Test Plan Identifier: ATP-2.6 Project: Open Weather Map

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**Test Plan**

**References**: API documentation - <https://openweathermap.org/api>

**Introduction**: This is the Acceptance Test plan for API v2.5. A primary objective of testing API is to assure, that the system meets the full requirements and fit metrics for each quality requirement and satisfies the use case scenarios and maintain the quality of the product.

API testing will have three levels: Unit, Integration and Acceptance. The acceptance testing is expected to take one (1) month from the date of API delivery to testing servers.

**Test Items**: All available for free API methods, customer documentation.

**Software Risk Issues**: Code for ‘Current weather data’ and ‘5 day / 3 hour forecast’ will be refactored to improve API stability. That is why time for regression testing can be increased. Integration with new external service “Vane” can take more than expected time due to lack of detailed documentation.

**Features to Be Tested**:

- Current weather data

- 5 day / 3 hour forecast

- Weather map layer (except satellite base map)

- Customer API documentation.

**Features Not to Be Tested**: All available for paid accounts methods, weather stations, beta.

**Approach**: The testing for API v2.5 will consist of Unit, Integration and Acceptance test levels. It is hoped that there will be at least one full time independent test person for integration testing.

*UNIT* Testing will be done by the developer and will be approved by the development team leader. All unit test information will also be provided to the test person.

*INTEGRATION* Testing will be performed by the test person and development team leader with assistance from the individual developers as required. Postman tool will be used for API testing.

*ACCEPTANCE* Testing will be performed by the actual end users with the assistance of the test manager and test person. Programs will enter into Acceptance test after all critical and major defects have been corrected. A program may have one major defect as long as it does not impede testing of the program. Prior to final completion of acceptance testing all open critical and major defects MUST be corrected and verified by the Customer test representative.

**Item Pass/Fail Criteria**:

* All test cases completed.
* 85% of cases completed with a percentage containing some number of minor defects.
* Code coverage tool indicates all code covered.

**Suspension Criteria and Resumption Requirements**: Testing will be if count of critical bugs are more than 10 after the 1rd iteration after smoke testing. Testing will be suspended on the affected software module when bugs are discovered after the 2rd iteration after smoke testing.

**Test Deliverables**: acceptance test plan, integration test plan, unit test plans/turnover documentation, screen prototypes, defect/Incident reports and summaries, test logs.

**Remaining Test Tasks, Environmental, Staffing and Training Needs**: do not need.

**Responsibilities**: according to test plan approach.

**Schedule**: The testing should be completed before June 1.

**Planing Risks and Contingencies**: Unit test time within the development process.

**Approvals**: Project Manager - Tom Brown, Development Team Manager - Robert Smith.