



# ISO 9001:2000 Implementation Model

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Prepared for:

Central Ohio Quality Assurance Association – January 10, 2006



## What is ISO?

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- ISO 9001:2000 is an international standard for quality management systems
- The word ISO is said to come from:
  - Greek word "ISOS" meaning equal
  - *International Organization for Standardization*





## ISO Says...

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- ISO standards specify the requirements for state-of-the-art products, services, processes, materials and systems.
- ISO standards are designed to be implemented worldwide.



## More on ISO...

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- Based in Geneva, Switzerland
- 149 member countries (as of March 2005)
- 15,036 standards (as of March 2005)
- ANSI represents USA
- Two URLs to remember :
  - ISO Online : [www.iso.org](http://www.iso.org)
  - ISO Café : [www.iso.org/isocafe](http://www.iso.org/isocafe)



## Examples

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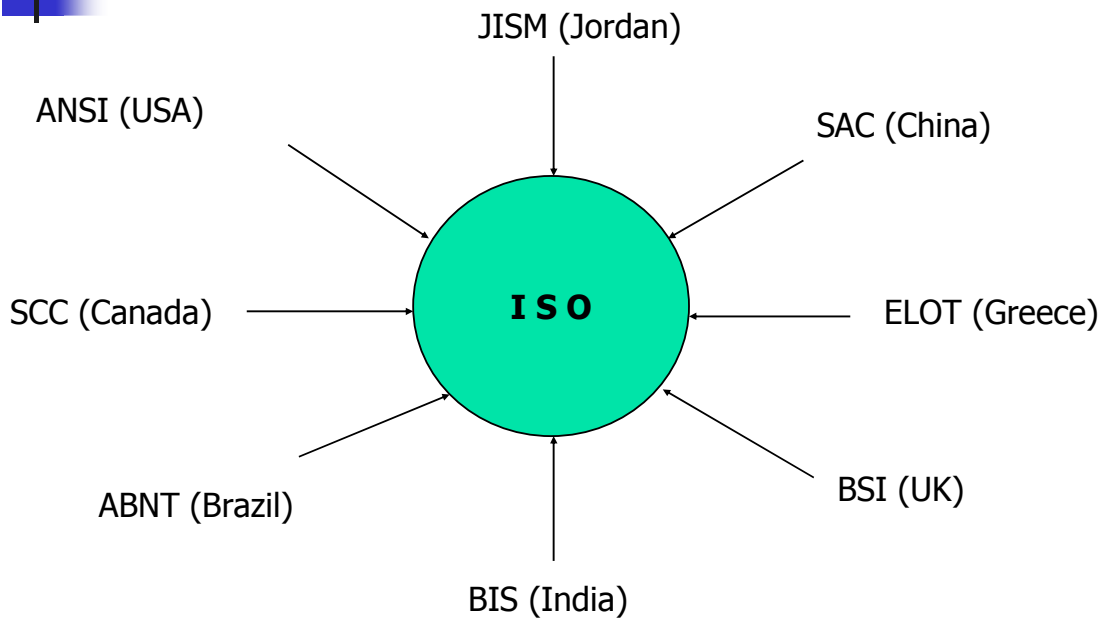
- ISO 216:1975 --- Paper Sizes
- ISO 3779 ---- V I N
- ISO 10256:2003 ---- Head & Face Protection for Use in Ice Hockey

## Examples

- ISO 3591:1977 ---- Wine Tasting Glass / Sensory Analysis

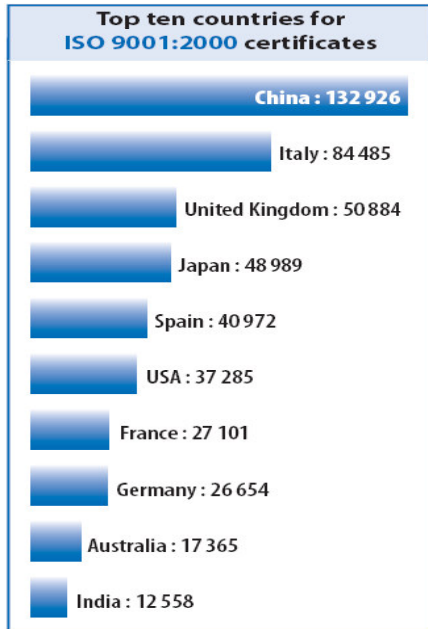


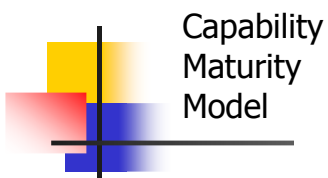
# ISO: The Common Denominator





# ISO 9000 Survey 2004



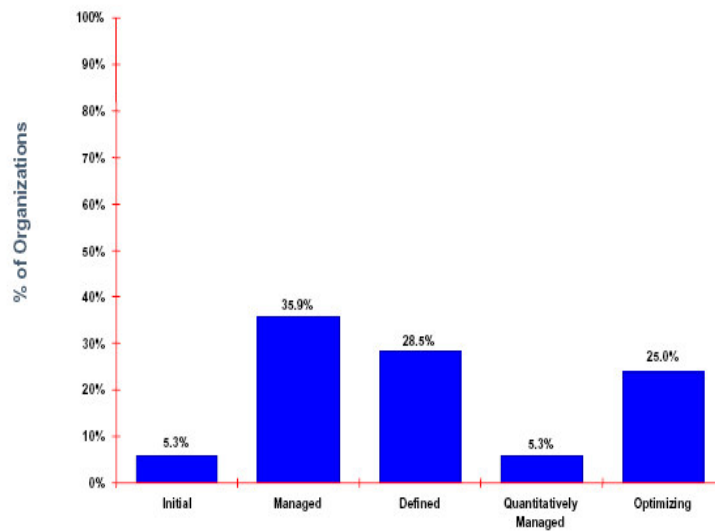


Capability  
Maturity  
Model

Carnegie Mellon  
Software Engineering Institute



## Maturity Levels by Reporting Organizations (9/28/04)



Based on most recent appraisal of 340 organizations reporting a maturity level rating.

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CMMI Overview Page 51



# Outline

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- ISO 9000 Family of Standards
- Main Clauses of ISO 9001:2000
- The ISO 9000 Process-Approach Model
- Versus Capability Maturity Model
- SQPS Implementation Model
- Q & A



# ISO 9000 Family of Standards

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- ISO 9000:2000 → Revision Alert (2005)
  - Provides quality management system principles
  - Describes what the series is about
  - Lists basic definitions of terms
- ISO 9001:2000
  - Specifies requirements for quality management (QMS) systems for contractual use
  - Includes 5 primary clauses with 23 sub-clauses



# ISO 9000 Family of Standards

-cont.

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- ISO 9004:2000
  - Provides guidance for establishing a QMS
  - Goes beyond ISO 9001 to meet or exceed customer expectations
  - Not required for certification
- ISO 19011
  - Provides guidance on planning and conducting quality audits for both quality and environmental management systems



# Main Clauses of ISO 9001:2000

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- Quality Management System
  - General Requirements
  - Documentation Requirements



## Main Clauses of ISO 9001:2000 –cont.

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- Management Responsibility
  - Management Commitment
  - Customer Focus
  - Quality Policy
  - Planning
  - Responsibility, Authority, & Communication
  - Management Review



## Main Clauses of ISO 9001:2000 –cont.

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- Resource Management
  - Provision of Resources
  - Human Resources
  - Infrastructure
  - Work Environment



## Main Clauses of ISO 9001:2000 –cont.

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- Product Realization
  - Planning of Product Realization
  - Customer-Related Processes
  - Design & Development
  - Purchasing
  - Production & Service Provision
  - Control of Monitoring & Measuring Devices



## Main Clauses of ISO 9001:2000 –cont.

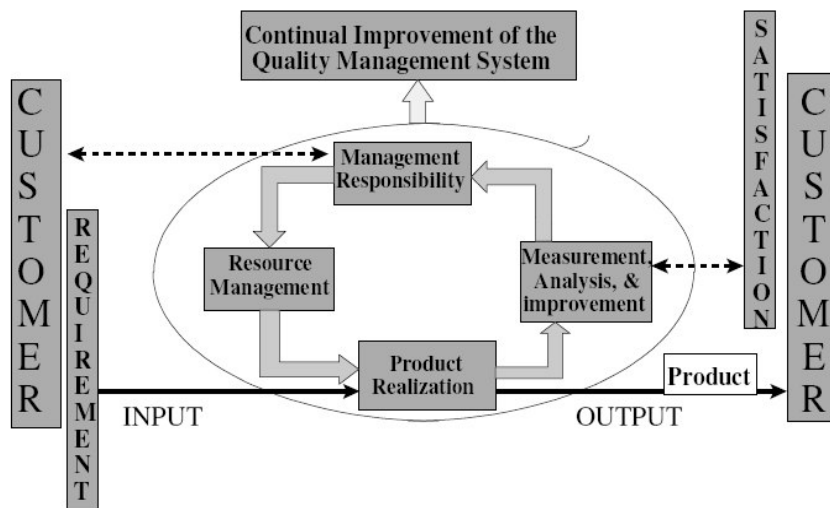
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- Measurement, Analysis & Improvement
  - General Requirements
  - Internal Audits
  - Product & Process Monitoring
  - Control of Nonconforming Product
  - Analysis of Data
  - Improvement (Including Corrective / Preventive Action)



## Process Approach Model

This is not a requirement but an example to reflect all processes in the quality management system





## SQPS Model

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- SQPS implementation model is a detailed process-approach
- It shows interfaces and interactions among processes

[Click Here for Model](#)



## Capability Maturity Model

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- The Capability Maturity Model (CMM) was developed by the Software Engineering Institute (SEI), Carnegie Mellon University, Pittsburgh, PA beginning in 1986
- The CMM is a framework that describes the key elements of an effective process



## Capability Maturity Model -Cont.

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- There are five levels of progressive process maturity (1. Initial, 2. Repeatable, 3. Defined, 4. Managed, and 5. Optimizing)
  - Level 1-2 is the disciplined process;
  - Level 2-3 is the standard consistent practice;
  - Level 3-4 is the predictable process; and
  - Level 4-5 is the continuously improving process.



# Thank You!

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- This presentation is available at

[www.shraimqps.com](http://www.shraimqps.com)