Process Documentation Techniques
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**What ....**

Document and measure key business processes

**How ....**

Utilize a common process documentation methodology, and a common set of documentation formats.
**Process Types and Definitions**

**Production Process** - Any process that comes into physical contact with the product that will be delivered to an external customer.

**Business Process** - All service processes that support the production processes.
Business Process Documentation Steps

(Method)

• Step 1 - Name Process and Assign Ownership
• Step 2 - Define Process Boundaries
• Step 3 - Document Operational Definitions
• Step 4 - Document Process Flow
• Step 5 - Define Control Points and Measurement
• Step 6 - Assess and Validate
• Step 7 - Communicate and Implement

• Step 8 - Identify / Prioritize Opportunities
• Step 9 - Develop Implementation Plans / Change Process

Continuous Improvement Cycle
Documentation Tool Set

What it provides .......

Business Purpose / Measures Chart:
• Identifies Business Purpose, Process Name, Process Owner and Customers, Process Measurements to be used in evaluating process improvements

Top Flow Down Chart:
• Identifies process flow Step Names, Sequences
• Identifies necessary Tasks for each step

Roles / Responsibilities Chart:
• Maps the Steps and Tasks with Primary Owners
• Identifies Contributing Participants and Customers
• Identifies Key Deliverables for Step

Rummler (Channel) Chart:
• For each task: Task Number, Name, Owner, Description, Duration, Key Deliverables, Necessary Inputs, Sources of Input, and Resources
• Process documented and timed
• Multiple process display by resource
• Provides integration capability
Process Definitions

- **Process:** Any activity or group of activities that takes an input, adds value to it, and provides an output to an internal or external customer.

- **Business Process:** All service processes and processes that support production processes. A *group of logically related tasks* that use the resources of the organization to provide *defined results* in support of the organization’s objectives.
Matrix for Setting Process Priorities

Customer Impact

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
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</thead>
<tbody>
<tr>
<td>High</td>
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<td>Medium</td>
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<td>Low</td>
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Improvement Opportunity

<table>
<thead>
<tr>
<th>Priority</th>
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<tbody>
<tr>
<td>Top</td>
</tr>
<tr>
<td>High</td>
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<tr>
<td>Medium</td>
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<tr>
<td>Low</td>
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Process Documentation Steps
(Step 1)

• **Name Process and Assign Ownership**

  • Process Owner is responsible and accountable for the operational quality of the process

  • Owner's position in the organization assures the ability to influence change in practices and procedures and to implement a plan for improvement

  • Owner is specifically responsible for:
    - Defining the subprocesses
    - Establishing subprocess ownership
    - Identifying critical success factors and key dependencies
    - Ensuring integrity of information, including measurements (i.e. exit criteria)
Criteria for Determining Process Owners

• Who is the person with the most:
  • Ownership
    – Resources (People, systems)?
    – Work (time)?
    – Pain (critiques, complaints, fire fighting)?
    – Actual (or potential) credit?
    – Ability to effect change
  • Power to Act on the Process
    – Who is the person who operates at a level high enough to:
      » Influence changes in policies and procedures affecting the process?
      » Commit to a plan and implement changes?
      » Monitor the effectiveness and efficiency of the process?
Criteria for Determining Process Owners (continued)

• **Who is the person with the most:**
  – Leadership Ability

• **Who is most appropriately:**
  – Perceived as highly credible?
  – Able to support and encourage improvement team member efforts?
  – Willing to change
  – Able to deal with higher-level management?
  – Able to knock down roadblocks?
  – Unafraid to take risk?
  – Able to live up to commitments?

• **Process Knowledge**
  – Who has a good understanding of the total overall process?
A single process can have as many as five different types of customers...

1. Primary Customer - Customers who directly receive the output from the process.

2. Secondary Customer - Customers outside the process boundaries that receive output from the process but are not directly needed to support the mission of the process.

3. Indirect Customer - Customers within the organization who do not directly receive the output from the process but are affected if the output from the process is wrong and/or late.

4. External Customer - Customers outside the company who receive the end product or service.

5. Consumers - Customers that are indirect and external.

Source: H.J. Harrington / Business Process Improvement
Why Measure?

Measurements are key ..........
If you can not measure it, you can not control it ........
If you can not control it, you can not manage it ........
If you can not manage it, you can not improve it !!!
Effectiveness
The extent to which the outputs of the process meet the needs and expectations of its customers

Efficiency
The extent to which resources are minimized and waste is eliminated in the pursuit of effectiveness

Adaptability
The flexibility of the process to handle future, changing customer expectations and special customer requests

Business Process Measures

- Effectiveness
  - Timeliness
  - Accuracy
  - Performance
  - Responsiveness
  - Durability

- Efficiency
  - Resources / Unit
  - Value Added Cost / Unit
  - Percentage of Value Added Time
  - Quality Cost / Unit
  - Wait Time / unit

- Adaptability
  - Percentage of time special requests are escalated
  - Average Time / Special Request
  - Percentage of special requests turned down
Process Documentation Steps
(Step 2)

- Define Process Boundaries
  - Definition should include:
    - Process begins with....
    - Process includes....
    - Process ends with....
  - Specify process customers and tangible outputs the process delivers to them
  - Work with customers to define measurements to determine if the process outputs meet their requirements
  - Specify suppliers and what they provide for the process to function correctly
  - Specify process implementers who manage tasks and resources within the process
Business Purpose / Measures Chart

**Business Purpose:**
Describe in 15 words or less the business purpose or primary function of the process

**Process Name:**

**Process Owner:**

**Customers:**
List primary customers that will receive the major outputs of the process

**Starts With:**
Define starting point or beginning boundary

**Ends With:**
Define end point or finish boundary

**Effectiveness**
List those measures to which the outputs of the process meet the needs and expectations of its customers (quality)

**Efficiency**
List those measures to which resources are minimized and waste is eliminated in the pursuit of effectiveness (productivity)

**Adaptability**
List those measures that capture the flexibility of the process to handle future, changing customer expectations and special requests (Flexibility)

**Measurements**
List those measures to which the outputs of the process meet the needs and expectations of its customers (quality)
Process Documentation Steps
(Step 3)

• **Document Process Flow**

  • Document current process down to activity level
    (Top Flow Down Chart)

  • Graphically portray major steps and identify relationships of subprocesses and activities. Include all tasks within the process boundaries and the groups or individuals responsible for performing them.
    (Rummler Process Flow Charts)

  • Describe each step in the sequence it occurs
    (Subprocess and Procedure Flow Charts and notes)

  • Record the timing (effort or duration) of each task in the process.
    (for simulation using iGrafx Process tool)
Top Flow Down Process Chart

Process Name

Step #1
Major Steps to process

Step #2

Step #3

Step #4

Step #5

Step #6

Numbered List of necessary tasks to complete step (1.1,1.2,etc.)

* key deliverable for each step

* key deliverable
Top Flow Down Process Chart

The top Flow Down Process Chart format is suggested because it models the top levels of a process and limits the complexity of the diagram. A standard flow chart can be used, but be sure to “decompose” the chart into levels of detail (procedures and work instructions).
Linked Process Decomposition
### Roles & Responsibility

#### Primary Responsibility for facilitating task completion

#### Contributing Responsibility

<table>
<thead>
<tr>
<th>WHO?</th>
<th>WHAT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Customer</td>
<td>X Tasks</td>
</tr>
</tbody>
</table>

#### Indicate Key Staffs, Divisions, Platforms, Allied Divisions etc.

- Designate primary responsibility and customer for responsibility, contributing each task.
- Each row should have only one primary responsibility designated.
- Each row should have at least one customer indicated.

#### Process

- Step: # (Step from top flow down chart)

#### Tasks

(from top flow down chart)

<table>
<thead>
<tr>
<th>Primary Responsibility for facilitating task completion</th>
<th>X Customer Approval</th>
<th>* Key deliverable (for step)</th>
</tr>
</thead>
</table>
Process Roles & Responsibility Definitions

- **Primary Responsibility** for facilitating the process not content

- **Contributing Responsibility** for providing content and actual work activity not the process

- **Customer** - needs deliverable to perform subsequent work or needs to be informed that deliverable is complete

- **Approval** - responsible for approving the deliverable of that task
Rummler/Channel Process Chart

Customer
- Order Generated
  - Order Completed

Sales
- Credit
  - Credit Problem Addressed
    - Credit OK
      - Invoice Prepared
        - Shipped
          - Order ?
            - Yes: Invoice Sent
              - No: Order Stopped

Credit & Invoicing
- Order Received
  - Check Credit
    - OK ?
      - Yes: Credit OK
        - Invoice
          - Process Payment
            - Invoice
              - Product

Order Entered
- In Stock?
  - Yes: Order Entered

Production Control
- Order Entered
  - In Stock?
    - Yes: Production Scheduled
      - Diskettes Copied
        - Packages Assembled
          - Order Picked
            - Yes: Order Shipped
              - No: Order Stopped
Process Documentation Steps (Step 4)

• Define Control Points and Measurement

• Identify, on the process flow diagram, places where quality measurements can be taken (exit criteria)
  (Verify exit criteria for each deliverable)

• Ensure that adequate measurements are in place throughout the processes so that process objectives can be met
  (Review deliverables at each step for measurement)
  (Compare process enabler listing previously developed)

• Identify control points on the process flow chart (points within the process where business controls must be applied to maintain satisfactory control of the process)
  (Verify review forums for key macro tasks)
What are Control Points and When & Where Should They Be Used?

• Identify control points on the process flow chart (points within the process where business controls must be applied) to maintain satisfactory control of the process.

• Control points should be utilized whenever information (output) changes hands within the process eg: Transmitting data from one source to another for further processing.
  – Identify all potential points at which you could establish effectiveness measures.
  – Prioritize the ones that have a major impact on overall quality.
  – Establish what measurements will be taken (Measurement criteria to be established jointly by supplier & customer).

• Control points become the proactive formalized process feedback loop (they signal possible corrective action instead of the typical after the fact feedback).

• Value of Control Points
  – Keep process focused on necessary information required.
  – Allow for proactive corrective action minimizing lengthy re-dos.
  – Foster customer / supplier communication and trust.
Establishing Measurement

Why should you measure?
- Provide direct and immediate feedback on progress

Where should you measure?
- Points at which feedback will be direct, immediate, and relevant for activities critical to the overall process
- Control points significantly impact total process efficiency and effectiveness

When should you measure?
- As soon as the critical activity has been completed

What should you measure?
- Efficiency, effectiveness and adaptability of each critical activity
Establishing Measurement / Feedback Loops

1. Relate feedback loops to individuals to quickly understand their impact.
2. Make constructive feedback the consumers obligation.
3. Encourage positive and negative feedback.
4. Use continuous feedback for continuous improvements.
5. Avoid the old proverb "no news is good news."
6. Encourage customer complaints.
7. Give responsibility to take immediate action.