

CRC **CARE**

*A safer, cleaner
environmental future*

User manual

rankCARE™ 1.0

Prioritise contaminated sites for improved decision-making



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User Manual

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1. Introduction

The rankCARE™ software has been developed by CRC CARE to prioritise contaminated sites for decision making. It is able to consider a list of weighted 'parameters' to define the extent of contamination risk and urgency of action for a given contaminated site/area. It also allows 'sites' to be split into one or more 'areas', with parameters applied to each site. A final score is rendered for each area and all data are presented in a graph allowing the areas to be ranked.

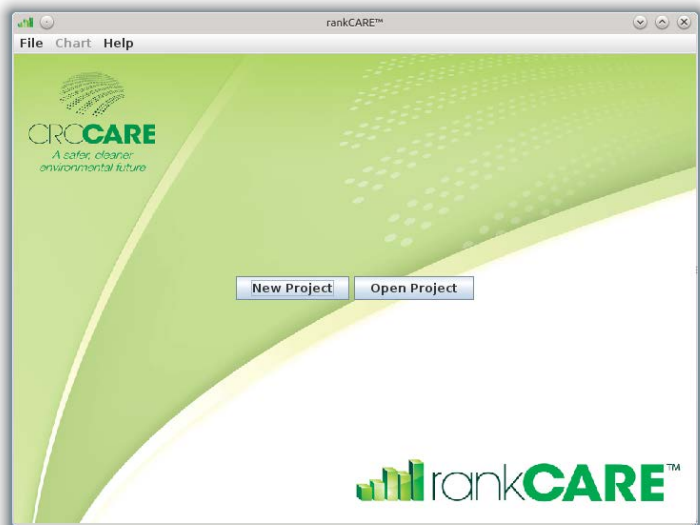
Data can be added to, modified and deleted as the situation changes. Charts can be exported or printed for inclusion in reports, and the raw data can be exported as comma separated values (*.csv) for manipulation in spreadsheet programs (such as Microsoft Excel).

The project file can be administered by a manager who has the ability to lock it, allowing it to be forwarded to anyone else but preventing any unauthorised changes. All changes are logged against the user's username as recorded on the computer's operating system (e.g. Microsoft Windows), and the project can be 'rolled back' to a previous point in time if unintentional changes are made.



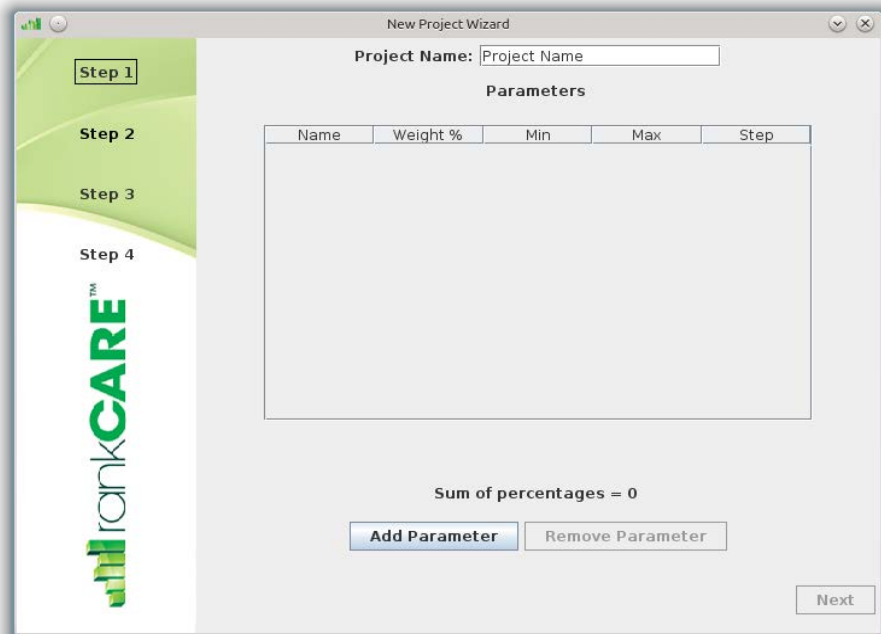
2. Creating a new project

Upon starting the program, you will be greeted with the welcome screen. The only two options from here are starting a new project, or opening an existing project. At this point, you will step through the process of starting a new project. Click the 'New Project' button, and this will open the 'New Project Wizard'.



At **Step 1**, you will be asked to enter a Project Name; this is the name that the project will be known as from here on. You will also

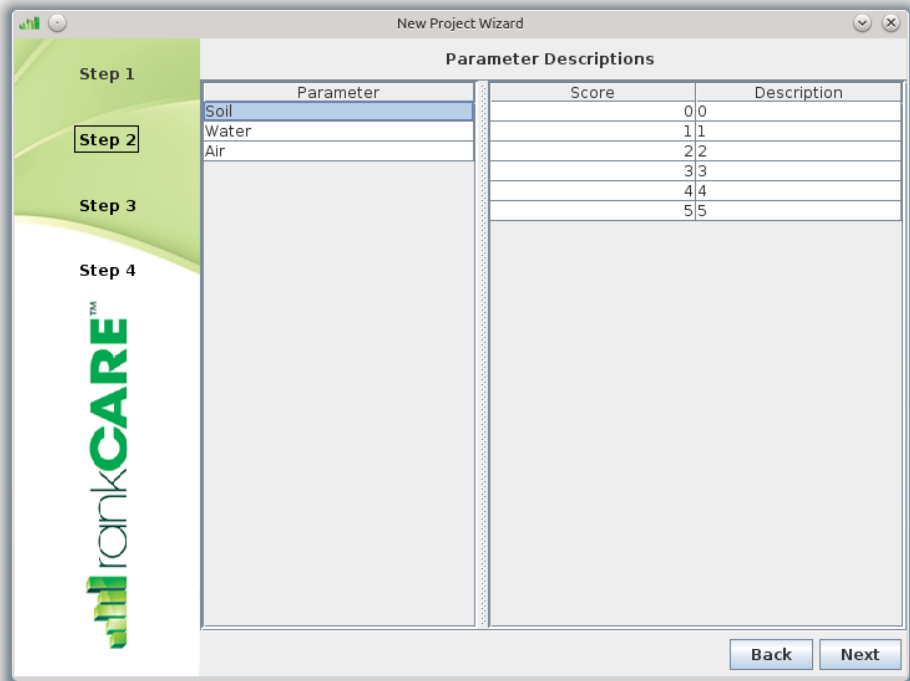
be asked to specify one or more parameters and assign them integer weights. Each parameter must have a name (e.g. 'soil', 'water', 'air', 'risk', 'receptor', 'time', 'expenditure' and so on), and the weights of all the parameters added together must equal 100. A counter near the bottom of the page ('Sum of percentages') helps you keep track of this. Each parameter also holds a minimum, maximum and step value. The minimum is the lowest value that can be



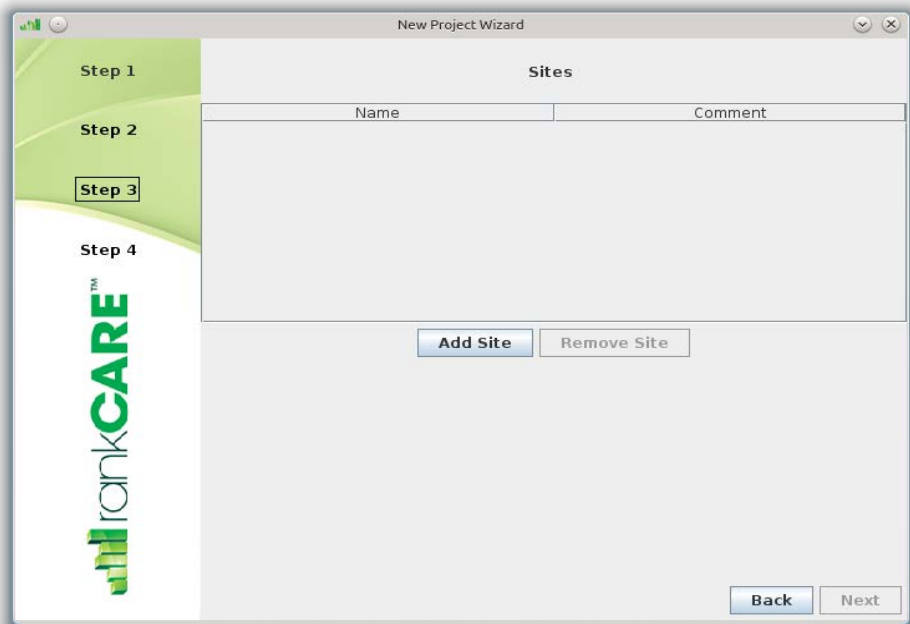
assigned to this parameter; the maximum is the highest value that can be assigned. The 'Step' value indicates the step (i.e. the gap or difference), parameter values must take between the minimum and maximum values to be considered valid. For example, a parameter with a minimum value of 2, a maximum of 6 and a step of 1 can have the values 2, 3, 4, 5, and 6; a parameter with a minimum of 3, a maximum of 9 and a step of 2 can have the values 3, 5, 7, 9.

Once you have defined your project name and parameters, click 'Next' to continue.

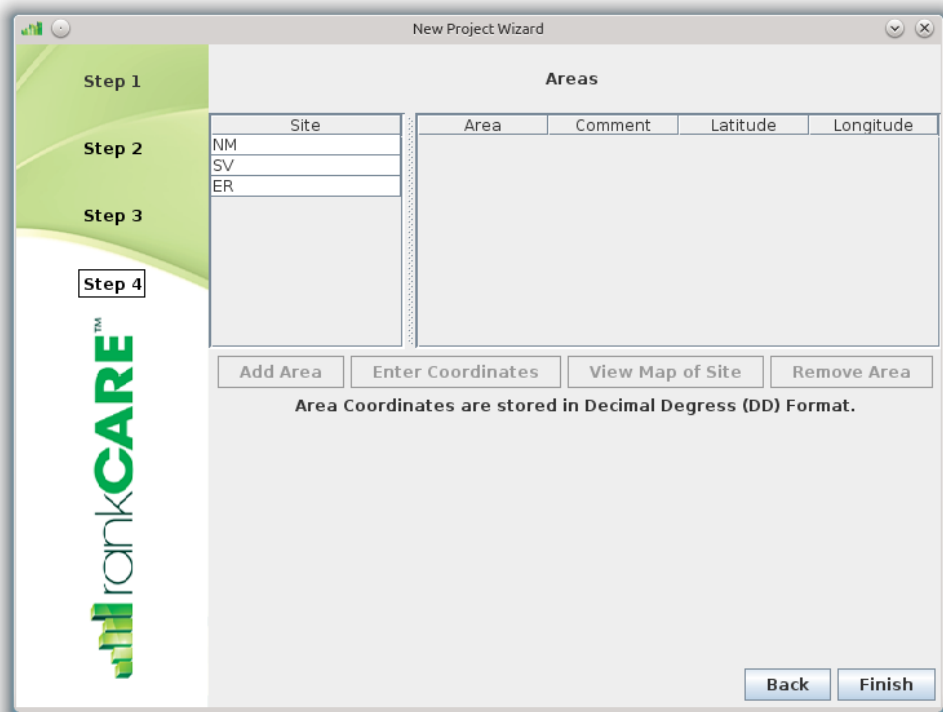
At **Step 2**, you will be presented with the parameters you defined in the previous step. To the right of the screen, you will find all the valid values for the parameter selected on the left of the screen. Here, you are able to add descriptions to each of the values indicating the meaning of the score (e.g. 'no contamination', 'mild contamination', or 'severe contamination'). Once you have finished adding the descriptions, click 'Next' to move onto step 3.



Step 3 is where you can define the sites. Sites can contain one or more 'Areas'. Each Site has a name and a description. Once you have added your site names and descriptions, click 'Next'.



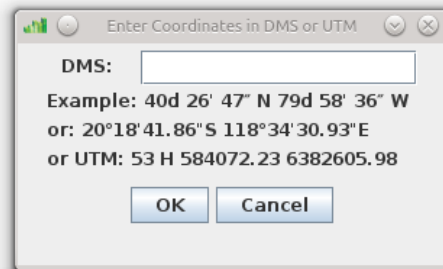
Step 4 is where the areas are added to each site. Select the site you wish to add an area to from the list on the left, then click the 'Add Area' button. Each Area has a name, a comment allowing for more description, and an optional latitude and longitude represented in Decimal Degrees (DD) format. If you wish to enter GPS coordinates in Date Minute Second (DMS) or UTM



formats, select the area, then click the 'Enter Coordinates' button. An dialog box will appear, allowing coordinates to be entered. They must be formatted in the exact same way as the examples in this window.

While an area is selected, its location can be viewed in Google Maps by clicking the 'View Map of Site' button which will open the location in your default browser.

Once all your areas have been added, click 'Finish' to proceed to entering the raw data.



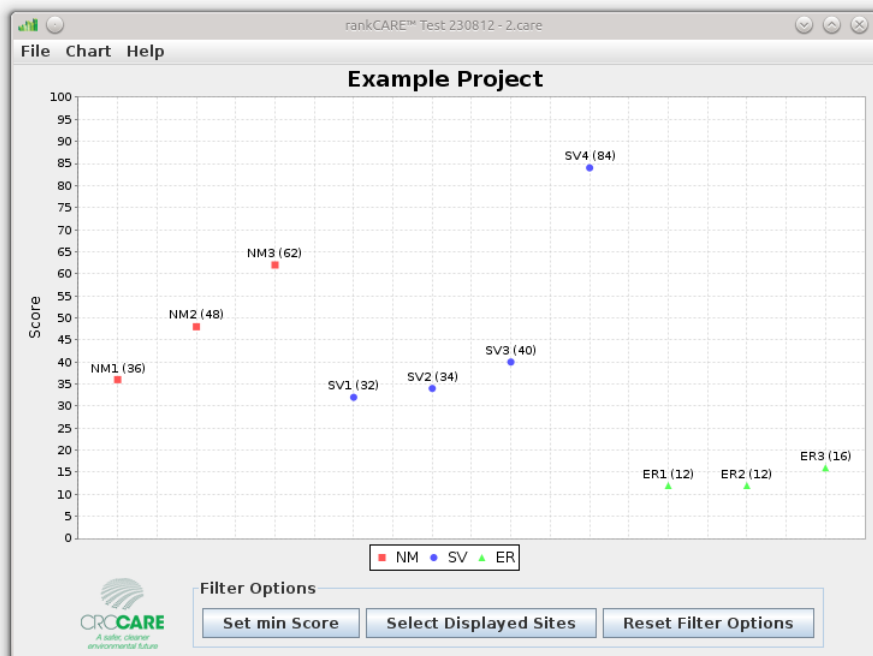
2.1. Editing raw data

You will now be presented with a dialog listing all your sites and their associated areas to the left. On the right is a table with a column for each of the defined parameters. The raw value associated with each area and parameter can be modified by clicking on the value and selecting the new value from the drop down box. Once you are finished entering the values, click 'Close' to proceed to the chart view.

Site Name	Area Name	Soil	Water	Air
NM	NM1	0 (None)	0 (None)	0 (None)
	NM2	0 (None)	0 (None)	0 (None)
	NM3	0 (None)	0 (None)	0 (None)
SV	SV1	0 (None)	0 (None)	0 (None)
	SV2	0 (None)	0 (None)	0 (None)
	SV3	0 (None)	0 (None)	0 (None)
	SV4	0 (None)	0 (None)	0 (None)
ER	ER1	0 (None)	0 (None)	0 (None)
	ER2	0 (None)	0 (None)	0 (None)
	ER3	0 (None)	0 (None)	0 (None)

3. The chart view

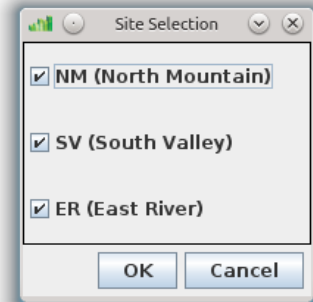
The Chart View is the main area of rankCARE™, and the default view is an XY plot.



3.1. Controlling the graph

The three available chart views are the XY plot, bar graph, and a line graph. You can switch between these views by selecting the 'Chart' menu and scrolling down to 'Chart Type'. Each point/bar on the graph displays the associated area name along with the area's total score. These can both be toggled on or off by selecting the associated options from the Chart menu. From this menu, you can also copy the chart to the clipboard, save the chart as an image, or print the chart.

The 'Set min Score' button at the bottom of the window will change the range of the y-axis to only show those areas with equal or higher total score than the value you enter. If you wish to view a subset of sites then the 'Select Displayed Sites' button will open the 'Site Selection' dialog box allowing you to tick only those sites to display. Clicking the 'Reset Filter Options' will reset the chart back to its default state at any time.



Information on individual areas can be viewed at any time by hovering your mouse over the particular point/bar until the cursor is shaped like a hand. A tooltip will then be displayed with the area's site name, area comment and values for each of the parameters. Editing of the parameter values can be done by clicking on the point or bar, which will open a dialog box allowing you to view and change particular values, along with an option to open the area in Google Maps, if the coordinates have been entered. Changes will be reflected immediately in the graph.

When preparing a chart for a presentation or report, more detailed modifications can be made by right clicking anywhere in the graph and going to 'Properties'. From here the title of the chart can be changed temporarily, all colours can be modified, axis ranges tweaked, and nearly any other visual element can be changed. Clicking the 'Reset Filter Options' button on the main window will revert the chart back to the original form once the custom chart has been copied, saved or printed.

4. Editing existing projects

With a project open, you can edit any of the details by going to the 'File' menu and selecting 'Edit Project Settings'. This will return you to the 'New Project Wizard' with all of the entries already filled in. It is important to note that making some changes such as removing sites or areas will result in the raw parameter values needing to be re-entered.



5. Editing/importing/exporting data

The raw data can be exported in two different csv formats, by going to the 'File' menu and selecting either 'Export Data' or 'Export Data with Headers'.

When exporting raw data, only the values themselves and total area scores will be exported. Each line corresponds to an area, with the total score in the rightmost column.

When exporting raw data with headers, the names of each parameter will occupy the first row of the csv file, while the site and area names will occupy the first two columns.

When needing to largely modify the raw data associated with a project, the complete table can be viewed by selecting 'Edit/Import Raw Data' from the 'File' menu. This dialog will look familiar, as it is also used in the new project process. All values can be changed, and will be immediately reflected in the chart, if you choose to save after clicking the 'Close' button.

After editing raw values in another program, it is important to ensure the values are in the exact same location within the csv file when importing back. Importing can be done from the 'Edit/Import' dialog. It is important to ensure that you press the 'Import from CSV file' button if you're importing values that were exported as raw data, and press the 'Import from CSV with headers' if you are importing a file with headers.

6. Locking/unlocking files

When viewing a locked file, the title bar of the main window will include the word 'locked' after the filename. In this mode, the chart can be viewed and manipulated, but the core project settings and associated data cannot be edited. To unlock a locked file open the 'File' menu and click on 'Unlock Project', you will be asked to enter a password that was set by the person locking the file. Upon successfully entering the password you will be able to edit the project.

To lock a project, go to the 'File' menu and click 'Lock Project', you will be asked to enter a password twice to ensure there are no typos. After clicking OK you will be asked if you wish to save the project – clicking 'No' will allow you to view the project but not alter any details or save the project as it is locked. If you close then open this file again, it will not be locked. If you click 'Yes' after entering your password the project will be saved as locked, and will require you to re-enter the password to make any changes.



7. Viewing the changelog

Every change made to the project is logged along with the time and the Windows username of the user who made the change. To view the log, go to the 'File' menu and select 'View Changes'. All the changes will be listed, along with an option to print the log, or save it as a csv file.

Most crucially a line in the log can be selected and by pressing the 'Revert to selected line' button the project will be wound back to that point undoing all changes after that line. Be careful when saving after rewinding a project as those removed changes will be lost.

Date	User	Change
18/10/2012 16:59:24	ryan	New Parameter 'P1' added.
18/10/2012 16:59:24	ryan	New Parameter 'P2' added.
18/10/2012 16:59:24	ryan	New Parameter 'P3' added.
18/10/2012 16:59:29	ryan	Parameter name changed fro...
18/10/2012 16:59:30	ryan	Parameter name changed fro...
18/10/2012 16:59:33	ryan	Parameter name changed fro...
18/10/2012 16:59:45	ryan	The weight of Parameter 'Soil' ...
18/10/2012 16:59:47	ryan	The weight of Parameter 'Wate...
18/10/2012 16:59:48	ryan	The weight of Parameter 'Air' h...
18/10/2012 16:59:50	ryan	Project name changed from 'Pr...
18/10/2012 18:36:40	ryan	Description of Parameter 'Soil' ...
18/10/2012 18:36:43	ryan	Description of Parameter 'Soil' ...
18/10/2012 18:36:47	ryan	Description of Parameter 'Soil' ...
18/10/2012 18:36:59	ryan	Description of Parameter 'Soil' ...
18/10/2012 18:37:02	ryan	Description of Parameter 'Soil' ...
18/10/2012 18:37:06	ryan	Description of Parameter 'Soil' ...
18/10/2012 18:37:10	ryan	Description of Parameter 'Wat...
18/10/2012 18:37:12	ryan	Description of Parameter 'Wat...
18/10/2012 18:37:15	ryan	Description of Parameter 'Wat...
18/10/2012 18:37:18	ryan	Description of Parameter 'Wat...
18/10/2012 18:37:19	ryan	Description of Parameter 'Wat...
18/10/2012 18:37:25	ryan	Description of Parameter 'Wat...
18/10/2012 18:37:29	ryan	Description of Parameter 'Air' c...