

The Quality Goes In **Before** The Solution Goes Out

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Implementing QM in FM



Today's Goals

- Define quality management (QM)
- Present 2-3 case studies
 - ◆ Situation
 - ◆ Actions
 - ◆ Results
 - ◆ Lessons
- Summarize benefits of QM in FM
- Answer your questions

Quality Management (QM)

- Leads and operates the organization
- Continually improves performance
- Focuses on customers (external) and users (internal)
- Addresses needs of other stakeholders: executives, government, regulatory, and consumers
- Is a fundamental belief in doing business that permeates the entire organization

QM Principles

- Customer-focused organization
- Leadership
- People involvement
- Process approach
- Systems approach to management
- Continual improvement
- Factual decision-making
- Mutually beneficial supplier relationships

QM Goes With The Job



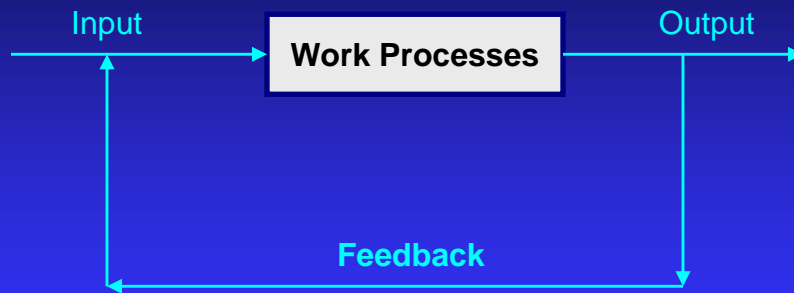
Some FM Measures for QM

- Time
 - ◆ Responsiveness to requests
 - ◆ Scheduled versus actual service dates
 - ◆ Completion dates for preventive maintenance (PM)
 - ◆ Work status of services
- Costs
 - ◆ Estimated versus actual costs
 - ◆ Competitive user charges
- Value
 - ◆ Customer satisfaction
 - ◆ No re-work and/or surprises
 - ◆ Good skills levels
 - ◆ No breakdowns

Introducing QM into FM



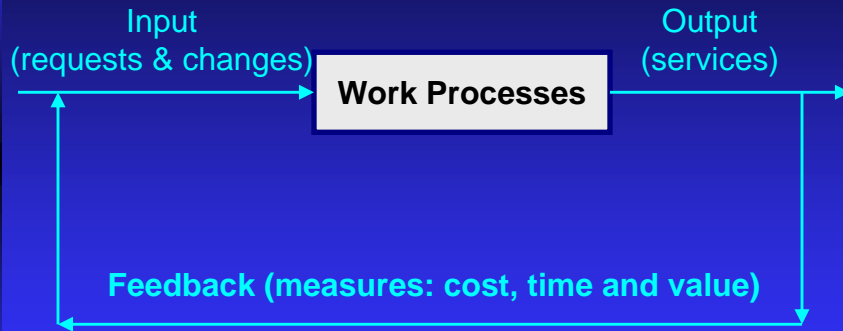
Typical Process Diagram



Feedback

- Critical for QM
 - ◆ Realistic success
 - ◆ Performance data
 - ◆ Hearing "problems"
- Gathering Input
 - ◆ Historical and statistical data
 - ◆ Customer surveys and focus groups
 - ◆ FM worker suggestions
 - ◆ Industry standards and best practices
- Improving Output
 - ◆ Lower costs and faster timing
 - ◆ Fewer errors and re-works
 - ◆ Continually becoming better

FM Process Diagram



A Walk in the Park ?



Case Study #1: Requested Maintenance

■ Situation

- ◆ Users dissatisfied with timeliness and/or costs of facility and equipment repairs or changes to buildings

■ Data Gathered

- ◆ History of work requests
- ◆ Customer satisfaction feedback
- ◆ FM worker ideas and input
- ◆ Benchmarking

■ Decision

- ◆ Established new maintenance process

#1: Requested Maintenance

■ Old Process

- ◆ One phone number for calls and data input to computer
- ◆ Work order dispatched to FM worker

- ◆ FM worker obtains parts and completes job

- ◆ FM worker closes work order,

#1: Requested Maintenance

- New Process (key changes in Italics)
 - ◆ One phone number for calls and data input to computer
 - ◆ Work order dispatched to FM worker
 - ◆ *“House call” with user to verify situation*
 - ◆ *Performance “contract” agreed to (time and cost)*
 - ◆ FM worker obtains parts and completes job
 - ◆ *Users inspect job completion*
 - ◆ FM worker closes work order,
 - ◆ *User returns feedback survey*

#1: Requested Maintenance

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 - ◆ Users inspect job completion
 - ◆ FM worker closes work order,
 - ◆ User returns feedback survey
- End Results
 - ◆ 27% fewer errors in ordered parts
 - ◆ 43% reduction in costs
 - ◆ 98.4% user satisfaction

#1: Requested Maintenance

■ QM Principles

- ◆ Customer focus
- ◆ Process approach
- ◆ Facts for decision-making
- ◆ Leadership

■ Lessons Learned

- ◆ Users want to know work status
- ◆ FM must meet with users to confirm problem
- ◆ “Contracting” allows time for ordered parts to arrive
- ◆ User review of job completion eliminates re-work

Prevention



Case Study #2: Preventive Maintenance

- Situation
 - ◆ Workers and contractors were not doing PM when required or not doing it correctly
- Data Gathered
 - ◆ PM errors and downtime incidents
 - ◆ Reasons for their occurrence
 - ◆ Training time and on-the-job usage
- Steps Taken
 - ◆ Standardized types of major equipment
 - ◆ Established training program for workers
 - ◆ Held seminars and workshops with suppliers
 - ◆ Set up quality checks of PM work

#2: Preventive Maintenance

- New Activities
 - ◆ Training programs for everyone
 - ◆ Computerized PM procedures
 - ◆ Quality checks (oil, filters, belts, alarms)

#2: Preventive Maintenance

■ New Activities

- ◆ Training programs for everyone
- ◆ Computerized PM procedures
- ◆ Quality checks (oil, filters, belts, alarms)

■ End Results

- ◆ Failure rate reduced almost to zero
- ◆ Spare parts purchased only when needed, saving 56% in inventory costs and space
- ◆ Workers energized and confident of skills
- ◆ Strengthened supplier roles and contracts

#2: Maintenance Preventive

■ QM Principles

- ◆ Continual improvement
- ◆ Supplier relationships
- ◆ People involvement

■ Lessons Learned

- ◆ Training essential for new buildings and equipment as they are transferred to FM
- ◆ Suppliers supported in training on their equipment
- ◆ Good PM eliminates expensive emergency labor and severe building downtime

From The Ground Up



Case Study #3: Project Implementation

- Situation
 - ◆ After several projects in USA and Europe, a combination lab/office building was planned in Shanghai
- Data Gathered
 - ◆ Site and utility information
 - ◆ Local codes and regulations
 - ◆ Contractor capabilities
 - ◆ User requirements
- Steps Taken
 - ◆ Hired local Design Institute for architecture/engineering
 - ◆ Communicated standards and requirements
 - ◆ Established people contacts and their roles
 - ◆ Blended Chinese and corporate processes

#3: Implementation

- Project Differences
 - ◆ Communications
 - ◆ Transfer of knowledge and standards
 - ◆ Documentation of requirements
 - ◆ Contractor reviews
 - ◆ Supplier qualifications

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- Project Differences
 - ◆ Communications
 - ◆ Transfer of knowledge and standards
 - ◆ Documentation of requirements
 - ◆ Contractor reviews
 - ◆ Supplier qualifications
- End Results
 - ◆ 97% of budget and (only) three weeks late
 - ◆ First-time acceptance by Quality Bureau
 - ◆ All local codes and regulations met
 - ◆ No worker injuries more serious than first-aid calls
 - ◆ Facility currently being expanded to double in size

#3: Implementation

- QM Principles
 - ◆ Leadership
 - ◆ People involvement
 - ◆ Factual decision-making
 - ◆ Supplier relationships

- Lesson Learned
 - ◆ Feedback is essential
 - ◆ Communications needed in all directions
 - ◆ Supplier management is vital
 - ◆ Safety training and corrections successful
 - ◆ Everyone (almost) wants to do a good job

Benefits of Using QM

- You know how well you are serving your customers; there are no surprises.

- You will continually improve your service output for cost, timing, and quality.

- You will be the most competitive supplier of products and services to your users.

- You will demonstrate your value to the organization, both short and long-term.

FM and QM Conclusions

- FM takes care of the built environment and virtual workplace so the organization will be successful.
- QM ensures customers are satisfied with a sound process that delivers services based on meeting their needs.
- QM in FM is an essential way to do business.

Looking Ahead with QM

“No one can go back and make a brand new start.....

But anyone can start from here and make a brand new end.”