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Change Control Management
The whole is more than the sum of its parts
Motivation to develop Quality Gate Management

- Each project has to be approved before development starts
- 100% transparency of changes
- Risk avoidance and risk reduction
- Each change is documented
- Changes are bundled in projects and releases, based on SAP’s best practices
Standard Application and Quality Management
One end-to-end integrated and consistent quality process

- 100% transparency of changes
- A central transport mechanism and change control system to manage changes across technology stacks and application components
- A central test plan for core business processes
- A central quality manager validating test execution and test completeness
- Integration of every development workbench into the central transport and change control system

Provides an integrated and consistent Quality Process for all operational units across all organizations
Quality Gate Management
Roles and Responsibilities

Development Lead
… creates and releases changes and transports for the developers.

IT Operator
… performs imports into the test and production systems.

Quality Manager
… performs quality checks at certain project milestones.

Quality Advisory Board
… supervises the risks of an implementation project.
Quality Management Process

**Build**
- **BOE 4.0**
  - Dev system
  - FIX
- **BW 7.0**
  - Dev system
  - FIX
- **HANA 1.0**
  - Dev system
  - FIX

**QG**

**Test**
- **BOE 4.0**
  - QAS system
- **BW 7.0**
  - QAS system
- **HANA 1.0**
  - QAS system

**QG**

**Deploy**
- **BOE 4.0**
  - PRD system
- **BW 7.0**
  - PRD system
- **HANA 1.0**
  - PRD system

Synchronization
Quality Management Process

Build

- BOE 4.0 Dev system
- BW 7.0 Dev system
- HANA 1.0 Dev system

Test

- BOE 4.0 QAS system
- BW 7.0 QAS system
- HANA 1.0 QAS system

Deploy

- BOE 4.0 PRD system
- BW 7.0 PRD system
- HANA 1.0 PRD system

Synchronization

QG

FIX
Integrated and consistent quality process
Details

**Scope**
- Q Gate II: Scope to Build
  - Requirements from business Departments
  - Functional and technical blueprint
  - Functional and technical feasibility

**Build**
- Q Gate III: Build to Test
  - Extend Solution
    - SAP Updates
    - Custom Dev.
    - Partner solutions
  - Unit Tests
  - Prepare Solution Operations
    - Solution Docu
    - Enablement of Standards for Solution Operations
  - Prepare Tests
    - Test Scope Identification
    - Test Requirements
    - Test System Setup
    - Test Planning

**Test**
- Q Gate IV: Test to Deploy
  - Functional Tests
  - Integration Tests
  - Data Consistency Checks
  - Performance Tests
  - User Acceptance Tests

**Deploy**
- Q Gate IV: Test to Deploy
  - Function and technical blueprint
  - Extend Solution
    - SAP Updates
    - Custom Dev.
    - Partner solutions
  - Unit Tests
  - Prepare Solution Operations
    - Solution Docu
    - Enablement of Standards for Solution Operations
  - Prepare Tests
    - Test Scope Identification
    - Test Requirements
    - Test System Setup
    - Test Planning

**Transports in Cycles**
- Handover to Production

**Collaboration and Project Controlling**
Thinking in different levels

to enable one consistent quality process

Organize Change Control

Organize Transports centrally

Organize Transports for one application

SAP Solution Manager

Process Best Practice
- Set up integrated and consistent quality process
- Manage projects and quality gates for solutions
- Reduce risks for maintenance, enhancements or releases

Central Transport Management
- Set up system landscapes and dependencies
- Manage synchronized transports
- Enable central logging and monitoring

Managed Systems

Transport Tools
- Set up transport system for one application
- Record, export and import changes
- Use same tool for different applications / technologies

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Quality Gate Process

SAP Solution Manager Project using Quality Gate Management
Work Center Change Management: Overview
Quality Gate Management to ensure via standardized gates the quality of a new solution or of major changes

- Project and Quality Gate Calendar
- Project Schedules
- Quality Gate Maintenance with SoD (Segregation of Duties)
Quality Gate Management supports Implementation and Maintenance projects

- Upgrade / Implementation Project
- Maintenance Project
Quality Gate
Central Change Control
of Transports in Solution Landscapes

SAP Solution Manager Change Control

SAP Solution Manager Project

SAP Enterprise Portal

CTS Project

Change 1

Transport Request 1

Transport Request 2

Change 2

Transport Request 3

Transport Request 4

Change 3

Transport Request 5

Transport Request 6

SAP ECC

CTS Project
Transport Management
to reach 100% transparency of changes

- Central transport mechanism and change control
- Manage changes across the technology framework and application
- Every development workbench is integrated
Efficient Transport Best Practice

Cyclic Testing

- Repository objects are locked as long as possible in DEV
- Number of transports in production is reduced
- Transports of copies are periodically imported into QAS but do not follow the transport routes into following systems
- Only the original transports can reach production

Cross-System Object Lock (CSOL)

- Identify changes on the same objects in different projects
- Minimize risk of downgrades through different go-live dates of changes from different projects

Workbench and Customizing Objects are locked
One source of truth to avoid and manage risks of application changes in a project

- Identify the relationships and dependencies between different changes and associating changes with business requirements.
- Replace any spreadsheets used to track the application of changes to individual SAP systems within a central location.
- Risk avoidance and Risk reduction
- Tracking location of changes and the changes for your project which are affected by these errors.
- The quality manager can react to critical situations appropriately, and assess the project risk.
## Risks for a Chosen Project

**SAP Solution Manager**

### Details for selected Projects: 1/203

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>Type</th>
<th>Change Control</th>
<th>Quality Manager</th>
<th>Quality Advisory Board</th>
<th>Current Phase</th>
<th>Next Q-Gate Start</th>
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</thead>
<tbody>
<tr>
<td>QGM_PS_TS1</td>
<td>ERP HCM Release 2010/2</td>
<td>Implementation</td>
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<td>SCHMIDTPLAT</td>
<td>QGM_G4B_01</td>
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### Project(s): QGM_PS_TS1

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### Open Transports for system MWS

<table>
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<tr>
<th>Transport Request</th>
<th>Change</th>
<th>Description</th>
<th>Owner</th>
<th>Request Type</th>
<th>Source System</th>
<th>Source Client</th>
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</tbody>
</table>

- **Risk overview via Risks tab**
Risks for a Chosen Project

- Risk visualized in the System Landscape Graphic
Project creation
Integration with Change Request Management

- Use Change Request Management in combination with Quality Gate Management
  - Define quality gates with QGM
  - Approve & control your changes with Change Request Management
Enhanced Change and Transport System to transport all kind of objects

- ABAP Workbench SE80
- Exchange Infrastructure Integration Builder
- Developer Studio and NWDI
- Enterprise Portal Content Administrator

... (open Interface for non-ABAP objects)

CHANGE AND TRANSPORT SYSTEM

Development System

Transport

Quality System

Transport

Production System
Change Control of Transports in Solution Landscapes
SAP Quality Gate Management

SAP Quality Gate Management provides for all operational units across the various organizations of a company an integrated and consistent quality process. The SAP Quality Gate Management therefore ensures the full control of all software change processes.

- SAP Solution Manager provides a fast entry point to get a project and status overview for the different projects
- Central administration interface for all types of transports and system landscapes
- Integrates the various development workbenches into a central transport and change control system
- Synchronizes the software distribution in the different software stacks
- Synchronized changes to business processes which run in ABAP and Non-ABAP
- Control the quality of software changes by quality gates
Further Information

SAP Public Web:
SAP Service Marketplace: http://service.sap.com/changecontrol

SAP Quality Gate Management:
Central Note: 1509091
Thank You!