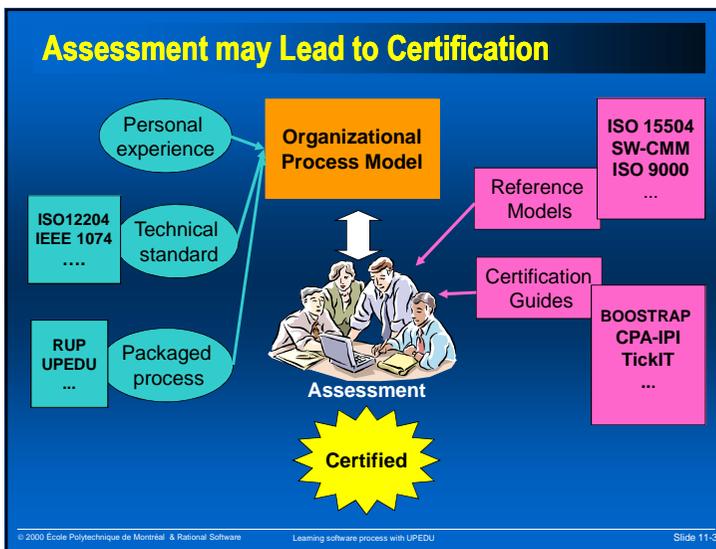
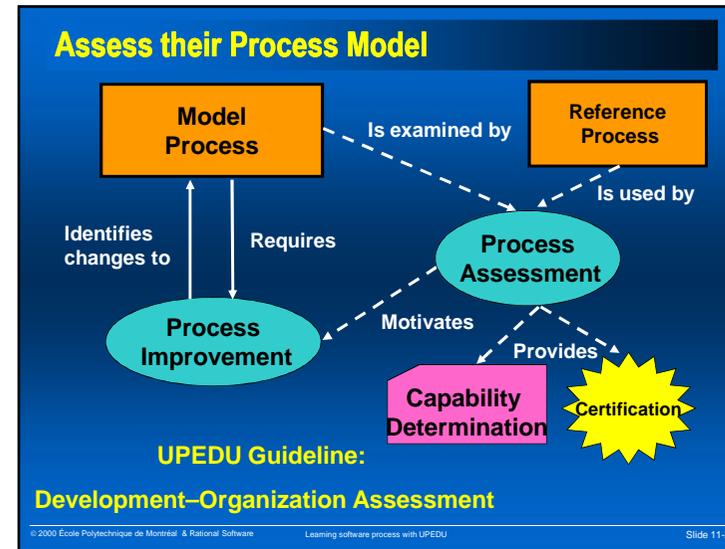


Software Process Assessment - Outline

- ◆ **Defining Process and Reference Models**
 - Organization's Process Model
 - Reference Model
 - Assessing a Software Process
- ◆ **Registration and Certification**
- ◆ **Assessing UPEDU**

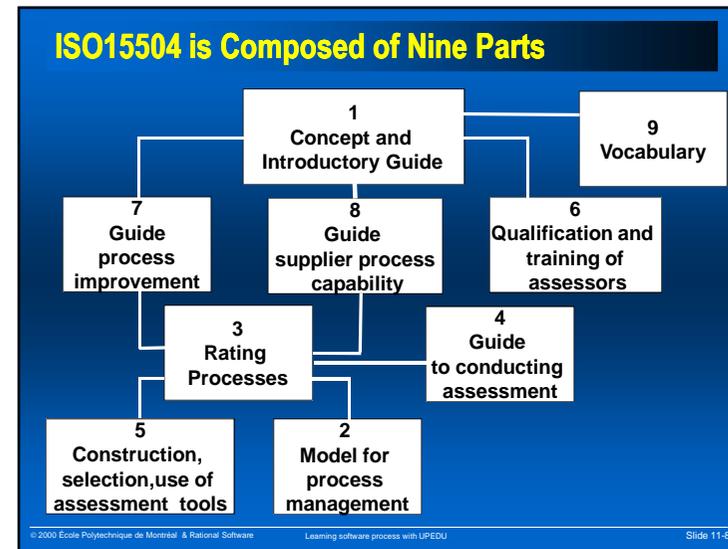
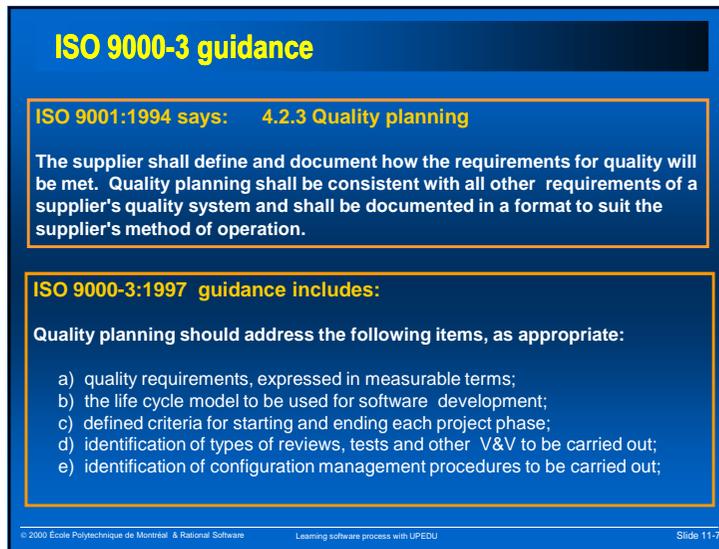
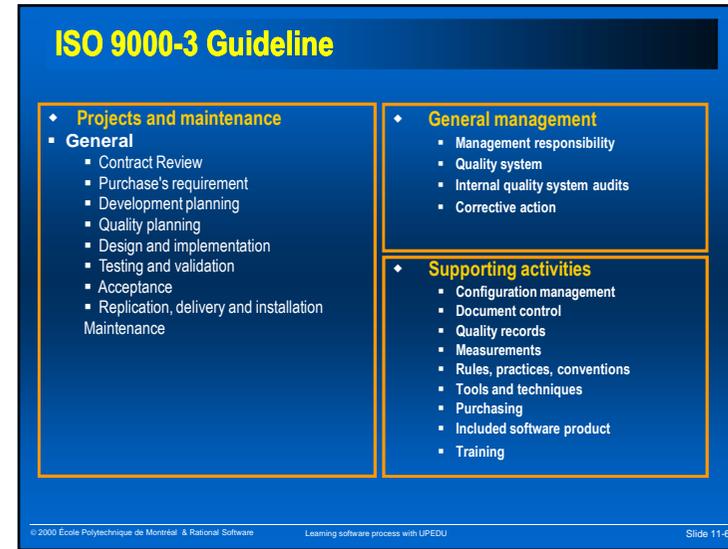
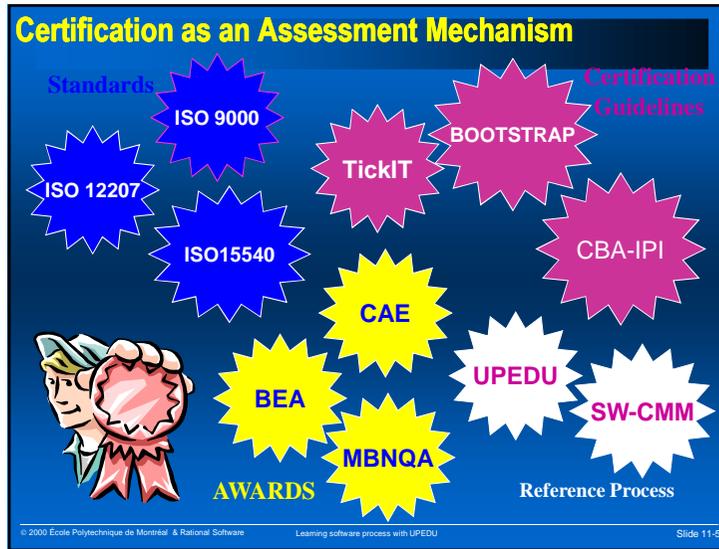
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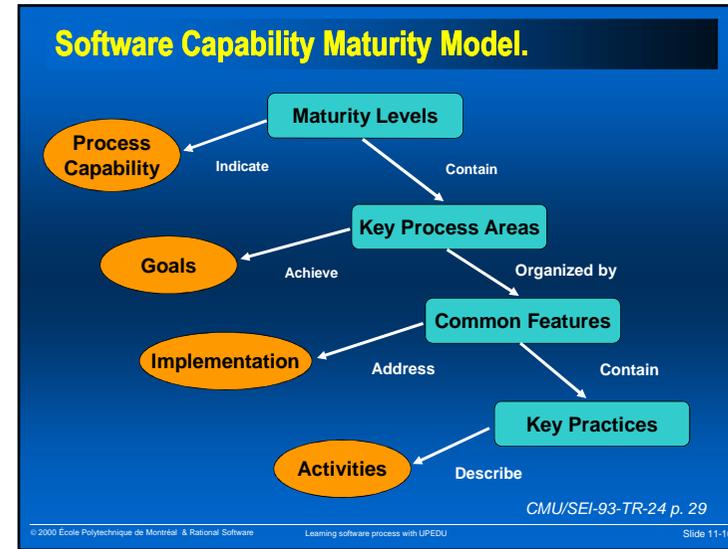
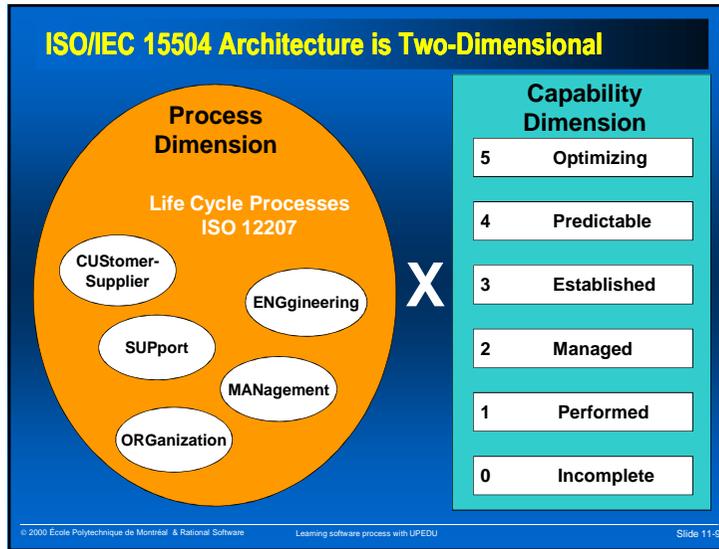


Software Process Assessment - Outline

- ◆ **Defining Process and Reference Models**
- ◆ **Registration and Certification**
 - ISO 9001: Quality Systems - Model for Quality Assurance in Design/Development, Production, Installation and, Servicing
 - ISO/IEC 15504: Information Technology – Software Process Assessment
 - The Software Capability Maturity Model (SW-CMM)
- ◆ **Assessing UPEDU**

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- ### Each Maturity Level
- ◆ **5. Optimizing :**
 - Continuous process improvement: quantitative feedback from the process and from testing new ideas and technologies.
 - ◆ **4. Managed :**
 - Detailed measures are collected: software and product quality.
 - ◆ **3. Defined :**
 - Activities are documented, standardized and integrated into an organization-wide software process.
 - ◆ **2. Repeatable :**
 - Basic management processes: cost, schedule and functionality
 - ◆ **1. Initial :**
 - *ad hoc* process. Success depends on individual effort.
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- ### Process Assessment - Outline
- ◆ Defining Process and Reference Models
 - ◆ Registration and Certification
- ◆ **Assessing UPEDU**
 - Level 2 Key Process Area and Goals
 - Level 3, Key Process Area and Goals
- UPEDU CONCEPTS: Process Quality**
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Level 2 KPAs and Goals

- ◆ **Requirements Management**
 - G-1 Requirements are controlled to establish baseline
 - G-2 Artifacts are kept consistent with requirements
- ◆ **Software Project Planning**
 - G-1 Estimates are documented for planning and tracking
 - G-2 Project activities are planned and documented
- ◆ **Software Project Tracking and Oversight**
 - G-1 Results and performances are tracked against plans
 - G-2 Changes to commitments are agreed to by affected group
- ◆ **Software Subcontract Management**
 - These four goals fall beyond the scope of the UPEDU.

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Level 2 KPAs and Goals *continue*

- ◆ **Software Quality Assurance**
 - G-1 SQA activities are planned
 - G-2 Adherence of products and activities to standard is verified
 - G-3 Affected groups are informed of SQA activities and results
 - G-4 Noncompliance issues are addressed
- ◆ **Software Configuration Management**
 - G-1 Configuration management activities are planned
 - G-2 Selected work products are identified, controlled and available
 - G-3 Changes to work products are controlled
 - G-4 Affected groups are informed to the status and content of baselines

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Level-3 KPAs and Goals

- ◆ **Organization Process Focus**
 - G-1 Software process activities are coordinated
 - G-2 Strengths and weaknesses of software process are identified
 - G-3 Organizational level process activities are planned
- ◆ **Organization Process Definition**
 - G-1 A standard software process for the organization is developed
 - G-2 Information related to the use of software process is collected and reviewed
- ◆ **Training Program**
 - Organizational responsibilities
- ◆ **Integrated Software Management**
 - G-1 Project software process is customized from standard process

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Level-3 KPAs and Goals *continued*

- ◆ **Integrated Software Management (continued)**
 - G-2 Project planned and managed according to software process
- ◆ **Software Product Engineering**
 - G-1 Tasks are defined, integrated and consistently performed
 - G-2 Software products are kept consistent with each other
- ◆ **Intergroup Coordination**
 - G-1 Requirements are agreed to by all groups
 - G-2 Commitments between various groups are agreed to by all
- ◆ **Peer Reviews**
 - G-1 Peer reviews are planned
 - G-2 Defects are identified and removed

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