



Arches for HERs for Local Administrators

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Introduction

Arches for HERs is a complex system which, whilst designed to be intuitive for users, requires certain technical skills and it is assumed that the System Administrator, usually a local IT department/team or service provider, will have these skills in order to install Arches for HERs, maintain it and to carry out ongoing enhancements when required by the HER.

For further information, use this URL to access the Arches Project website's 'Implementation Considerations' page.

<https://www.archesproject.org/implementation-considerations/>

Local Administrators, HER Managers and Officers, are not expected to have these skills, but are still able to access a range of features that are not available to general or public users, allowing customisation of their instance of Arches of HERs. This might be its look, or access for users to specific areas of the application, or not. Permissions for users can be based on whether their account is active, their status, and which User Group(s) they have been assigned. As Local Administrator Arches enables you to decide to modify a User's account and which group or groups users belong to.

Note: Not all of the features and functions of Arches for HERs are discussed here, only those which are expected to be relevant to HERs implementing Arches to replace current systems.

User Groups

What level of access users have to Arches is based on which Users Group, or Groups, they have been assigned. There are currently nine Users Groups and a user can be assigned to as many as needed. A full list and description of their permissions can be found in the Arches documentation:

<https://arches.readthedocs.io/en/5.1/managing-permissions/?highlight=Crowdsource#managing-users-and-groups-in-django-admin>

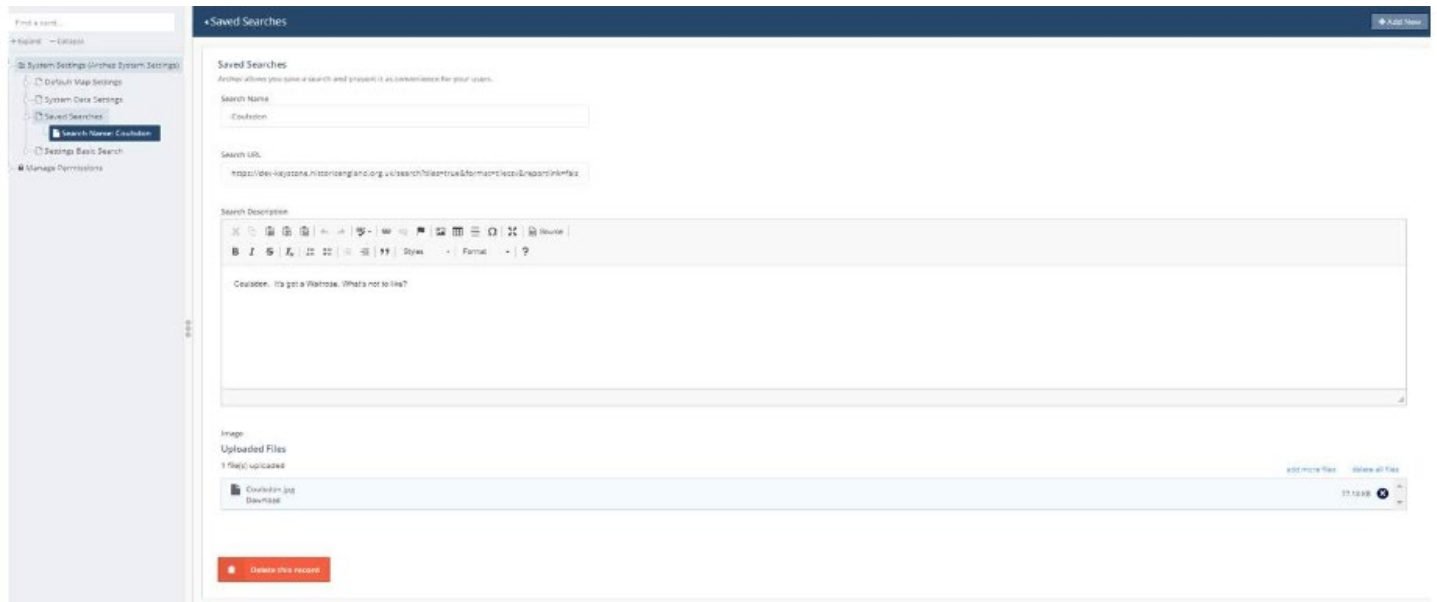
User Type	Graph Editor	Resource Editor	RDM Admin	Application Admin	System Admin	Mobile Project Admin	Crowdsource Editor	Guest	Resource Reviewer
System Administrator									
Local Administrator (HER Manager/Officer)									
HER Officer/Assistant									
HER Officer/Assistant (Probationary)									
Volunteer									
Contractor (HER Projects)									
General User (Public/Academics/Consultants)									

*Table of possible User types and the Groups they might belong to (***)Needs Updating(***)*

Saved Searches

As part of the Search experience, Local Administrators can create saved searches which might be of interest to users. This might be on a particular theme, or popular search category.

1. Create the search using the criteria you require on the Search page.
2. Take a copy of the URL
3. Under Manage System Settings, System Settings and create a new search in the 'Saved Searches' branch and save it:

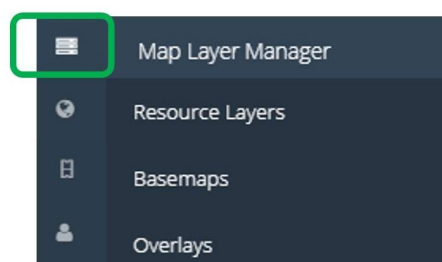


The saved search is now accessible from the Search page.

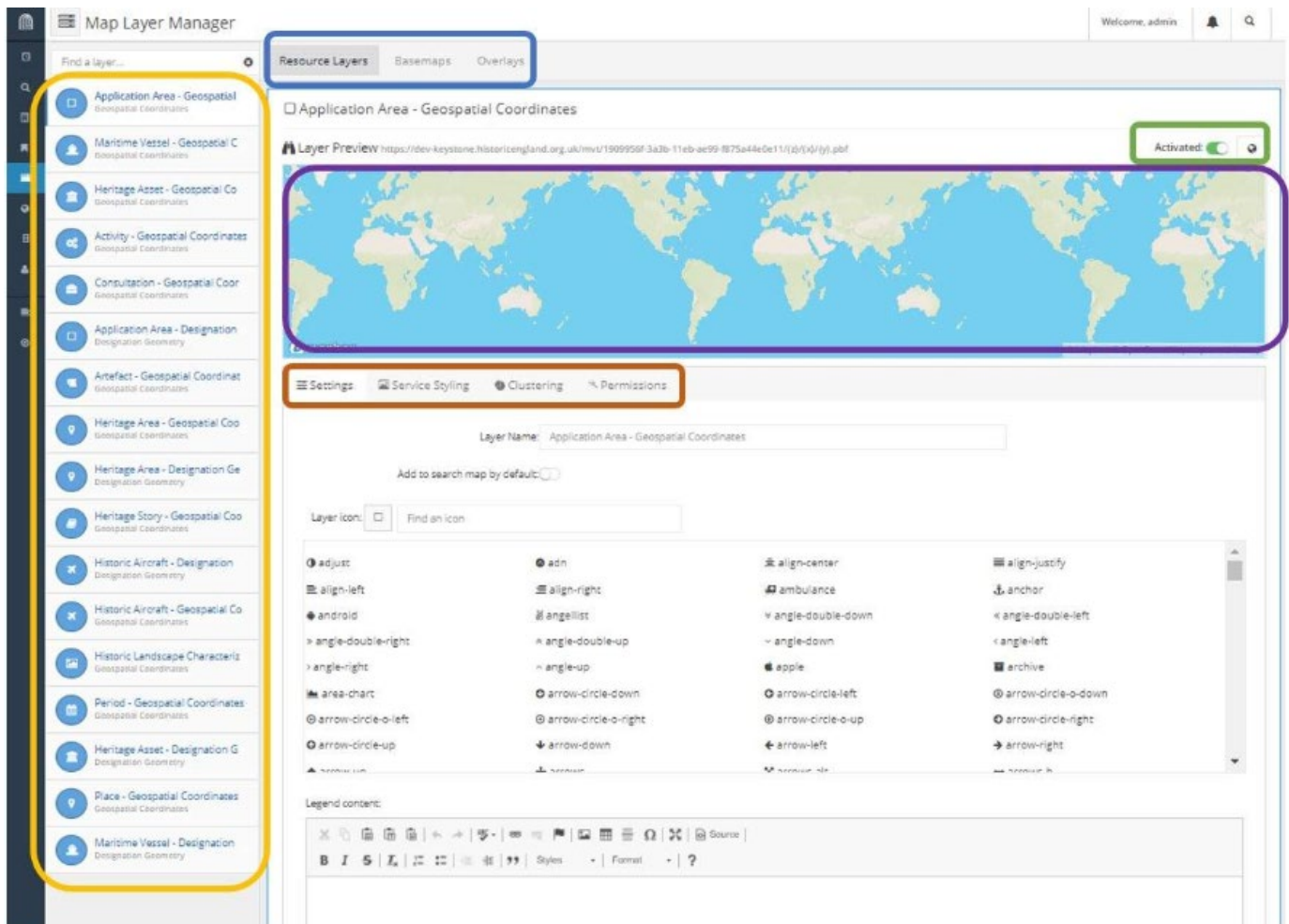
Note: If uploading an image make sure that the file does not exceed 200MB otherwise the image may not display on the Search page.

Map Layers

The Map Layer Manager allows you to customise the way users can view Arches map layers through Mapbox Studio. This can be how users see layers, when they see them, or if they see them at all. Layers can be Basemaps, historic or modern maps, or data that can be viewed with base mapping, Overlays, and spatial representation of Resource Models, Resource Layers. To access the layers select Map Layer Manager on the blue menu bar on the left-hand side of the screen and then the type of layers you are interested in:



Alternatively, once in the Map Layer Manager, click on the appropriate tabs to select an manipulate layers:



Map Layer Types: These are the three layer types, Resource Layers, Basemaps, and Overlays. Select one to view and modify its layers.

Preview Map: Previews any changes made to layers

Layers: These are the layers associated with the Map Layer type selected. Click on a layer to modify it.

Activated: Sets whether a selected layer is visible to users, and in use or not

Customising Tabs: This is where you can customise the appearance and visibility of each Layer. For Resource Layers this is:

Settings, Service Styling, Clustering, and Permissions (indicating which Users have permissions with this Layer).

! Note: Due to the slightly different nature of Basemaps and Overlays you can only change Settings and Service Styling.

Under the Settings tab you can change the name label, the icon used to signify the layer, and add as a default layer so on when a user opens the Search page.

! Note: When accessing the mapping on the Search page Resource Layers can take a moment or two to redraw correctly. The more Resource Layers that you have open, so visible straightaway to Users, the longer the redrawing will take. It is important to think carefully about what and how many Resource Layers you have open for Users to minimise this delay.



Map Layers Redrawing



Map Layers Redrawn

Under the Service Styling tab you can change the appearance of the special representation of the Resource, whether it is a line, point or polygon. The colour is based on the RGBA scheme (Red, Green, Blue, Alpha [opaqueness: 0 = fully transparent, 1 = fully opaque]). There are a number of websites you can use to select colours and their RGBA, for example:

https://www.w3schools.com/colors/colors_rgb.asp, or https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Colors/Color_picker_tool.

! Note: Currently Resource Layers can only be spatially differentiated by shape and colour, polygons by fill and outline colour. There are only about ten colours, or shades of colour, which can reasonably be used which so care should be taken to ensure that Layers are sufficiently distinct for Users to identify them correctly. This can be checked using the Preview Map.

Layer Preview <https://dev.keystone.historicengland.org.uk/mvt/ca063179-28cf-11eb-be6d-fb75a44e0e11/?x={x}&y={y}.pbf> Activated: ☒

Settings Service Styling Clustering Permissions Advanced: ☐

Point Style	Line Style	Polygon Style
Color: <input type="text" value="rgba(119,169,66,0.8)"/>	Color: <input type="text" value="rgba(119,169,66,0.8)"/>	Fill Color: <input type="text" value="rgba(119,169,66,0.8)"/>
Halo color: <input type="text" value="rgba(200,200,200,0.5)"/>	Halo color: <input type="text" value="rgba(200,200,200,0.5)"/>	Outline color: <input type="text" value="rgba(119,169,66,1)"/>
Radius: <input type="text" value="4"/>	Weight: <input type="text" value="2"/>	Outline weight: <input type="text" value="2"/>
Halo radius: <input type="text" value="4"/>	Halo weight: <input type="text" value="4"/>	

Clustering can be used to better display Resources when zoomed out, setting the zoom level at which clustering stops, the number of Resources needed to create a cluster, and the distance within which Resources are clustered.

! Note: Clustering can seriously impact the speed at which Resources are redrawn and displayed. As a result, it is strongly recommended that this is only used by the System Administrator, or under their guidance.

Base Maps and Overlays

Arches for HERs comes with a small set of default basemaps, but others can be added. Local Administrators do not have access rights to add new base mapping and this is something that should be undertaken by the System Administrator (See the Arches Installation Guide for more information).

! Note: It is advised that externally sourced map layers are added as Overlays.

In the Search window Resource Layers are stored along with Overlays. Users can reorder them, and change their transparency.

Resource Layers

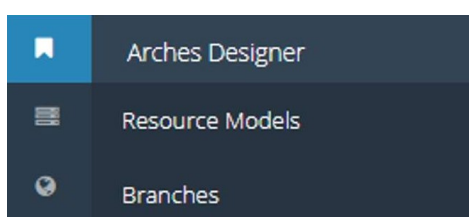
To view the available Resource map layers select Map Layer Manager>Resource Layers through the blue menu bar on the left-hand side of the screen.

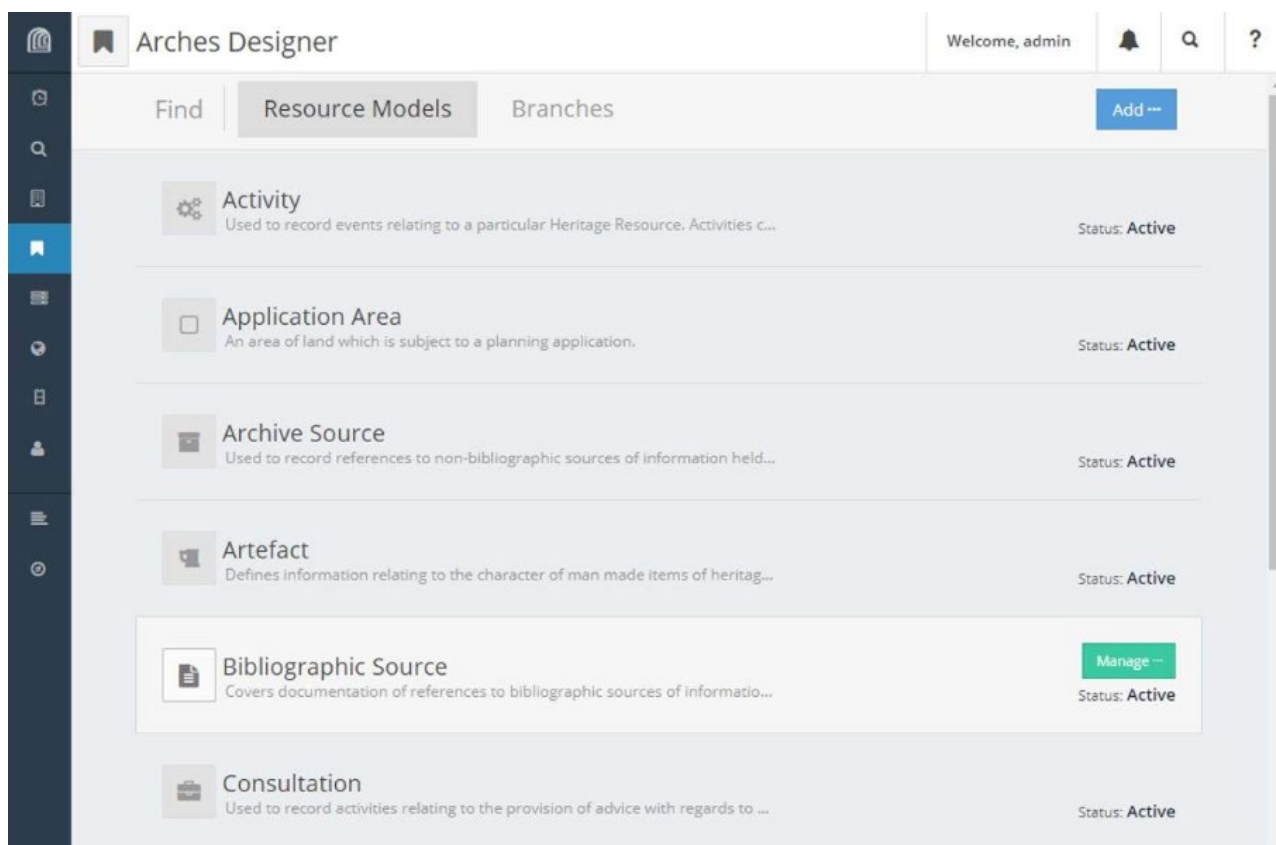
Arches Designer

The Resource Models and Branches in Arches for HERs have been created using the International Committee for Documentation's (CIDOC) Conceptual Reference Model, or CRM for short. CRM is an internationally adopted standard (ISO 21127:2006) developed to represent all possible relationships and concepts which can be understood independent of any software, making it easier to migrate data to newer, more advanced systems in the future, and, more generally, to improve data accessibility and long term preservation.

For more information about the CIDOC CRM and the Arches Resource Model Working Group (ARM) please refer to the CRM tutorial on the CIDOC website <http://www.cidoc-crm.org/cidoc-crm-tutorial>, and the ARM webpage <https://www.archesproject.org/arm-wg/>.

The Arches Designer is where Administrators can export, import, copy, and create Resource Models and Branches. No coding is needed to do this, and these data models can be exported to, or imported from, for other Arches users for deployment. To access the Arches Designer, click on the Designer tab on the blue menu bar on the left-hand side of the screen:





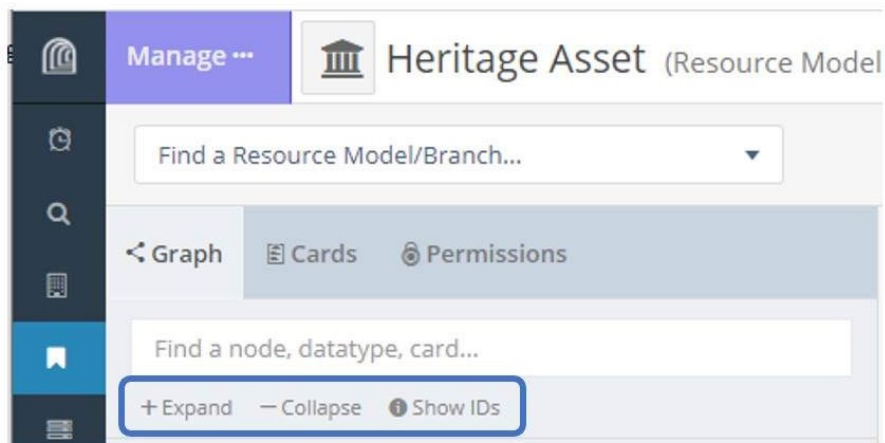
To create a new Resource Model or Branch, or import ones already created, click on the 'Add' button. To export, copy, delete, or edit, move the mouse point over the required Resource Model or Branch and then click on the green manage button. If editing a Resource Model you will be taken to the Graph Designer.

! Note: It is not necessary to, when creating Resource Models and Branches, to use the CIDOC CRM, but alternatively use another CRM or create your own. However, this would seriously compromise migrations to later versions of Arches for HERs, and homogeneity across Arches for HERs.

If new Resource Models and Branches are needed it is recommended that you first contact Historic England's Data Standards team to discuss this, and also keep a record of any changes you have made to Arches for HERs to aid future Administrators and aid data migration.

Graph Designer

The Graph Designer handles most of the design features for Resource Models and Branches, and has three tabs: Graph Tab for designing the structure of the Resource Model, Cards Tab for configuring the User interface, and Permissions Tab for assigning User permissions to each card. You can also switch between Resource Models and Branches by using the dropdown list shown.

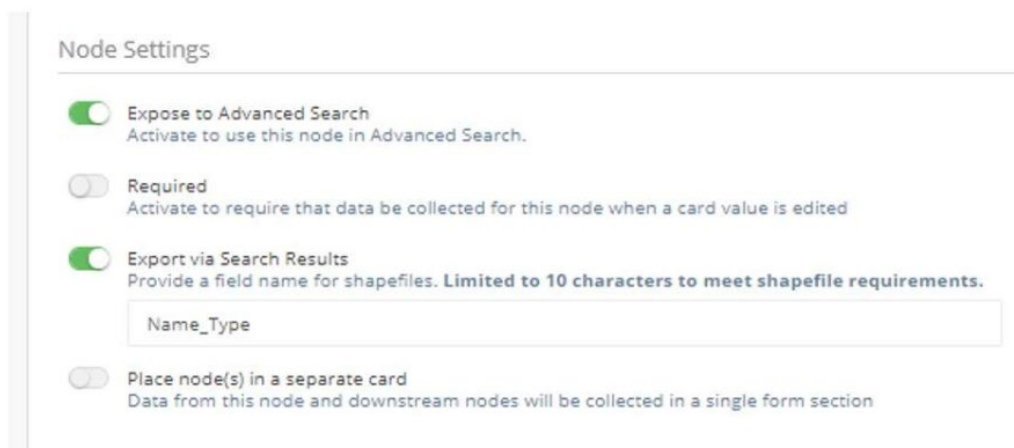


Graph Tab

This is where you can design and view a Resource Model and the Branches and Nodes it is made up of. By clicking on one of the buttons circled above you can view the Resource Model's graph tree (the collapsible file list on the left of the screen); 'Expand', displays the Resource Model Branches, Nodes, and associated Resources, 'Collapse', to see just the Branches and Associated Resources, and, 'Show ID' to see the internal identifying UID for each Branch and Node (This is important when designing new Resource Models and Branches). (See....what??)

Clicking on a Branch or Node will show its relationship to the Resource Model and its CRM class. If a Branch you can also set whether data id required, for example if the data is considered to be mandatory.

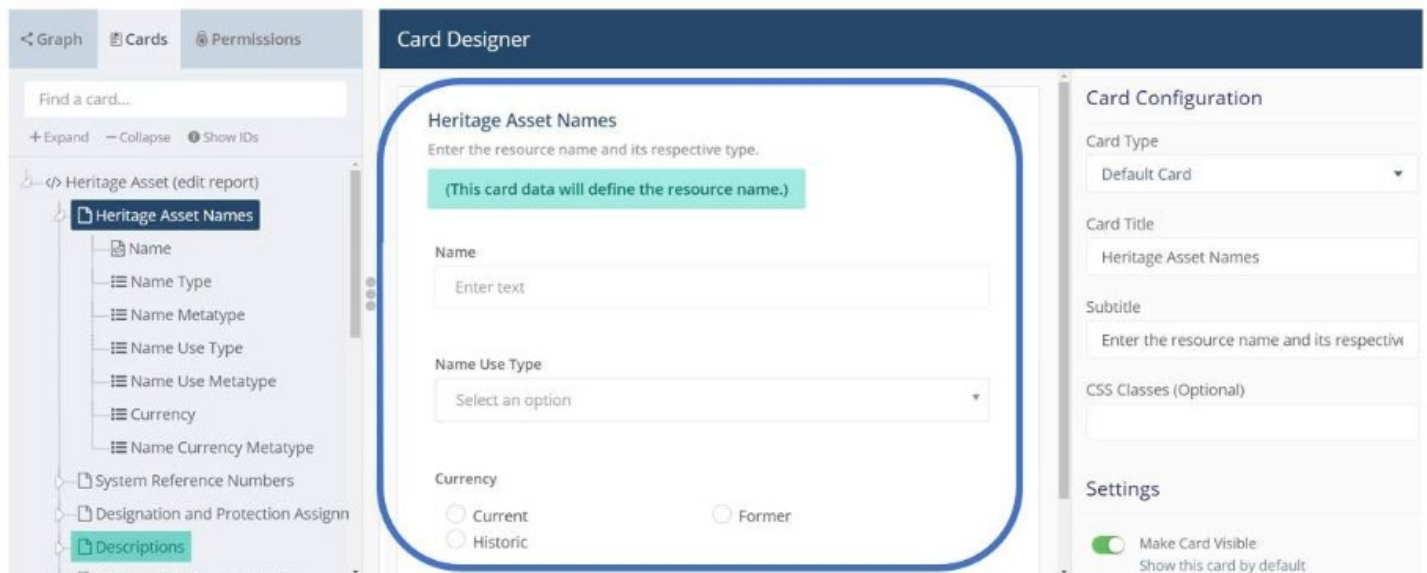
Additionally, with Nodes. it is possible to activate the Node so that it shows in Advanced Search (See Advance Search...), also whether it can be exported, and what name the data field has.



Card Tab

Cards, like Forms in MS Access, are used to configure how data is entered by Users. Cards can be nested for complex Branches and can also contain Widgets for managing input of a specific datatypes (See Arches Glossary <https://www.archesproject.org/glossary/>).

Clicking on a Branch or Node in the Card Tree in the Card Designer brings up the Card Manager or Widget Manager, on the right and highlighted below, a Card viewer showing how the Card will look to Users.



Heritage Asset Name card and its components

Through the Card Configuration or Widget Manager, changes can be made to the Card or Widget which will show on the Card viewer. It is also possible to reorder how Cards are viewed by Users. To do this click on a Branch or Node, and with the left mouse button held down, drag the selection to the location you want.

Card Configuration

Card Type: A drop-down list of card types showing the type selected. These are:

- Default Card: standard Arches for HERs card set-up
- Grouping Card: allows for grouping multiple cards together. One Card acts as the anchor for the group of Cards.
- Related Resources Map Card: user can navigate geographically to select a related resource instead of paging through the drop-down list of relatable resources
- File viewer
- Photo Gallery Card
- IIIF Card: viewer for International Image Interoperability Framework (IIIF) resources
- Map Card: for greater customization such as setting default zoom level, or starting map at a specified coordinate location.

(For more information about card types see <https://arches.readthedocs.io/en/5.0.0/designing-the-database/#card-type>).

Card Title: The name of the card.

Subtitle: This can be used to describe the Card and what is recorded here. In the example above, Heritage Asset Names, 'Enter the resource name and its respective type' is the Subtitle.

CSS Classes: This is optional but allows space-separated names that correspond to class names defined by a developer in package.css. (What???)

Settings

- Make Card Visible: card can be seen as default by Users
- Allow multiple values: Allows Users to add multiple values for the selected data Instance.

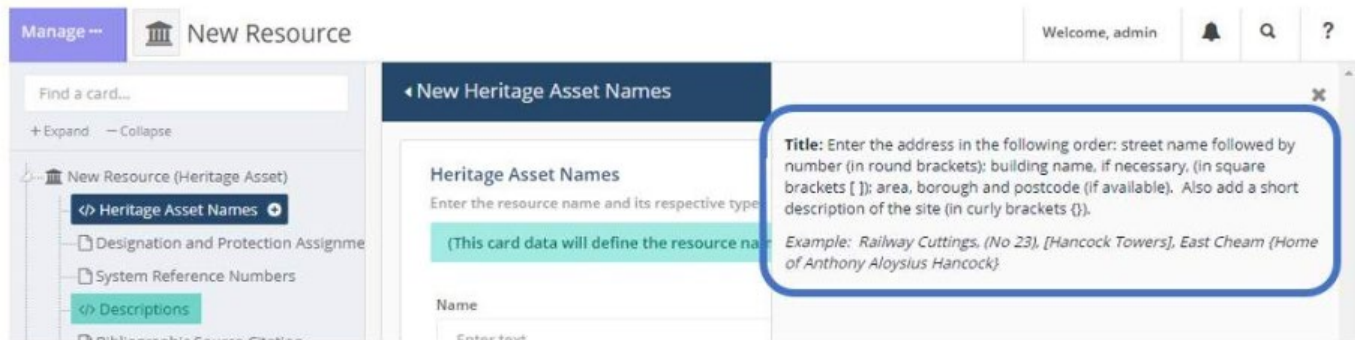
Enable Card-level help

Using this setting the Administrator can provide specific guidance for Users on the Card. Toggling 'Enable Card-level help' opens the Help title and contents fields.

The screenshot shows the 'Settings' interface. At the top, there are three toggle switches, all of which are turned on. The third toggle, 'Enable Card-level help', is highlighted with a blue box. Below the toggles, there is a 'Help Panel Title' section with a text input field containing 'Help title'. Below that is a 'Content' section with a rich text editor. The editor contains the following text: 'Title: Enter the address in the following order: street name followed by number (in round brackets); building name, if necessary, (in square brackets []); area, borough and postcode (if available). Also add a short description of the site (in curly brackets {}).' and an example: 'Example: Railway Cuttings, (No 23), [Hancock Towers], East Cheam {Home of Anthony Aloysius Hancock}'.

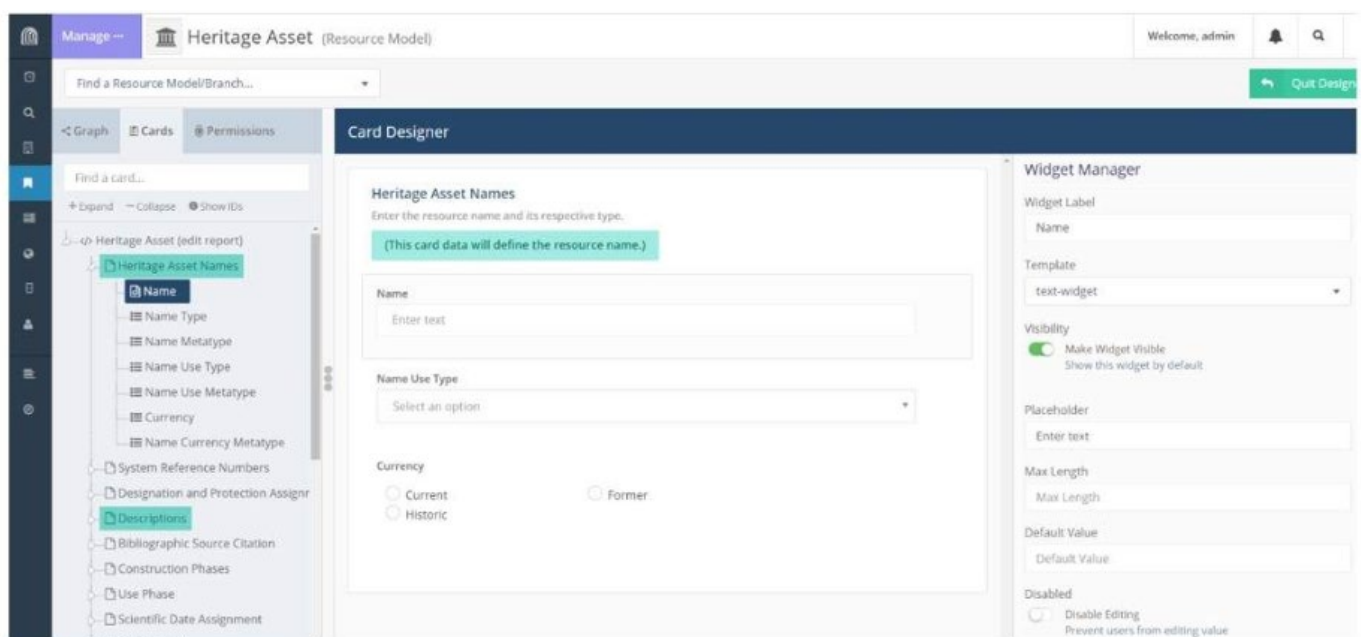
Information to help Users can be added to the Content field, as can a specific name for the help page in the Help Panel Title box. Click on the 'Save Card Edits' once finished, or 'Discard Card Edits' if no longer needed. This guidance is now accessible to Users on the relevant Card by clicking on the Help button, which opens the guidance page as shown below.

The screenshot shows the 'New Resource' interface. On the left, there is a sidebar with a search bar and a list of categories. The 'New Heritage Asset Names' category is selected. On the right, there is a form titled 'New Heritage Asset Names'. The form has a 'Name' field, a 'Name Use Type' dropdown, and a 'Currency' section with radio buttons for 'Current', 'Former', and 'Historic'. There is an 'Add' button at the bottom. A blue box highlights the 'Help' button in the top right corner of the form.



Widget Manager

This is where you can configure what users can see and do when they start creating Resources. Click on a Node to bring up the Widget Manager.



As with the Card Configuration, alterations to the Card can be seen in the Card Designer.

Widget Label: This is the name given to the data field being recorded. It may be different from the actual internal attribute name.

Template: This is the Widget type used. Currently this is either text or rich-text

Visibility: Widget can be seen as default by Users or not

Placeholder: Guidance for Users entering data. For example, 'Enter text', or 'Enter date as YYYY-MM-DD'

Max Length: Sets the maximum number of characters can enter into the data field

Default Value: A default value can be added if required if a particular value is used often.

Disabled: Can set whether the Widget is editable.

- a. Permissions

- B. Landing Page

- a. Text

- b. Images

Reference Data Manager

The Reference Data Manager (RDM) is a key component of Arches, enabling the creation and management of controlled vocabularies which Arches uses for dropdown lists and controlled fields within Resource Cards and Widgets. Arches for HERs comes preloaded with the relevant reference data collections created by the Forum on Information Standards in Heritage (FISH), Historic England, and the Museums Documentation Association (MDA), along with others developed for use with Arches for HERs.

To promote consistent data creation, update, and indexing workflows, Arches implements a Reference Data Manager (RDM) that can manage thesauri. The RDM allows users with the appropriate privileges to update thesaurus entries in a manner compliant with SKOS (<http://www.w3.org/2004/02/skos/>) and assign the concepts within a thesaurus with data entry forms.

The use of the RDM is restricted to the Reference Data Manager, the person responsible for maintaining the controlled vocabularies. It allows for the creation, update, amendment and deletion of concept schemes (controlled vocabularies). Training materials are available within the application's RDM via the Help command.

In addition the RDM enables you to export your schemes as SKOS-Compliant XML files as well as the import of external thesauri. For more information on SKOS see <http://www.w3.org/2004/02/skos/> or select the button below.