

## Project 6 - RevMan 5.1

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### 6.1 Background

Review Manager (RevMan) is the tool used for preparing and maintaining Cochrane reviews. RevMan 5.0 was released in March 2008 as the first major update in nine years. Since then, we have released a number of improvements to the software and RevMan 5.0.18 is the latest version at the time of writing this report (March 2009). The program is now considered to be in a stable condition, and new bugs are uncommon. More than 5000 people are actively using RevMan 5<sup>1</sup>, and all published protocols and reviews were in RevMan 5 format by Issue 1 2009 of The Cochrane Library. Most draft reviews are now also in the new format.

The Nordic Cochrane Centre maintains the 'wish list' of requests for changes to RevMan. There are 99 items on the list, 82 of which have been requested since the release of RevMan 5.0 (as of March 20 2009). The RevMan Advisory Group (RAG) has considered 57 of the wish list items, and 11 items have been given the priority *Important*, while 27 items have the priority *Desirable*. Our other priority levels are *Critical* (0), *Low Priority* (10), and *Don't Implement* (9). Forty-two items remain to be considered at future meetings of RAG. This project description does not list each feature recommended by RAG, but the individual priority can be seen on the online list (<http://www.ccsims.net/RevMan/revman-wish-list>).

**Note on process:** The RAG meeting scheduled for January 2009 to discuss priorities for RevMan 5.1 was cancelled following the resignation of Mike Clarke as convenor. This means that the IMS Team are not able to present a fully specified proposal for RevMan 5.1 at this time, since guidance from RAG is vital to this. Instead, this proposal has been developed to allow the Steering Group to consider the general need for further development of RevMan in planning the budgets for the coming years.

### 6.2 Proposal and discussion

RevMan 5.1 would be an optional update to RevMan 5.0, which means that there can be no major changes to the review structure or anything else that would make reviews edited in 5.1 incompatible with 5.0. Any major changes will have to wait for RevMan 6 (not yet planned), which would be mandatory for all Cochrane reviews.

A full list of new features for RevMan 5.1 cannot be finalised until the RAG has considered the remaining items on the wish list, but the aim would be to include all the items prioritised as *Important* or *Desirable*. The lists of new features would probably include improvements in the following areas (not all of these have yet been prioritised by the RAG):

<b>Area</b>	<b>Details / rationale</b>	<b>Scope of benefit</b>
<b>Multiple author affiliations</b>	Allow more than one affiliation per author. Requested by the Publishing Policy Group.	Few authors.
<b>Integration of functionality of GRADEPro</b>	To make it easier to generate, and especially update, Summary of Findings tables.	All authors. Rate of adoption of SoF tables.
<b>Sort in 'Open' file dialogs</b>	For example to sort on the date modified when looking for the file to open. Standard in other modern software.	All users.
<b>More validation checks</b>	9 cases - e.g. for length of abstract, broken links, empty references, number of figures, etc. Will improve quality and ease editorial process.	Editorial bases. Quality of end product.

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<sup>1</sup> The number is derived from our log of requests for updates during the month of February 2009. When an individual user's installation of RevMan connects to Archie, this is recorded separately. Duplicates are eliminated, so each user is only counted once for the reported period.

<b>Area</b>	<b>Details / rationale</b>	<b>Scope of benefit</b>
<b>Importing</b>	3 cases - e.g. importing of plain text and Vancouver formatted references. To give users more options for generating files that can be imported.	Some authors.
<b>Improved editing of comparisons and outcomes</b>	3 cases - e.g. to change settings for all outcomes within a comparison at the same time.	All users.
<b>Improvements to track changes and text marker</b>	5 cases - e.g. allow text marker to be applied to text that contains links. Would be very useful to all those who rely on these functions, e.g. for copy editing.	All users involved in editing.
<b>User defined headings shown in outline pane</b>	Would make it easier to navigate in reviews with many user defined headings.	Some users.
<b>A function to open any section for editing on a separate tab</b>	For example, to edit an included study table in a separate tab/window. This would make it easier to switch between working on the table and the related text sections.	Some users.
<b>Easier reference editing</b>	3 cases - e.g. by making it possible to browse through all references in a single tab so you don't have to open a new tab for each reference.	All users.

**Table 1.**

There are also a number of cases categorised as bugs (which could also be seen as feature requests) that have not yet been addressed in the updates to RevMan 5.0 because they were not critical and required a considerable amount of time to program. Some of these cases that would be suitable for RevMan 5.1 are:

- Optional heading cannot be inserted after a recommended heading at the same level
- Word Count counts words deleted using Track Changes
- Yellow marker removes track changes information (and vice versa)

The programming and release of RevMan 5.1 would also include the need to update the user documentation to cover all new features and fill gaps that have been identified in the existing documentation.

### 6.2.1 Updating the Java programming framework

RevMan 5.0 is based on version 5 of the Java programming framework, but version 6 has been available for more than two years. Some of the advantages of version 6 are improved start-up time (RevMan would open faster) and a generally improved look-and-feel of the user interface (e.g. on Windows Vista). Updating from Java 5 to Java 6 requires very little programming, but after the switch it is important to test all parts of RevMan for incompatibility issues. Since RevMan 5.1 will be thoroughly tested, this would be a good opportunity to update the Java framework and benefit from the improved features.

## 6.3 Summary of recommendations

To plan for the development of a major (but non mandatory) update to RevMan (RevMan 5.1) that includes the features recommended by the RAG and would improve the use of the software.

## 6.4 Resource implications

The required development time is proportional to the number of items that are approved for inclusion. Without knowing the details it is not possible to provide a robust prediction of the resources needed. However, we suggest

that a minimum of 18 FTE weeks will be needed for programming, 6 FTE weeks for testing and technical documentation and 4 FTE weeks for user documentation. This level of resource commitment would achieve significant improvements for a large number of users, without spending resources on requests with minor or no impact.

## 6.5 Impact statement

Authors, RGCs, Editors and users of the end product would benefit from the new, improved features as described in Table 1.