

Software Quality Methods

Douglas Hoffman
Software Quality Methods
1449 San Tomas Aquino
San Jose, California 95130
(408) 984-7560

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Overview

- Purpose for Software Quality Group
- Roles for Software Quality Group
- Software Development Life Cycles
- Organization Maturity
- ISO 9000
- What's not covered
- Conclusions

Purpose of the Software Quality Group

- Testing Products
- Measurement of Products
- Measurement of Process
- Definition of Process
- Reference Resource

Roles for Software Quality Group

- Extension of Development for Debug
- Test Hurdle for Release
- Providers of Data
- Active Product Developers
- Process Control
- Process Definition

Goals versus Roles

Goal	Role
Test Product	Testers
Measure Product	Quality hurdle
Measure Process	Information Engineering
Define Process	Process Engineering
Guidance Resource	Quality Engineering

Software Development Life Cycles

- Waterfall
- Prototyping
- Spiral
- Decomposition/Integration
- Cleanroom
- Fourth Generation Techniques

Life Cycle Product Requirements

Life Cycle	Product Requirements
Waterfall	Known, unchanging
Prototyping	Unknown, changing
Spiral	Unknown, unchanging
Decomp/Integrate	Known, unchanging
Cleanroom	Known, provable

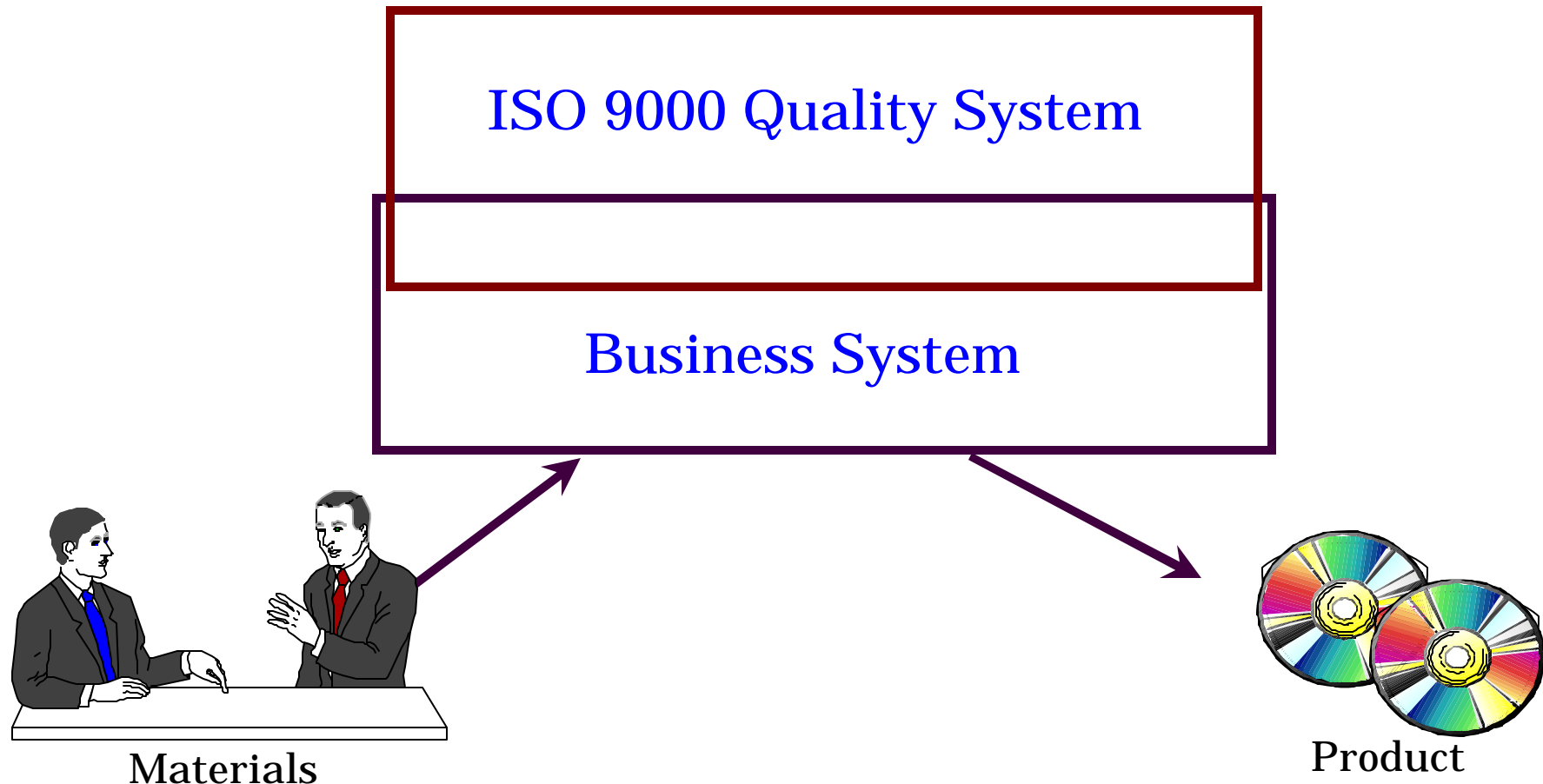
Organization Maturity

- Initial
- Repeatable
- Defined
- Managed
- Optimizing

Typical Roles

Maturity Level	Role
Initial	Testing
Repeatable	Quality hurdle
Defined	Metrics
Managed	Process management
Optimizing	Reference resource

Quality System Relation To Product



Materials

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Product

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What the Models Don't Cover

- Product Quality
- Business Process
- Fit of Quality Program
- How-to's

Conclusions

- Establish baseline
- Define quality group role
- Set goals for evolution
- Start improvement program