

# *Procase 101*

## *QA and Deployment*

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# Agenda

- **QA**
- Deployment
- Capacity Planning

# Why QA?

- Procuse depends on its track record for our long-term success
  - We build our track record by delivering quality solutions
- We want to help our team members succeed by validating their work
- We take pride in our “craftsmanship”

# Stages of QA

- Unit testing
  - Ensures the code works according to specs
- System testing
  - Volume testing, performance tuning
- User acceptance testing
  - Allows the users to test the overall application using production data

# Deliverables

- Quality Control and Assurance Plan
- Test Scenarios
- Bugs / Issues Log (PerfectTracker)
- Performance Tuning Metrics
- Code Review Checklist

# QC & QA Plan

- This is the “design” document for QA
- Used for communicating with the users and the team what should be tested and the approach
  - Components include UI testing, backend testing, data conversion testing, ...

# Test Scenarios

- This is the “specifications” document for QA
- Contains inputs and expected outputs
- Used for both manual or automated testing
  - We use e-tester for Access Copyright
  - We use custom spreadsheets to define scenarios

# Bugs / Issues Log

- We use PerfectTracker for issues tracking

**Perfect Tracker : Back End Team Activity**

[Edit Report](#) [Save Report](#) [New Report](#) [Help](#)

ID	Status	Title	Priority	Assigned To	Command
<a href="#">2414</a>	open	eLog parsing - fixes/changes/enhancements	1-High	apraskurnin	<a href="#">Edit Product</a> <a href="#">Delete</a>
<a href="#">2837</a>	open	Publisher Load: Edit Work page-Work Total Pages not shown even if provided	1-High	apraskurnin	<a href="#">Edit Product</a> <a href="#">Delete</a>

Total: 2 records found and displayed. 06/27/2003 10:15PM

# Performance Tuning Metrics

- We must perform stress test for the following cases before we go live
  - Large data volume
  - Large transaction volume

# Code Review Checklist

- SQL
- Database coding
- Web coding
- ...

# Agenda

- QA
- **Deployment**
- Capacity Planning

# Deployment Overview

- Environment
  - Development, test, production
- Layer
  - Web, application server, database server
- Release type
  - Initial release (new code), patch release (bug fix), enhancements
- Impacted modules
  - Program modules, database structure, data content

# Deliverables

- Initial production release
  - Production / implementation plan
  - Capacity planning document (discussed later)
  - Backup and recovery plan
  - Production support plan
- Development / test releases
  - Release notes
- Post-production releases
  - Release notes

# Implementation Plan Components

- Timeline for production move
- Hardware and software configuration
  - Unix install, web server, Oracle configuration, ...
  - Database creation
- Application configuration
  - Web application install
  - DDL
  - Data content (reference data, data conversion)
- Roles and responsibilities

# Backup and Recovery Plan

- Required for all environments: development, QA, and production (most vigorous)
- Required for server, database, and application
- Database backup and recovery (for prod)
  - Minimum must be ARCHIVELOG
  - Other approaches: RAC, Data Guard, advanced replication, ...
- Server backup and recovery: UNIX / LAN
- Application backup and recovery

# Production Support Plan

- Must define Service Level Agreement (SLA)
  - Response time
  - Recovery level e.g. db might be down for 2 hours with potential data loss
  - In-scope and out-of-scope items

# Release Notes

- See sample

# Agenda

- QA
- Deployment
- **Capacity Planning**

# Capacity Planning

- Objectives
  - Ensure scalability
    - E.g. can the application handle twice of # of records?
  - Ensure availability
    - E.g. if a server crashes, can we be up right away?
  - Ensure cost effectiveness
    - Hardware costs, licensing fees
- When should this be done?
  - During RFP, tech architecture, and before deployment

# Planning Considerations

- Environments
  - Development, test, and production
- Components
  - # of servers (boxes)
    - For each server, # of CPUs, RAM, # of databases
  - Disk space
    - For database, interface files, backup and recovery
- Technology options
  - RAID, Volume Manager, Oracle RAC, Data Guard

# Deliverables

- Capacity planning document
  - Server schematics
  - Disk layout and sizing
  - Database sizing and storage definition
- Software licensing cost document

# Q & A

- How to improve the QA process?
- How to improve the release process?
- How to improve production support service levels?