IEEE/CS/ACM Software Engineering Coordinating Committee
Master Plan - 2000
Leonard L. Tripp, Chair, Dennis Frailey, Co-Chair

1.   Purpose

This plan presents an overview of key projects being sponsored by SWECC for 2000. The plan lists for each project or activity the tasks, target completion date and the completion criteria.

2.   Committee Activities

Tasks

• Prepare SWECC annual report
• Conduct SWECC annual meeting
• Update SWECC Master Plan
• Develop SWECC annual budget

Milestones

M00-O1 - 2000 Master Plan: Target date - February 2000
Completion criteria: Approved by Software Engineering Coordinating Committee

M00-02 - FY 2001 Budget: Target date - May 2000
Completion criteria: Approved by IEEE CS Executive Cmte and ACM Executive Cmte

3.   Collateral Projects

"Year 2001 Model Curricula for Computing: CC-2001"
Integration of CSAB into ABET

4.   Project Relationships

The figure below illustrates some of the relationships of the projects currently proposed to achieve the goals of the SWECC.

Code of Ethics

SWE Model Curriculum

Guide to SWEBOK

SWE Performance Norms

Potential Users

SWE Professionals

SWE Educators

Makers of Public Policy

Accreditation Agencies
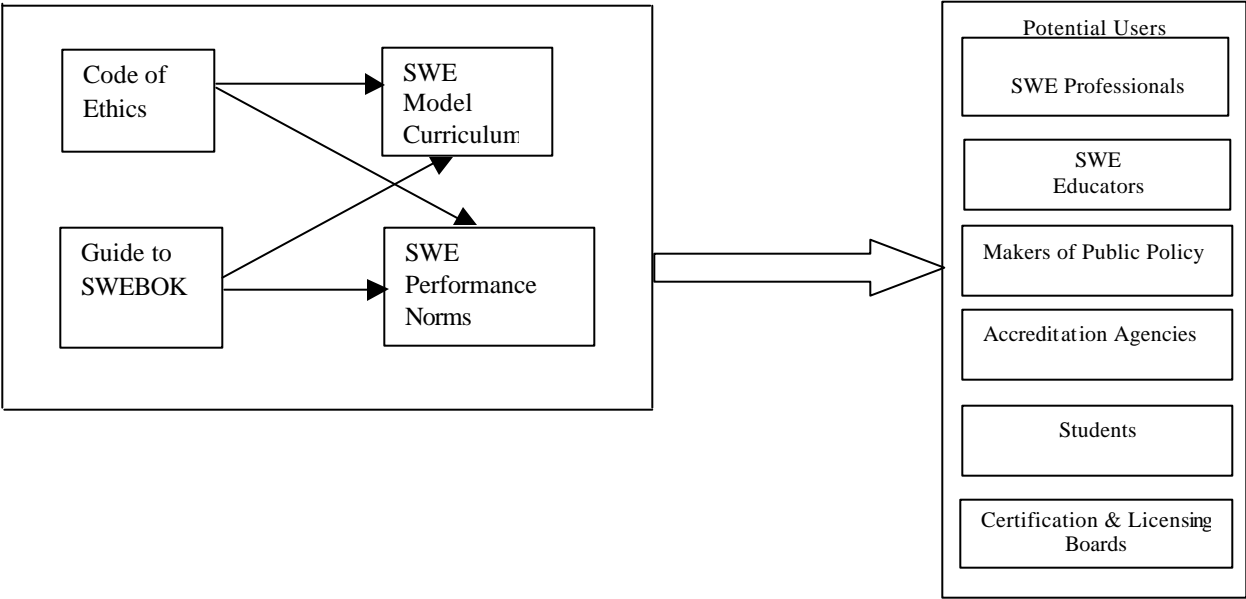
Students

Certification & Licensing Boards

Figure 1 SWECC Projects

5. Code of Ethics and Professional Practice Project

Pui ose

To promote the ethical and professional responsibilities and obligations of software engineers.

Tasks

• Prepare promotion materials for code of ethics and professional practice
• Publish code in archival publication

Milestones

M00-03 - Distribution of Code Chart - April 2000
Completion criteria: Distribution complete

6. Body of Knowledge Guide Project (Stoneman version)

Pu ose

To characterize the contents of the software engineering discipline, provide a topical access structure to the software engineering body of knowledge, clarify boundaries with related disciplines, provide a foundation for curiculum development and individual certification and licensing material, and promote a consistent view of software engineering worldwide.

Tasks

- Define list of knowledge areas for software engineering
- Identify knowledge areas from related disciplines that interface with software engineering
- Define topics for each knowledge area
- Identify reference material for each knowledge area
- Validate guide to software engineering body of knowledge
- Develop approach for moving from Stoneman SWEBOK Guide to Ironman SWEBOK Guide

Milestones

M00-04 - Guide to Software Engineering Body of Knowledge (Stoneman): Target date - April 2000
Completion criteria: Validation results approved by ACM and IEEE CS

7.   Performance Norms for Software Engineering Tasks

Purpose

To identify the knowledge/skill needed at different points in the career of a Software Engineer, in particular a graduate no experience and a graduate with four years experience. The software engineering tasks will be described in a document known as a test specification.

Tasks

- Develop knowledge and competency framework
- Identify and validate knowledge and competency areas
- Identify and validate relative importance of knowledge and competency areas
- Correlate software engineering undergraduate curriculum with knowledge and competency areas

Milestones

M00-05 - Performance Norm Plan: Target date - July 2000
Completion criteria: Approved by Software Engineering Coordinating Committee

M00-06 - Software Engineering Performance Norms: Target date - April 2001 (to be confirmed)
Completion criteria: Ballot results approved by ACM and IEEE CS

8.   Software Engineering Education Project (SWEEP)

Purpose

To address curriculum issues at the undergraduate level, and the basic specification for programs (at the level of accreditation guidelines) for programs which interface with the undergraduate program (specifically pre-professional technical programs, and several varieties of graduate programs).

Tasks

• Prepare undergraduate software engineering philosophy report
• Develop strawman undergraduate software engineering curriculum
• Analyse existing undergraduate software engineering education programs
• Develop software engineering technology accreditation guidelines
• Prepare software engineering master(s) level accreditation guidelines
• Establish and maintain software engineering education WEB site

Milestones

M00-7 - Strawman Undergraduate Software Engineering Curriculum date - Dec 2000
Completion criteria: Approved by Software Engineering Coordinating Committee

M00-8 - Software Engineering Master(s) Level Accreditation Guidelines: Target date - Dec 2000
Completion criteria: Approved by Software Engineering Coordinating Committee

9.   Annual Surveys of International Software Engineering Programs

Purpose

To provide a continuing and reliable source of data regarding the colleges and universities (private, public, military, consortia, international) offering degrees, programs, and certificates in the software engineering field.

Tasks

•   Distribute mini-survey to all known colleges, universities, consortia, etc. that offer software engineering curricula.