# Assessment Report on the first Release of FAIMS Repository

FAIMS Deliverable #12B

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This report summarises the state of the FAIMS Repository v0.1 released on 15 March 2013, after 12 weeks of development.

## Background:

The FAIMS Repository is a customisation of the Australian Historical Archaeological Depository (AHAD), which is in turn a customisation of the Digital Archaeological Record (tDAR), a large existing open source code base developed by the Arizona State University in the United States under the auspices of Digital Antiquity.

The FAIMS project is expanding AHAD to create a digital repository for documents, datasets, images and sensory data produced by archaeological research in Australia or collected by Australian archaeologists working abroad.

In January 2013, Digital Antiquity revealed a major new release of tDAR (version: In Situ) with a rebuilt search engine, bug report, ability to handle deposit fees, and a whole new look and feel.

## Definitions

AAF -- Australian Access Federation

AHAD -- Australian Historical Archaeological Depository

NeCTAR Cloud --computational infrastructure provided by the partnership of NeCTAR, Research Data Storage Initiative (RDSI) and Australian National Data Service (ANDS).

## The Aims of the First Release

The five goals of the first release of the FAIMS Repository were:

* To run on the NeCTAR cloud.
* To support the AAF.
* To have a new look and feel.
* To review the management of sensitive data.
* To support mobile device data import.

The repository team has made the decision to prioritise the fixing of functional defects in the implementation of tDAR’s most recent (and extensive) release over the addition of new features. This has resulted in a further important feature: support for the reporting of defects directly by users whilst using the software.

* To handle support and bug reporting

## 0.1 Release - New Features

The FAIMS Repository has been tested and reviewed with the help of external testers and FAIMS Steering Committee delegate on 13-14 March 2013. Four of the development goals have been successfully implemented :

* Running on the NeCTAR cloud

The repository is now running on the NeCTAR cloud. It is running on a test server. The existing application that is being tailored to the NeCTAR environment requires the presence of block storage for persistent data. NeCTAR does not currently support this form of storage, and we cannot deploy the code on a production server until block storage is available. One of the new NeCTAR nodes coming on line may offer this feature. It was decided to defer any decision on how to deal with this vexatious issue until the start of April, to see how the landscape changes.

Chef scripts were created to automate the provisioning of servers and the deployment of software, but these can only be properly completed once the block storage issue is resolved.

* New look and feel

The FAIMS Repository, currently located at<http://115.146.92.150:8080/> , has been given new look and feel derived from the FAIMS project design in order to differentiate it from its counterparts and predecessors, the AHAD and tDAR.

* Handle sensitive data

This is actually not a new feature as the FAIMS Repository inherited a system of sensitive data management from tDAR. The requirements in the Software Development Plan associated with handling sensitive data were present to ensure that the needs of FAIMS are adequately met by the tDAR source code, and that alterations we make (including optional map obfuscation) will not diminish the protection of sensitive data.

* Bug reporting

The FAIMS Repository has a widget placed on it that testers can use to report defects as they are using the software. The widget was a new feature in tDAR’s latest release. Defects reported using this system automatically appear in the tDAR defect tracking system, with appropriate tags to ensure these are directed to the FAIMS developer.

**Issues:**

Multiple issues have emerged during the development of the FAIMS Repository that have significantly delayed the delivery of planned features. Some of these issues were external dependencies, others were newly emerging technical difficulties. The dependencies included the absence of block storage, which is necessary for a FAIMS Repository production server and which NeCTAR/RDSI currently does not provide. The unavailability of block storage hindered the development of the Cloud implementation and required a range of mitigation measures (and discussions). Creating adequate workarounds has consumed much of the development time and while the Cloud implementation was in the end delivered, the extra elaboration partially contributed to the delay of Mobile Data Import milestone.

Two components of the original plan for the first release have not been implemented at the time of the User Acceptance Testing due to technical difficulties. These two functionalities include:

* AAF Support

After spending time investigating AAF support, the developers and FAIMS leadership decided that the AAF currently does not support a user model that is required by both the FAIMS project and the existing tDAR source base. It may well be that the new AAF home service will provide this support, so, although work has been done on this activity, it was decided to defer any further work on this until the AAF finished their new home service. A decision on the path forward will be made in April and this feature has , therefore, been postponed until the second release.

* Support for mobile device data import

In terms of supporting mobile data, it was originally envisaged that the existing ingest mechanisms of tDAR would be used. However, it has become apparent in the course of elaboration and development that this is no longer a satisfactory approach, and significant work will have to be done to bring in the mobile data. This work has been started in the week of 4-8 March. Given this delay, this story will be relegated into second release (1 June 2013) and tested in the associated UAT.

## Discussion:

The development undertaken on the v0.1 of FAIMS Repository was conducted in compliance with the schedule determined during the project Elaboration Phase. All tested stories passed User Acceptance Testing with user acclaim. Three stories were removed from the UAT Criteria, the AAF for technical reasons, the Sensitive Data management, because the functionality had been satisfied by the source code, and Mobile Data Import, because of increased technical difficulty and delay. The AAF requirement is on hold and will be revisited during the second release elaboration. The Mobile Data Import requirement was rescheduled for the second release (UAT#3). Fixing bugs in the source code and managing newly emerged issues comprised majority of the time on task during the development period.

Fortunately, FAIMS has benefited from tDAR’s latest release, and a number of smaller tasks scheduled for our production repository will require little or no work.

**Summary**

The first release of the FAIMS Repository (v0.1) offers the following functionality: It runs on the NeCTAR Cloud, it has a FAIMS-specific look and feel, it natively handles Sensitive Data, and supports bug reporting.

This new functionality of the first release of FAIMS Repository was subject to external testing and has been validated to the satisfaction of the Steering Committee.

The development of the Repository has fallen behind schedule and had to be revised due to the technical challenges involved with customising existing software to NeCTAR Cloud. We are managing the issues and rolling the outstanding features into the next release.