Test Strategy

Of Project “Arctic Lands”

# Scope

The scope of this document is the documentation of the projects test structure.

It includes a detailed description of all test levels and defines the responsibilities and used test methods within all development and test cycles.

# Test Levels

### Unit Test

Scope of the unit test phase is to ensure class and modular functionality.

Responsible Department: Development  
Technology: Framework  
Execution Type: Automated

Unit testing is done by the development department using the framework “PHPUnit” to define and maintain all tests related to method and parameter functionality of internal class functionality

### Integration Test

Scope of the integration test phase is to ensure integral but separated feature functionality.

Responsible Department: Development and Testing  
Technology: Framework, White Box Test Methods and Black Box Test Methods  
Execution Type: Automated and Manual

Integration test of development department includes the following test methods:  
Code Review  
“PHP Unit” access point verification  
“PHPUnit” data validation  
Classification Tree Method

Integration Test of testing department includes the following test methods:  
Decision Table  
Decision Tree  
State Machine  
State Tree  
Equivalence Partitioning  
Boundary Value Analysis

### System Test

Scope of the system test is to ensure feature combination functionality as well as common user behavior.  
Field Test (such as Alpha or Beta test phases) are also an integral part of this test phase.

Responsible Department: Testing  
Technology: Black Box Test Methods  
Execution Type: Manual

System test of the testing department includes the following test methods:  
Equivalence Partitioning  
Boundary Value Analysis  
Statistical User Test  
Decision Table  
Decision Tree  
State Machine  
State Tree

# Roles and Responsibilities

### Project Manager

The **project manager** is responsible for reviewing all design and requirement documents used as the basis for test specification considering customer and / or market requisitions.  
He or she ensures the validity of those requirement specifications as well as the consent of all involved stakeholder.

### Test Manager

The **test manager** is responsible for reviewing all design and requirement documents used as the basis for test specification considering testability (testability review).  
He or she ensures the testability of required parts of those requirement specifications.

The **test manager** is in charge of planning and transfer all required test tasks to the testers as well as reporting the test status and milestone achievement to the **project manager**.

### Test Designer

The **test designer** is responsible for reviewing all assigned requirement documents used as the basis for test specification considering applicable test methods.  
He or she ensures the validity the specified test items with the original requirement documents.

The **test designer** is in charge of specifying test cases for his or her assigned requirements within the time plan of the **test manager**.  
In case of time delays he or she is instructed to report those delays to the **test manager** as soon as possible.

### Tester

The **tester** is responsible for executing assigned test cases.

In case of time delays he or she is instructed to report those delays to the **test manager** as soon as possible.