TEST DESIGN TECHNIQUE

SOFTWARE TESTING

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Objectives

- Ability to identify standards associated with software testing
- Methods of doing white box testing
- Methods of doing black box testing



Software Testing Standards

"Guideline documentation that reflects agreements on products, practices, or operations by nationally or internationally recognized industrial, professional, trade associations or governmental bodies".



Benefits of the standards

- Improvement of third party quality assessment practices
- Increased number of professionals in the sphere of the software testing
- Stable documentation base for software developers

Types of Standards

- 1. ICE- International Electrotechnical Commission
- 2. ANSI- American National Standards Institute
- 3. ISO- International Organization for Standardization
- 4. IEEE Institute of Electrical and Electronics Engineers
- 5. CMM Capability Maturity Model
- TickIT
- 7. 6 Sigma

1. ICE - International Electrotechnical Commission

International standards organization that prepares and publishes international standards for all electrical, electronic and related technologies – collectively known as "electrotechnology".

- ➤ **Purpose**: Standardization for electrical technology, electronic and related
- ➤ Membership: 86 countries
- >Founded: 26 June 1906, London, United Kingdom
- >Type of business: Non-profit organization
- > Headquarters: Geneva, Switzerland



2. ANSI - American National Standards Institute

- ANSI is a private sector non-profit organization that is responsible for accrediting standards developing organizations in the United States.
- > Purpose: Standards organization
- ➤ Membership: 125,000 companies and 3.5 million professionals
- **≻Founded**: May 14, 1918
- >Type of business: Non-profit organization
- ➤ **Headquarters**: Washington, D.C., USA



3. ISO - International Organization for Standardization

- ISO is an international standard-setting body and nonprofit organization that develops and publishes standards of virtually possible for every organization.
- > Purpose: International Standardization
- **➤ Membership**: 164 members
- **Founded**: 23 February 1947
- >Type of business: Non-governmental organization
- > Headquarters: Geneva, Switzerland

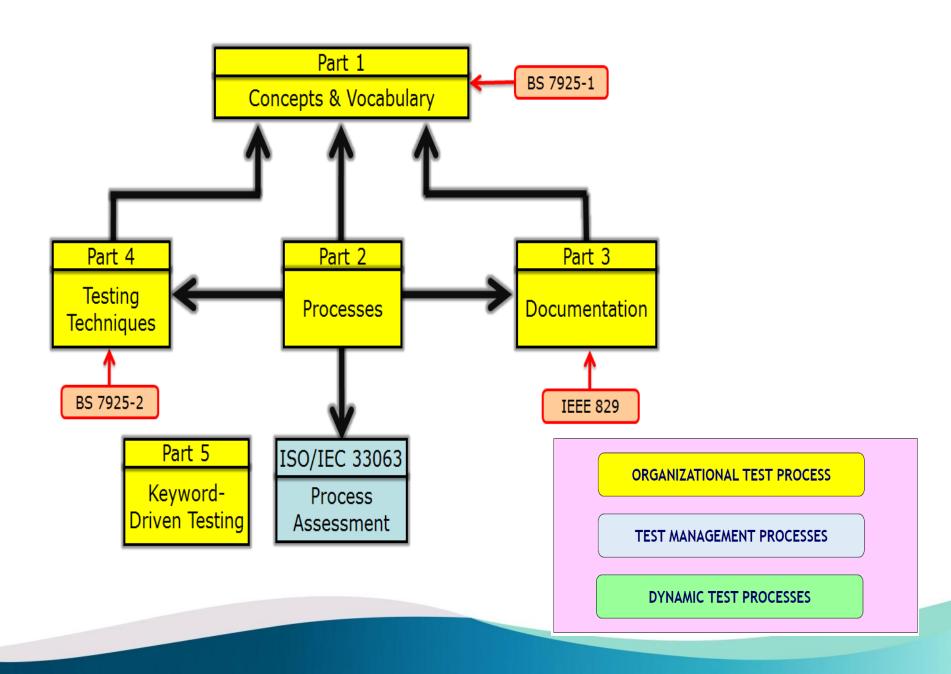
4. IEEE - Institute of Electrical and Electronics Engineers

- The IEEE fosters the development of standards that often become national and international standards. The organization publishes a number of journals, has many local chapters, and several large societies in special areas, such as the IEEE Computer Society.
- > Purpose: International Standardization
- ➤ Membership: 164 members
- **Founded**: January 1, 1963
- >Type of business: Non-governmental organization
- >Headquarters: Geneva, Switzerland



ISO/IEC/IEEE 29119 Software Testing The International Software Testing Standard

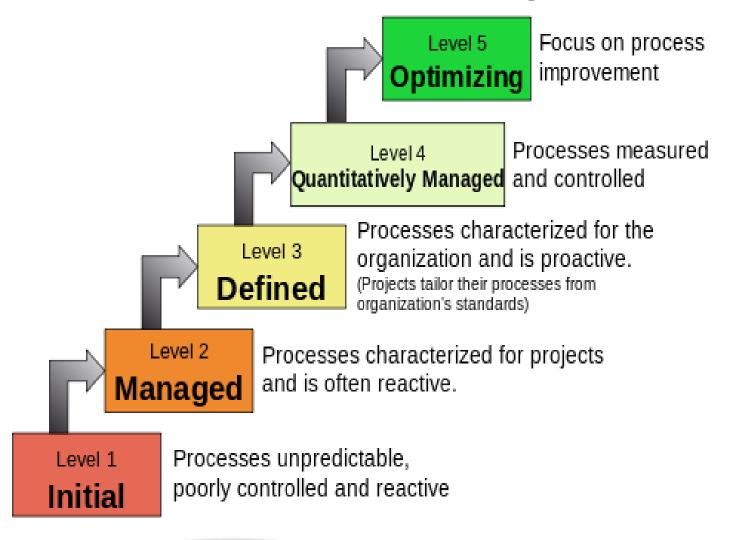
- ISO/IEC/IEEE 29119-1: Concepts & Definitions (published Sept. 2013)
- ISO/IEC/IEEE 29119-2: Test Processes (published Sept. 2013)
- ISO/IEC/IEEE 29119-3: Test Documentation (published Sept. 2013)
- ISO/IEC/IEEE 29119-4: Test Techniques (expected publication late 2014)
- ISO/IEC/IEEE 29119-5: Keyword Driven Testing (expected publication 2015)



5. CMM - Capability Maturity Model

- The Capability Maturity Model (CMM) is a methodology used to develop and refine an organization's software development process.
- The CMM is similar to ISO 9001, one of the ISO 9000 series of standards specified by the International Organization for Standardization (ISO).
- The model describes a five-level evolutionary path of increasingly organized and systematically more mature processes.

Characteristics of the Maturity levels



Questions?