

The Ark Documentation.

Data Dictionary module.

Log in and select your study by clicking the hyperlink corresponding to the name of your study.

Once you have chosen your study we will be able to adjust study details or select modules and functions available in that study (for which you have privileges).

The screenshot shows a web browser window for 'prod.the-ark.org.au'. At the top left is the 'Centre for Genetic Epidemiology & Biostatistics' logo from 'THE UNIVERSITY OF WESTERN AUSTRALIA'. At the top right is 'THE ARK OPEN SOURCE SOFTWARE FOR MEDICAL RESEARCH' logo. The header includes a 'Logout' link. Below the header, a navigation bar has tabs for 'Study' (which is selected), 'Reporting', and 'Admin'. A sub-menu for 'Study Details' is open. The main content area contains form fields for 'ID' (with value 1), 'Status' (dropdown menu 'Choose One'), 'Principal Contact' (text input), 'Study Name' (text input), and 'Date of Application' (text input with calendar icon). Below this is a table listing studies:

ID:	Study Name:	Principal Contact:	Date of Application: (dd/mm/yyyy)
1	Lifepool	Lisa Devereux	
333	TIG		
566	Health Twist		
568	PMH Demonstration		
573	PathWest LM Demo		
577	IID Demonstration	Maxine Dennis	
580	LEI		
583	SNU Test		

Alternatively if you have a very long list of studies under your management you may use the search palette/panel at the top of the page. You can search/filter by id, name, principal contact, status of the study or date of application. Once you have added your filtering criteria, click the search button;

The screenshot shows a web-based application interface for managing studies. At the top, there's a header bar with the URL 'prod.the-ark.org.au'. On the left, the 'Centre for Genetic Epidemiology & Biostatistics' logo from the University of Western Australia is visible. On the right, the 'THE ARK' logo with the tagline 'OPEN SOURCE SOFTWARE FOR MEDICAL RESEARCH' is displayed. Below the header, a welcome message 'Welcome arksuperuser@ark.org.au | Logout' is shown. A navigation menu at the top includes 'Study', 'Reporting', and 'Admin'. Under 'Study', a sub-menu 'Study Details' is selected. The main content area contains a search form with fields for 'ID', 'Status' (a dropdown menu), 'Principal Contact' (a text input field), 'Study Name' (with a value 'pedigree' highlighted in blue), and 'Date of Application' (a date input field). Below the search form is a table listing studies. The table has columns: 'ID', 'Study Name', 'Principal Contact', and 'Date of Application (dd/mm/yyyy)'. The data is as follows:

ID:	Study Name:	Principal Contact:	Date of Application: (dd/mm/yyyy)
1	Lifepool	Lisa Devereux	
333	TIG		
566	Health Twist		
568	PMH Demonstration		
573	PathWest LM Demo		
577	IID Demonstration	Maxine Dennis	
580	LEI		
583	SNU Test		
584	random new		
585	IMRC Test		

As you can see the filter has helped us find our chosen study and we can click the hyperlinked study name as discussed before;

Centre for
Genetic Epidemiology
& Biostatistics
THE UNIVERSITY OF WESTERN AUSTRALIA

prod.the-ark.org.au

THE ARK
OPEN SOURCE SOFTWARE
FOR MEDICAL RESEARCH

Welcome arksuperuser@ark.org.au | Logout

Study Reporting Admin

Study Details

ID:
Status: Choose One
Principal Contact:

Study Name: pedigree
Date of Application: (dd/mm/yyyy) 17

Search Reset New

ID:	Study Name:	Principal Contact:	Date of Application: (dd/mm/yyyy)
579 << < 1 > >>	Pedigree WIP + Indicates a child study	Dr Adrian Bickerstaffe	07/02/2014

Open # on this page in a new tab the-ark 1.2 Copyright © the-ark.org.au. All rights reserved.

Once you have chosen your study we will be able to adjust study details or select modules and functions available in that study (for which you have privileges). The module we wish to select is Data Sets – then the function “Data Dictionary”.

The data dictionary is the list of longitudinal fields you have to choose from for longitudinal data. Some like to consider this phenotypic data fields, and some have referred to the collections of these fields as datasets or questionnaires. We basically have fields which can be reused and sets of fields which can be reused and re-run over time (ie; longitudinal data).

As you can see, the study below has fields based on systolic and diastolic blood pressure and a few other poorly named fields. These could be used in multiple collections of questions that will be repeated over time.

The screenshot shows a web browser window for 'prod.the-ark.org.au'. The header includes the Centre for Genetic Epidemiology & Biostatistics logo, a stylized tree icon, and THE ARK OPEN SOURCE SOFTWARE FOR MEDICAL RESEARCH logo. The page title is 'Study: Pedigree WIP'. A navigation bar at the top has tabs for Study, Subject, Datasets (which is selected), LIMS, Reporting, Work Tracking, Disease, and Admin. Below this is a sub-navigation bar with Data Dictionary (selected), Data Dictionary Upload, Data Set Definition, and Field Data Upload. The main content area contains a form for creating a new field with fields for ID, Field Name, Description, Field Type (with a dropdown menu 'Choose One'), Units, Minimum Value, Maximum Value, and buttons for Search, Reset, and New. Below this is a table listing existing fields:

ID	Field Name:	Field Type:	Description:	Question/Label For Field:	Units:	Min:	Max:
319	A	NUMBER	a		kg		
320	B	DATE	b				
321	C	CHARACTER	c				
211	diasRR	NUMBER	diastolic blood pressure	diastolic blood pressure			
216	diasRR_repeated_y1	NUMBER		diasRR Slightly Different Question?			
212	sysRR	NUMBER	systolic blood pressure	systolic blood pressure			

At the bottom left are icons for file operations, and at the bottom right are links for 'Display a menu' and 'the-ark 1.2 Copyright © the-ark.org.au. All rights reserved.'

We will now add a 7th field called heart rate.

Start by clicking the new button. The following will appear;

The screenshot shows a web-based application window titled "prod.the-ark.org.au". At the top left is the logo for "Centre for Genetic Epidemiology & Biostatistics, THE UNIVERSITY OF WESTERN AUSTRALIA". In the center is a colorful illustration of a tree with many people standing around it. On the right is the "THE ARK OPEN SOURCE SOFTWARE FOR MEDICAL RESEARCH" logo. The main content area has a header "Study: Pedigree WIP" and a navigation bar with tabs: Study, Subject, Datasets, LIMS, Reporting, Work Tracking, Disease, Admin. Below this is another row of tabs: Data Dictionary (which is highlighted in grey), Data Dictionary Upload, Data Set Definition, Field Data Upload. The main form is titled "Data Dictionary" and contains fields for "ID", "Field Name", "Field Type" (with a dropdown menu showing "Choose One"), "Description", "Question/Label For Field" (with a note about maximum 255 characters), "Encoded Values" (with a note about e.g.: 0=Yes;1=No), "Units", "Minimum Value", "Maximum Value", "Missing Value" (with a note about indicating field data values that are missing), "Default Value", and three buttons at the bottom: "Save", "Cancel", and "Delete". At the bottom of the page, there is a link "Display a menu" and a copyright notice "the-ark 1.2 Copyright © the-ark.org.au. All rights reserved."

Some fields are not so self-explanatory and I will explain those below. The ID field is a system based uneditable field. Field Type can currently only be a number, text, or date. Number fields can have min/max values, and these limits will be strictly enforced on upload of data. A default value will be filled in if empty values are uploaded on a data set upload.

One field that confused some people is the encoded value field. This is described further in the custom field uploader documents. But basically, the idea is (for convenience or to enable data migrations/uploads from another system) you can upload shorthand values like 0 for no, 1 for yes by setting up encoded values as follows “0=no;1=yes;” (minus the quotes).

The screenshot shows a web-based application interface for managing data dictionaries. At the top, there's a header bar with the URL 'prod.the-ark.org.au'. Below the header, the 'Centre for Genetic Epidemiology & Biostatistics' logo and a stylized tree icon are visible. To the right, the 'THE ARK OPEN SOURCE SOFTWARE FOR MEDICAL RESEARCH' logo is displayed.

The main navigation menu includes links for Study, Subject, Datasets, LIMS, Reporting, Work Tracking, Disease, Admin, Data Dictionary, Data Dictionary Upload, Data Set Definition, and Field Data Upload. The 'Data Dictionary Upload' link is currently active, indicated by a darker background.

The central form is titled 'Field Name:' and contains the value 'HeartRate'. It includes a 'Description:' field with the text 'Your resting heart rate'. Below this, the 'Question/Label For Field:' field contains 'Subjects resting heart rate'. There are notes indicating a maximum of 255 characters.

Other configuration options include 'Field Type:' set to 'NUMBER', 'Units:' set to 'BPM', 'Minimum Value:' set to '10', and 'Maximum Value:' set to '500'. There are also fields for 'Encoded Values:' (with a note about 0=Yes;1=No) and 'Default Value' (which is currently empty and highlighted with a blue border).

At the bottom of the form are three buttons: 'Save', 'Cancel', and 'Delete'.

Display a menu

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Then click save;

If you have no issues and it has correctly saved, the you will have a green message at the top of the page telling you so. If there were any issues (rare on this page), a message will show up in red describing what you have done wrong.

Welcome arksuperuser@ark.org.au | Logout

Study: Pedigree WIP

Study Subject Datasets LIMS Reporting Work Tracking Disease Admin

Data Dictionary Data Dictionary Upload Data Set Definition Field Data Upload

o Field HeartRate was created successfully

ID:	2520	Field Name:	HeartRate
Field Type:	NUMBER	Description:	Your resting heart rate
Note: Disabled if data exists			
Question/Label For Field: Subjects resting heart rate Note: Maximum 255 characters			
Units:	BPM	Encoded Values: e.g.: 0=Yes;1=No;	
Minimum Value:	10.00	Maximum Value:	500.00
Missing Value:		Default Value	
Note: Indicates field data values that are missing			
<input type="button" value="Save"/> <input type="button" value="Cancel"/> <input type="button" value="Delete"/>			

Display a menu

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