduction) either do not exist or if they do, contain knowledge that only sparsely cover an entire domain or a sub domain. Opportunity trees represent a way to effectively access and view such information.

Target Users: Software Engineering Staff, mainly decision makers; and software engineering practitioners in the research paradigm.

Scope: Software engineering and process management utilizing experience and/or knowledge bases.

Project Type: Opportunity Tree Framework is a multi-year project started in 2002 having core capabilities developed in Spring '02 as a CS577a course project and further evolution by USC-CSE's research personnel.

Runs On: Windows 9x/NT/Me/2000, Unix

IPR Status: Built on Hyperwave, which is publicly available, however the tailored tool and its contents are copyrighted to USC-CSE.

Technical Approach: Based on the CeBASE experience base (eBASE) concepts implemented using the Hyperwave Information Server and Hyperwave Information Portal, extensive prototyping and concept exploration was utilized to narrow in on an IKIWISI solution.

Developers: USC CSCI 577 Team 19, Spring 2002, including Apurva Jain, Kevin Wise, Rob Cordeau, Gordon Hopper and Gustavo Perez; and Alex Lam.

Future Directions: Integration of various Opportunity Trees such as Defect Reduction, COTS Assessment allowing mix and match of processes, methods and techniques to satisfy the desired goal.

Demo Description: Navigation through an Opportunity Tree for Defect Reduction, as an example of the framework's utilization.