

Graph-based data structure

Arches is based on a graph-based data structure that allows a specific piece of information (called a node) to be linked to another piece of information. This is a two-level hierarchal system that can be scaled up indefinitely, allowing for both a simple as well as complex data system. A benefit of this system for the archaeological sector is that it allows for the capturing of the complete context of a site but also allows for this information to be subdivided into smaller displays or reports. Even the most complex site can be represented to the user in an easy-toread and easy-to-use report.



Reference Data Manager

The function of the Reference Data Manager (RDM) is to provide controlled vocabularies. A controlled vocabulary is the input of a specific term or phrase, with a selection of additional information and languages that can also be added as part of the term/phrase definition, much like a dictionary. These vocabularies are built into the selected nodes which means that these only capture the pre-developed will nodes terms/phrases. This allows for the standardisation of terms or concepts throughout the entire database.

> This feature of Arches 7 is still in development with the end goal being to allow full data upload directly from the web interface. Currently, all data (besides the most basic uploads) need to be done via the command line interface, which requires specific training. However, once the bulk data manager development is finished, any person will be able to do complex bulk uploading directly from the interface.

ARCADIA

Arches Heritage Database

Arches is an open source fully customisable database developed by the Getty Conservation Institute. There are two different versions of this database designed to meet the requirements of the heritage sector or the scientific community. As a free open-source database all aspects of the database can be changed to meet specific requirements with an active and growing online community of users and developers located globally. Due to this extensive customizability of the database, it is being used by many projects with different aims, all contributing to the documentation, cataloguing and protection of world heritage at a local scale.

JOL SIDL

Arches 7.5.3

A web and mobile platform for managing your most important resource information



Bulk Data Manager

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MAEASaM Mapping Africa's Endangered Archaeological Sites MAEASaM ID RS-ZWE-00000792 Ground truthed Land use land cover Scrub Enclosure Evidence Relatsionship to other site terpretation certaint

MAEASaM ID 🗸 Site description 🗸

All data uploaded to Arches (also known as instances) are displayed in a report. The report follows the two-tier hierarchal data structure of Arches, which are organised within the web interfaces as cards. The card can be regarded as the heading (thus indicating what information is being displayed) and the second card is the actual information (represented as sub-headings to the left and the information to the right). A report can have as many cards as required. A key point in this regard is the relationship graph data structure of Arches. This means that only limited information, such as a book name can be displayed on the card. If the user needs more information on that book, they can click on the name and the report for the book is displayed with all its related detailed information. This allows for the full complex context to be captured without creating a large and bulky entry report.

A curatorial database

At its core, Arches is a curatorial database that allows for the capturing of detailed and complex information related to objects, places and sites. The data structure of Arches allows for the inclusion of different data types, from images and videos to Geographic Information Systems (GIS). This GIS functionality is a key strength of Arches as it allows for the displaying of geographic information (points, polygons and lines) in association with the images and other data saved to the record. When all these features are combined, this allows for the complete capturing of all data related to any object, monument or archaeological site.

Information as of August 2024.

An Arches report