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C5.130: Reliability and useability testing summary for Platform version 2

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Dissemination Level ("X" in the relevant box)		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
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Introduction

This document gives a brief summary of the initial testing of the main EDIT Cyber-platform components. We provide a brief outline of test planning undertaken, testing software and testing methods adopted and an overview of the test results to date. Although this document is required as a project milestone readers should bear in mind that the testing is an on-going process and will not be complete until the platform development cycle as a whole is complete.

Establishment of the Test Plan

At the start of the testing process a 'Test Plan Discussion Document' was developed detailing the initial plans for testing of the Cyber-platform. As early as possible in the test design process this document was circulated to the developers and other members of the EDIT community so as to obtain early and general agreement on the methods, focus and scope of the structured testing to be undertaken. The scope of the tests was agreed to include testing for module compatibility, regression stability, functional completeness, usability / consistency and security.

Although it was generally agreed that a programme of structured testing should ultimately be embarked upon it was also agreed that rapid unstructured testing of the interfaces should be carried out first. This was decided for two reasons 1) The functional requirements/objectives were not yet completely documented by the developers, 2) The imminent release of the new version necessitated a more rapid if less rigorous approach to testing in the first instance. Following the unstructured testing it was agreed that an 'Initial Impressions Document' would be produced (see the appendix to this component published on the website). It should also be reported that although it was intended to include all platform components in the initial testing for technical reasons it was only possible to undertake limited tests on the MapViewer and ViTaL components and the majority of effort to date has focused on the Taxonomic Editor. The review of application development compared against user requirements and drivers identified in D5.09 Draft Model and Bottleneck report included as an early component in the testing plan will now, therefore, be undertaken during the structured testing phase once the functional requirements of each complement have been documented by the developers.

Unstructured Testing of the Taxonomic Editor (version 2.1.0.v20090610_1425)

This work is now complete and a suite of unstructured tests have been carried out on the Taxonomic Editor (version received on 10th June 2009) in order to identify major bugs, usability impediments and obvious functional gaps. All tests were recorded step-by-step in a separate document (Unstructured Testing and Initial Impressions Document) with bugs and issues of usability recorded separately for each test step. Additionally, for each issue encountered, a ticket has been created using the Wiki TRAC system. All tickets created have been summarised tabulated and fully cross-referenced within the Initial Impressions Document (appendix to this report). In all 36 tickets have been produced, the majority of which are feature requests to improve usability, 9 tickets are currently classified as bugs. Two bugs were encountered but could not be reproduced, therefore tickets were not created. In those cases full details, including error logs and screen prints, were supplied to the developers.

Structured Testing Methods

For the structured testing several test management frameworks were investigated. Eventually the Testlink framework was selected to document, implement and record the results of the test cases. The benefit of using TestLink is that it creates easily understood test plan reports that can be

circulated to relevant colleagues for comment, so that the full suite of test cases can be agreed between the testers and the developers prior to testing which will enhance the effectiveness and efficiency of the testing.

TestLink will be used to log the results each test case, allowing statistics and metrics (number of failures, outstanding failures etc) to be produced for each application as a whole, or for specific test cases, test suites or test plans. Progress of the testing regime can be easily monitored and reported, so that developers have a good idea as what tests are complete and which aspects of the applications have yet to be tested. This will be used as an adjunct to the TRAC bug reporting site.

MacroExpress has been selected for the automation of tests of the basic functions within each interface. The MacroExpress software will be used to run regression tests on new versions of the applications before they are released. This will be more time efficient and rigorous than re-running the tests manually. Although work began on recording an initial set of test macros work on this was halted on the advice of the developers who informed us that there would be changes to design of the interface which would make these macros redundant. This work will be resumed when the interfaces have reached an appropriate level of stability.

Production of Taxonomic Editor Manual

It has been agreed that the testers will produce a manual for the Taxonomic Editor based on a newly-produced list of functionality published on the Wiki. The manual will also be produced on the Wiki so that others can access and edit the document where necessary.

Initially the agreement was to produce a manual by September. However, it was necessary to wait for the production of a list of functionality and for a more up-to-date and stable version of the application to be available. These have now been received and work on creating the manual has begun.

Future Workplan

Work will now begin on manual creation and more structured testing of the Taxonomic Editor, and testing of the Mapviewer. Work will continue to develop the appropriate management of the development test release cycle so as to promote the stability of the released products and ensure timely incorporation of the test feedback into the development process. As the components mature other test partners will be brought into the process and RBGE will assume a more managerial role in the testing process planning, coordinating and collating the results of more generalised testing activities.

Conclusions

The work on testing the Cyber-platform components is proceeding well and a good relationship between the testers and the developers has been established and will continue to be developed. Much useful and timely feedback has already been provided to the Taxonomic Editor development team which should lead to a greatly enhanced Version 2 of the editor being released in September.