

Software Quality and Testing

TURKCELL TECHNOLOGY
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TEST DEPLOYMENT & RELEASE MANAGEMENT

- Freeze & Release
- Test Environments
- ClearCase Labels
- Deployment to Test Environments
- Production Change Request



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FREEZE & RELEASE

- **FREEZE** : This is the process that the Projects which will be delivered to Production with the next *RELEASE* are separated from the other Projects and deployed to another test environment.
- **RELEASE** : The Production deployment of the various Projects that are *FREEZED* on a certain date as a whole.



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FREEZE & RELEASE

Rules for the Release dates

- It can not be one day before the Billing Process.
- It can not be on the day of the Billing Process.
- It can not be on the time interval that the Financial reporting is being done.
- The Release dates must be on Sundays.



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TEST ENVIRONMENTS

There are 3 kinds of Test Environments:

- ✓ **STABLE** :The first test environment that the coding is deployed with a test request ID and that the testing process just starts.
- ✓ **PRP** : The second test environment that the *FREEZED* coding is deployed.
- ✓ **BUGFIX** : This is the test environment that the Critical and High severity defects are being tested. This is close to the Production systems.



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CLEARCASE LABELS

Labels are associated with the Test and Production environments. It is decided with the help of the labels that which coding should be deployed to the environments.

There are 4 kinds of CC Labels:

- ✓ **TO_UCCSTEST**
- ✓ **TO_UCCSPROD**
- ✓ **Freeze_X.YY**
- ✓ **Build_X.YY**



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DEPLOYMENT TO TEST ENVIRONMENTS

Criteria for Deployment to PRP

- ✓ Test Request ID with a status «*Ready to PROD*».
- ✓ Test Set that is associated with the Test Request ID.
- ✓ No Critical/High Test Defect that is associated with the Test Request ID.
- ✓ All the Test Cases on the Test Set must be Run.
- ✓ Min %90 of Test Cases on the Test Set must be successfully Passed.
- ✓ **TO_UCCSPROD** labels on the coding.



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DEPLOYMENT TO TEST ENVIRONMENTS

PRP Deployment Request

PRP Deployment Requests are being created separately for Application and Database Codings.

Following issues should be taken into account:

- ✓ Environment : TEST-PRP or TEST-BUGFIX
- ✓ Affected System : Application Server or Database
- ✓ Production Date
- ✓ Test Request ID



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Operational Document

An operational document must contain:

- Project information
- Information about the deployment items (where the codes are located in the source control)
- Migration Plan
- Rollback Plan



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Pilot Run

- **The Production Pilot Run** is the final stage. Each part and assembly is inspected to assure that the design specifications have been met. Product performance and functionality are tested to assure that your product performs and meets the design specifications



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User Acceptance

- **User Acceptance Testing (UAT)** is a process to obtain confirmation that a system meets mutually agreed-upon requirements.



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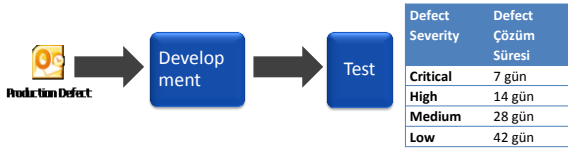
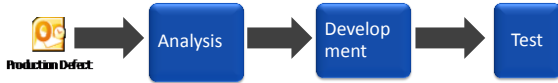
Babysitting Period

- **Babysitting** is an observation period for a specific timeline to ensure the system works correctly.



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Production Defect



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Production Deployment Request Tool

Getting help from a specialist tool is the best way to manage deployment requests properly.

The tool must consist of the following:

- Information about the project team
- Time and the contents of the deployment process
- Ability to add and update the documents
- Ability to handle defect tracing



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