



## Readerware 4.0 Loan Client

Revision 19

## An Introduction to the Readerware Loan Client

The Readerware Loan Client adds circulation support to the Readerware databases. You have always been able to check items in and out with the standard Readerware programs, and for many the features offered were all they needed. However some users wanted more functionality and a way to improve the workflow, to make it easier to check items in and out. The Readerware Loan Client addresses both of these issues, It both adds functionality and makes it easier and faster to check items in and out.

With the Readerware Loan Client you can:

- Add borrowers to the Readerware database and easily maintain the borrower records.
- Easily see what items a borrower has on loan.
- Import borrowers from external sources.
- Delete multiple borrowers in a single transaction.
- Print borrower barcodes to speed up the checkout process.
- Print borrower reports.
- Search for borrowers using virtually any field, ID, last name, phone number, organization etc.
- Support for multiple platforms, each component can run on any operating system. You could use Windows to maintain your database and run the Readerware loan client on a Mac.
- Full online help

Learn the basics and [get started](#) with the Readerware Loan Client.

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# Getting Started with the Readerware Loan Client

When you open the Readerware loan client the main window is displayed. The top section of the window is used to select and maintain borrowers. The bottom section is used to select the items you want to checkout or return.

## Setting up your default searches

Before you start using the Readerware Loan Client there are some settings you need to decide on:

How do you want to search for borrowers? - You can search for borrowers by ID, name, phone number etc., select the search you want to use from the drop down list. There is a default search, the one that is selected when you start the program, it is important to make the search you will use most often the default search. For example if you will be using borrower ID cards with a barcode, you should select the ID search as the default. This means that the ID search is selected when you start the program and you can simply scan the barcode to identify the borrower. If you plan on searching on last name, set that as the default search.

How do you want to search for books, albums and videos? Again you can search on virtually any field but it is important to set the default search. If you will be searching by the product key, the ISBN of a book or the UPC of a DVD etc., select the Product Key/Barcode search. If you will be searching by author or artist, select the Primary Contributor search. If you have assigned your own barcodes to every item, select the ID or User Number search.

To set both the default borrower and item searches, select the Preferences menu item, then Search List. There are separate sections for the borrower and item searches. You can customize each list, you can show and hide searches, you can move the searches up and down the list. The first search is the default search, so move the desired search to the top of the list to set the default search.

Why is this important? Suppose you have set the default borrower search to ID and the default item search to ID. Your borrowers have barcoded ID cards and your books, albums and videos have a barcoded ID label on them. To checkout items you would:

- Scan the borrower barcode
- Scan the first item barcode
- Scan the second item barcode
- etc.
- Click on the Loan button

That's it, all the selected items are checked out.

## Selecting the mode

The Readerware loan client operates in two modes, loan mode and return mode. It is important to select the mode as this changes the way the program operates.

For example in loan mode you have to select the borrower and the items to check out. So when you are in loan mode Readerware sets up the default searches so that you can quickly do this.

In return mode things work a little differently. You start off by selecting the borrower as normal but then Readerware displays all the items currently on loan to this borrower. You can select the items and return them.

The mode determines how the basic functions within the program work, so it is important to set the mode first.

By default the Readerware Loan Client opens in loan mode but you can change that in [Preferences](#).

## Using hotkeys

You can assign any function to a hotkey. So for example, rather than click on the Loan button to checkout, you could hit the F2 key. You can set hotkeys in preferences. Select the Preferences menu item, then Hotkeys.

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## Numbering your items

Most libraries will want to track individual copies of items. This lets you keep track of which borrower has which copy. To do this with Readerware there are two requirements:

- Each copy must be entered into the database separately
- Each copy must have a unique ID

## Adding to your databases

To add each copy to the database separately, simply use auto-catalog as normal and scan the ISBN/UPC on each copy.

There is one change you may have to make first. By default Readerware rejects duplicate ISBNs and UPCs. You change this setting in preferences. Select the Preferences menu item, then Database, then Settings. Make sure that the Allow Duplicates option is checked.

## Assigning a unique ID to every copy

As you add each item to the database Readerware assigns it a unique ID, in the loan client we call this the Product ID. You can add the Product ID column to the table view and see the ID assigned to each item.

As you are adding each copy separately, each copy will have a unique ID.

The ID will be unique and will never change. As you delete items from the database, there will be gaps in the ID. This is normal, an ID is never reused.

This is the easiest way to assign a unique ID to every item, let Readerware do it for you. You can then print ID barcode labels for your items from within Readerware.

However there may be times when you want your own IDs. Readerware has a database column for this called User Number. If you prefer you can enter your own IDs in the User Number column. Again, you can then print User Number barcode labels for your items from within Readerware.

There are also companies that will print asset tags and asset barcode labels for you. If you prefer to go this route all you need to do is place the barcode label on the item and then scan it into the Readerware User Number column.

## Checking items out

The fastest way to check an item out is to simply scan the Product ID barcode on the item, this identifies the particular copy you are checking out.

If you are using the Product ID column, select an ID search and scan your barcode.

If you have assigned your own numbers, select a User Number search and scan the barcode.

Remember to setup the [default search](#) to whatever ID field you are using.

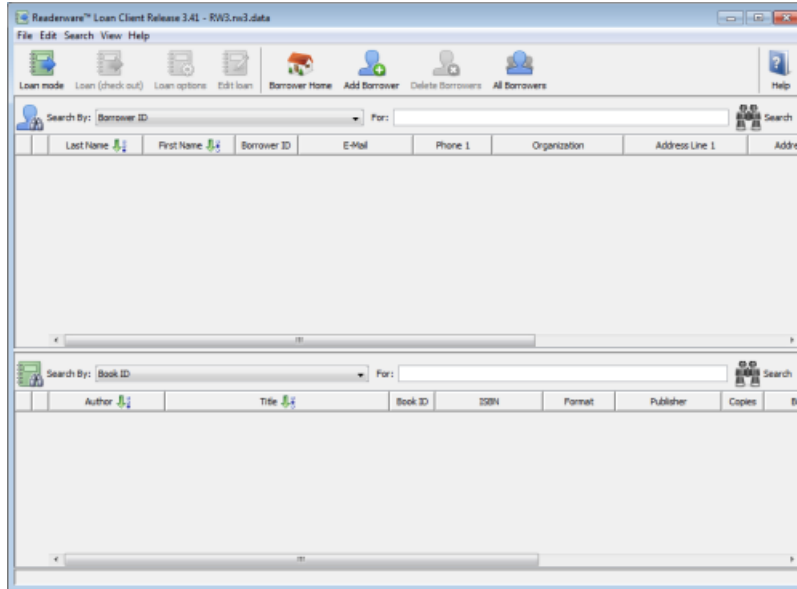
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# The Readerware Loan Client Window

The Readerware Loan Client window consists of four components:



[Menu](#) - The Readerware menu provides access to all functions.

[Toolbar](#) - The toolbar provides quick access to commonly used functions. The toolbar buttons include an icon and label describing the function. If you need more information on what a button does hold the mouse over it to display a tooltip. The appearance and behavior of the toolbar can be changed in [Preferences](#).

[Borrower Section](#) - The borrower section is used for selecting and maintaining borrowers. It consists of the borrower search bar that is used to search for a borrower and a table view where the search results are displayed. You can select a borrower from the table view and display it in the detail view where you can view and update borrower information.

[Item Section](#) - The item section is used for selecting the items you want to check in or out. It consists of the item search bar that is used to search for one or more items and a table view where the search results are displayed.

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# Readerware Loan Client Menus

The Readerware Loan Client window has the following menus:

## File

Select the **Open** or **Open Recent** menu items to switch databases.

Select **Properties** to display database information and statistics.

Select from the **Print** menu to produce various reports:

**Borrower report** - A report listing the items currently checked out to the selected borrowers. You can choose to list all borrowers or only borrowers that currently have items checked out.

**Borrower receipt** - Print a short receipt for the selected borrowers listing all items they have checked out. You can then give the receipt to the borrower at checkout or as needed. This is designed for use with receipt printers but will work on any printer.

**Overdue report** - Print a report of all borrowers with overdue items by borrower. The borrower is listed with contact information followed by their overdue items.

**Borrower ID barcodes** - You can print barcode labels containing the borrower ID. These can be used with ID cards when a borrower checks items in and out.

**Borrower list** - Print a simple list of the selected borrowers with their contact information.

**Export** - Export the selected borrowers to a CSV or TAB delimited file.

**Import** - Import a file of borrowers, designed to help you populate your Readerware borrower list from other systems.

**Exit** - Close the Readerware Loan Client

## Edit

Select **Add Borrower** to add a new borrower to the database.

Select **Delete Borrowers** to delete one or more borrowers from the database.

Select **Loan Mode** to switch between loan and return modes. If the menu item is checked, you are in loan mode.

Depending on the mode of the application this menu item will be displayed as **Loan (Check out)** or **Return (Check in)**. Selecting this menu item will perform the specified action.

When checking items out the **Loan Options** menu item will be enabled. By default a new loan begins on the current date and the length of the loan is the value set in preferences. Use this menu item to change the terms on new loans. You can change the out date and the due date. These settings will be in effect until you change the borrower. i.e. All new loans to this borrower will use the terms set in the Loan Options dialog.

When displaying an existing loan the **Edit Loan** menu item will be enabled. You can edit the terms of the current loan. i.e. Extend the due date.

The **Clear Outstanding Loans** menu item can be used to clear any outstanding loans for the selected items. This function should be used with caution. It can be used in a classroom situation when you need to clear all outstanding loans at the end of the school year, it saves you having to return each item individually. It can be used to return an item when it is not possible to select the borrower first, i.e. when a borrower was deleted with an outstanding loan.

## Search

Select **Borrower Search** to select the default borrower search. The search bar has the focus and you can enter the search criteria.

Select **All Borrowers** to display all borrowers in the borrower table view.

Select **Item Search** to select the default item search. The search bar has the focus and you can enter the search criteria.

Select **All Items** to display all items, books, music and videos in the table view.

## View

Select **Borrower Home** to display the current borrower search results in the table view. Designed to be used to return from the borrower detail view to the borrower table view.

Select **Borrower Detail View** to display the currently selected borrower where borrower contact information can be edited.

Select **Borrower Reload** to refresh the current borrower display.

Select **Item Home** to display the current search results in the table view. Designed to be used to return from the detail view to the table view.

Select **Item Detail View** to display the currently selected item where the item information can be edited.

Select **Item Reload** to refresh the current item display.

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## Readerware Loan Client Toolbar

The Readerware Loan Client window toolbar has the following buttons:

**Loan/Return Mode** - Select this button to Toggle between loan and return modes. The button icon and title will change to indicate the current mode.

**Loan/Return** - Depending on the mode of the application this button will be displayed as **Loan (check out)** or **Return (check in)**. Selecting this button will perform the specified action.

**Loan Options** - When checking items out the **Loan Options** button will be enabled. By default a new loan begins on the current date and the length of the loan is the value set in preferences. Use this button to change the terms on new loans. You can change the out date and the due date. These settings will be in effect until you change the borrower. i.e. All new loans to this borrower will use the terms set in the Loan Options dialog.

**Edit Loan** - When displaying an existing loan the **Edit Loan** button will be enabled. You can edit the terms of the current loan. i.e. Extend the due date.

**Borrower Home** - Select **Borrower Home** to display the current borrower search results in the table view. Designed to be used to return from the borrower detail view to the borrower table view.

**Add Borrower** - Select **Add Borrower** to add a new borrower to the database.

**Delete Borrowers** - Select **Delete Borrowers** to delete one or more borrowers from the database.

**All Borrowers** - Select **All Borrowers** to display all borrowers in the borrower table view.

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## Readerware Loan Client Borrower Section

The borrower section of the Readerware Loan Client window consists of a search bar and table view containing the search results. You can also drill down and display the detail view for any borrower.

When the program starts the borrower search bar has the focus, the default search is selected and you are ready to enter the search criteria, scan a barcode or enter the search text. This means that as soon as the program opens you are ready to search for borrowers. The same thing happens after you switch between loan and return modes. The idea is that the borrower search bar is the starting point for checking books in and out.

You can customize the borrower search bar in preferences. It is important to set the appropriate default search. If you are using a barcode reader to select the borrower, make sure the Borrower ID is the default search selection. If you will be selecting borrowers from the list, make the Borrower search the default. If you will be searching by last name or phone number, make them the default search. You can always select another search but it is important that the default search is set so that you are ready to go when the program starts. If you normally check out by barcode then you have the Borrower ID search as the default. If a borrower has forgotten their ID, you can switch to a last name search for example.

However you search for borrowers, the matching borrowers are displayed in the table view. That should contain enough information to identify the correct borrower. You can also click on the green arrow icon to display the borrower in the detail view. If a borrower wants to change their contact information, you can do this in the borrower detail view. Click on the Borrower Home toolbar button to return to the table view.

As you select a borrower in the table view, the focus is switched to the book search bar. You are now ready to search for the book to loan out or return.

Put this altogether and you can see that the Readerware Loan Client makes it very quick and easy to check books in or out. Scan the borrower barcode to identify the borrower. Without you doing anything else you are now ready to scan the barcode on the book. Finally click on the Loan button and the book is checked out.

You can also assign any function to a hotkey. So rather than click on Loan to checkout, you could hit the F2 key. You can set hotkeys in preferences.

### Changing the loan terms

When you make a new loan, Readerware uses the current date as the loan date and calculates the return date using the default loan period specified in [preferences](#). If you want to change either date click on the **Loan Options** toolbar button to display the Loan Options dialog. You can change the loan out date and the due date. These settings will remain in effect until you change the borrower. i.e. All new loans to this borrower will use the terms set in the Loan Options dialog.

### Editing a loan

You can also update an existing loan. Switch to return mode, select the borrower and then the book. Click on the **Edit Loan** toolbar button to display the Edit Loan dialog. Again you can change both the loan out date and the due date. This is designed to let you extend a loan.

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## Readerware Loan Client Item Section

The item section of the Readerware Loan Client window consists of a search bar and table view containing the search results. You can also drill down and display the detail view for any item.

The Loan Client can search all three databases, books, music and video. So the search results could be of any type. For that reason the loan client table view only contains common fields that can be found in all products.

When a borrower is selected the focus is transferred to the item search bar. What happens exactly depends on whether the program is in loan mode or return mode.

In loan mode the default search is selected and you are already to enter the search criteria, scan a barcode or enter the search text. This means that as soon as you select the borrower you are ready to select the first item to check out. You can customize the item search bar in preferences. It is important to set the appropriate default search. If you have assigned your own barcode labels to each item, then you need to select an ID or User Number search. If you will be searching for items using the product barcode, you need to select a Product key/Barcode search etc. You can always select another search but it is important that the default search is set so that you are ready to go when a borrower is selected. If you normally check out by product key but you run into an item with no key, you can switch to a title search for example. In loan mode you can search for multiple items and each one will be added to the results list. When done click on the Loan button to loan out all selected items to the current borrower.

In return mode Readerware displays the items the borrower has checked out and selects them, you can click on the Return button to check them all in. To return only some items, change the selection so that only the items to be returned are selected.

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## Readerware Table View

The Readerware table view displays your data in a spreadsheet style view.

You can customize the view, you can determine what columns are displayed and in what order. To show or hide a column, right click on a column header and use the popup menu. To move columns around, drag the column header to the desired location.

### Sorting the table view

You can sort the table view on any column(s). To sort on a column, just click on a column header. An icon is displayed in the header to indicate it is the sort column. The arrow indicates whether the sort is ascending or descending. Click again in the column header to toggle the sequence.

To sort on a secondary column hold down the Ctrl key, (Mac users hold down the Apple/Command key), and click on another column header. For example to sort your borrowers by last name then first name, first click on the last name column header. Then hold down the Ctrl key and click on the first name column header.

### Navigating the table view

You can select one or more rows by clicking on the cursor icon at the beginning of a row.

You can display a particular item in the detail view by clicking on the green enter icon at the beginning of a row. Use the **Home** toolbar button or menu item to return to the table view.

You can jump to a new location in the table view. Right click on a column header, type one or more characters and hit the Enter key. Readerware will look down the column for the first entry that starts with the specified data and position that row at the top of the view. You can do this with any column but normally you would choose the primary sort column to jump to a specific borrower for example.

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## Readerware Loan Client Detail View

The detail view is used to display the full record and you can add, update and delete records. There is a separate detail view for borrowers and for all item types. The item detail view is the same one used in the main products. The borrower detail view is used to maintain your borrowers. As this is the Readerware Loan Client we will focus on the borrower detail view, you probably won't be updating items in the loan client.

The Readerware borrower detail view is used to:

- **Add new borrowers to your database.** Click on the Add Borrower toolbar button. To add based on an existing borrower, first search for it, make your changes and click on the **Add** button.
- **View borrowers in your database.** You can display the detail view from the table view. Click on the green arrow icon on the row you want to display.
- **Edit borrowers in your database.** You can display the detail view from the table view. All fields are editable, make your changes and click on the **Update** button to apply your changes.

To return to the table view, click on the **Borrower Home** toolbar button.

At the bottom of the panel is the button bar:

- **Add** - Add a new borrower to the database.
- **Update** - Update a borrower in the database
- **Delete** - Delete a borrower from the database
- **Clear** - Clear all fields

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# Readerware Loan Client Export Wizard

The Readerware Loan Client export allows you to export the borrowers in your Readerware database to a number of different formats:

- **CSV, (Comma Separated Value)** - This is a standard data interchange format, use it to transfer data to other programs and databases.
- **TAB Delimited** - Another standard data interchange format. You can open a TAB delimited in file in a spreadsheet program like Microsoft Excel. A TAB delimited file provides an easy way to transfer your borrowers to an Excel spreadsheet.

## Exporting

These are the basic steps:

1. Pick the format you want to export to
2. Select the file you want to export to
3. Run Readerware export
4. Check the results

## Format Selection

This is the first page of the Readerware export wizard. The first step is to select which format you want to create the file in. Your choices are:

- CSV, (Comma Separated Value)
- TAB delimited.

## CSV/TAB Delimited Options

When you select the CSV or TAB delimited formats the following options are available:

- Output header line - Include the column header line used to identify the columns contained in the file.
- Enclose fields in double quotes - Readerware will enclose fields in double quotes when necessary. Use this option when you always need the fields enclosed in double quotes.
- Escape new lines - Some other programs cannot import fields containing new lines. Choose this option and Readerware will replace new lines with '\n'.

## File Selection

You need to tell Readerware the destination for the exported data.

Click on the **Browse** button and select the file from the standard selection dialog.

If you check the **Always replace existing file** check box Readerware will automatically overwrite this file if it exists. This is useful if you are doing regular export runs to the same file. If this is not checked, Readerware will display a confirmation dialog before overwriting an existing file.

For TAB delimited and CSV files you can also select the file encoding. This is important if your database contains data in multiple languages. You are exporting data from Readerware and importing into another program. It is important that you select the encoding that the other program is expecting. If there is a mismatch then data may not transfer correctly.

**ANSI** - This is your system encoding and is the default. It will work for databases that contain the system language.

**Unicode (little endian)** - Unicode is a double byte character set and can handle virtually any language and any combination of languages. Little endian is used on Intel systems.

**Unicode (big endian)** - Unicode is a double byte character set and can handle virtually any language and any combination of languages. Big endian is used on other systems like PPC.

**UTF-8** - UTF-8 is a variable width encoding and can handle all characters in the Unicode character set. It has become popular as you don't need to worry about endianness.

In general you should choose either ANSI or UTF-8. If you are exporting your database to another program on the same system ANSI should work fine. If your database contains multiple languages or you are transferring the file to another computer, use UTF-8. But remember the other program must be able to handle the encoding you select, so check their documentation.

## Verification Page

Next up is the verification page. This is your last chance to change your settings prior to running Readerware export. A quick summary of your choices is listed. Click on **Next** if you are ready to go. Click on **Back** if you want to change your choices.

## Export Running Page

When you reach this page, Readerware export is running. You will see a progress bar that will update as Readerware exports the data to the file. Immediately below the progress bar is a **Cancel** button which you can use to interrupt the export.

When the export completes, click on the **Next** button to proceed to the final page of this wizard.

## Export Complete Page

This page displays the overall export statistics:

- **Borrowers Processed** - The number of borrowers written to the export file
- **Errors** - The number of borrowers that could not be written.

When you are done, click the **Finish** button to exit the export wizard.

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## Readerware Loan Client Import Wizard

The Readerware Loan Client can import borrower information from other databases and programs.

Readerware can import:

**CSV or Comma Separated Value files** - These files contain the data for each database column separated by a comma. The first line of the file is a mapping line which allows you to map the data to Readerware database column names.

**TAB Delimited Files** - These are similar to CSV files except that the data is separated by the tab character. Again the first line of the file is a mapping line which allows you to map the data to Readerware database column names.

### Mapping data for import into Readerware

A CSV or TAB delimited file is organized much like a spreadsheet. Each record in the file is a row in the spreadsheet. Each record contains the data for each column in that row.

Here is an example of a CSV file:

```
"BRWR_FNAME","BRWR_LNAME","BRWR_ID"  
"John","Doe","10023"
```

The problem is how does Readerware know what order the columns are in? The mapping line is key to importing data into Readerware. The first row of the file is the mapping line and it identifies which Readerware database columns the data should be imported into. This is a common technique used with CSV and TAB delimited files, your file may already have a mapping line as the first line of the file. or it may just contain the data. You need to open the file using a text editor like Notepad or TextEdit. Look at the first line. If there is a mapping line, you need to change the column names to match the Readerware column names. If it is not there, you need to add the line.

If there are columns in the file you do not want to import into Readerware you can use a column name of "Junk". Any column name that Readerware does not recognize will be skipped.

### Readerware Column Names

Use the following table to build the mapping line.

Readerware Column Names	
Column Name	Contents
<b>BRWR_FNAME</b>	Borrower first name
<b>BRWR_LNAME</b>	Borrower last name
<b>BRWR_ID</b>	Borrower ID
<b>BRWR_STATUS</b>	Borrower status, Active, Inactive or Banned
<b>BRWR_EMAIL</b>	E-Mail address
<b>BRWR_PHONE1</b>	Phone number
<b>BRWR_PHONE2</b>	Phone number
<b>BRWR_FAX</b>	Fax number
<b>BRWR_ORG</b>	Organization
<b>BRWR_ADDR1</b>	Address line 1
<b>BRWR_ADDR2</b>	Address line 2
<b>BRWR_CITY</b>	City
<b>BRWR_STATE</b>	State, province, territory etc.
<b>BRWR_ZIP</b>	Zip or postal code



## Importing

These are the basic steps:

1. Indicate the format of the file you are going to import
2. Select the file
3. Run the Readerware import
4. Check the results

## Format Selection

This is the first page of the Readerware import wizard. The first step is to select which format the file you are importing is in. Your choices are CSV, (Comma Separated Value) or TAB delimited. See above for more information on the file formats.

## Duplicate Handling

By default Readerware adds all the borrowers in the imported file to the database. You can select to replace duplicate borrowers rather than add them.

Readerware uses the Borrower ID field to detect duplicates. If the replace option is checked and the borrower ID already exists in the database, the borrower record is replaced with the imported data.

## File Selection

You need to tell Readerware the name of the file you wish to import and where it is located. Click on the **Browse** button and select the file using the standard file selection dialog.

For TAB delimited and CSV files you can also select the file encoding. You are importing data from another program into Readerware. It is important that Readerware uses the correct encoding when reading the file. If there is a mismatch then data may not transfer correctly.

**Automatic detection** - In most cases Readerware can determine the encoding by examining the file. This is the default selection and you should normally use this and only specify an explicit encoding if there is a problem.

**ANSI** - This is your system encoding and is the default. It will work for databases that contain the system language.

**Unicode (little endian)** - Unicode is a double byte character set and can handle virtually any language and any combination of languages. Little endian is used on Intel systems.

**Unicode (big endian)** - Unicode is a double byte character set and can handle virtually any language and any combination of languages. Big endian is used on other systems like PPC.

**UTF-8** - UTF-8 is a variable width encoding and can handle all characters in the Unicode character set. It has become popular as you don't need to worry about endianness.

In general you should use automatic detection. If Readerware is unable to determine the encoding used, you can select the correct encoding from the list.

## Verification Page

Next up is the verification page. This is your last chance to change your settings prior to running Readerware import. A quick summary of your choices is listed. Click on **Next>** if you are ready to go. Click on **Back** if you want to change your choices.

## Import Running Page

When you reach this page, your Readerware import is running. You will see a progress bar that will update as Readerware imports the data from the file.

When the import completes, click on the **Next** button to proceed to the final page of this wizard.

## Import Completed Page

This page displays the overall import statistics:

- **Borrowers Processed** - The number of borrowers in the imported file
- **Errors** - The number of borrowers that could not be imported.

When you are done, click the **Finish** button to exit the import wizard.

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## Printing a Borrower Report

Readerware lets you print a borrower report that lists all items a borrower has checked out along with the due date and contact information.

### Selecting the borrowers to print

Readerware will print a report for the current search results, selected borrowers or borrowers with active loans. Start by searching your database to list the borrowers you want to print. Now select **File->Print->Borrower report**.

### Printing Reports

#### Select and setup your printer

**Select the items you want to print** - You can print the current search results or selected borrowers or active borrowers, i.e. borrowers with current loans outstanding.

**Setup the page** - You can choose the font, orientation and margins for the report.

Click on the **Print** button to print your borrower report.

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## Printing a Borrower Receipt

Readerware lets you print a borrower receipt that lists all items a borrower has checked out and also identifies overdue items.

The borrower receipt is designed to work with receipt printers and generate a compact listing that you can slip inside an item at checkout. You can configure the Readerware Loan Client so that it automatically prints the receipt at checkout, select the Preferences menu item, then [Loans](#).

If you prefer you can only print the receipt on request or to help with a user query. Select the **File->Print->Borrower receipt** menu item.

## Selecting the borrowers to print

Readerware will print a receipt for the currently selected borrowers. Start by searching your database to list the borrowers you want to print. Now select **File->Print->Borrower receipt**.

## Printing Receipts

### Select and setup your printer

**Setup the page** - You can choose the font and margins for the receipt.

**Optional message** - You can optionally include a few lines of text to be displayed at the bottom of each receipt. You could include the name of your library, maybe a website or phone number etc.

Click on the **Print** button to print your borrower receipt.

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## Printing an Overdue Report

Readerware lets you print a list of overdue items organized by borrower. It will include the borrower contact information and a list of their overdue items.

### Printing Reports

#### Select and setup your printer

**Setup the page** - You can choose the font, orientation and margins for the report.

Click on the **Print** button to print your overdue report.

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## Printing Barcodes

Readerware lets you print borrower ID barcodes from your database. Use borrower ID barcodes to identify your borrowers as they check books in and out.

### Selecting the borrowers to print

Readerware will print ID barcodes for the current search results or selected borrowers. Start by searching your database to list the borrowers you want to print. Now select **File->Print->Borrower ID barcodes**.

### Printing Barcodes

**Select and setup your printer** - You can print barcodes on any ink jet or laser printer using label sheets. Readerware also supports Dymo LabelWriter label printers which take label rolls.

**Select the items you want to print** - You can print the current search results or selected items.

**Choose your label stock from the list** - Readerware supports Avery 5160/8160 label sheets on any ink jet or laser printer. If you have a Dymo LabelWriter printer select either the 30252 address labels or 1738595 barcode labels. The address labels normally work best, they are easier to find in stores and are bigger. They can hold both the barcode and additional text. The Dymo barcode labels are smaller and have room for a barcode only.

**Add a line of text to your label** - You can optionally include the borrower name that will be output below the barcode.

Click on the **Print** button to print your barcode labels.

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## Printing a Borrower List

Readerware lets you print a list of your borrowers. This is a simple spreadsheet like report of the borrowers and borrower columns displayed on your screen.

You can select your printer, the page setup and appearance for the report.

Click on the **Print** button to print your borrower list.

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## General Preferences

Readerware General Preferences are used to configure basic options such as the user interface, startup, logging etc.

### Look and Feel Preferences

Readerware supports multiple "look and feel" implementations. The choices available will depend on the platform you are using, Windows, Macintosh etc. The look and feel determines how components such as buttons and list boxes etc. look and behave. It also controls how a component reacts to mouse and keyboard input.

If the **Show tooltips** option is checked, Readerware will display tooltips for buttons etc.

If the **Include images on menus** option is checked, Readerware will include icons for many menu bar items.

### Browser Preferences

The browser preferences determine how Readerware launches your browser.

Readerware will normally find your default browser automatically. If the **Let Readerware find your browser automatically** option is turned on, Readerware will then determine the location of your browser from the operating system. If for some reason this does not work or if you have multiple browsers installed and want Readerware to use a specific browser, clear this option and select the browser

### Media Player Preferences

The media player preferences determine how Readerware launches your media player.

Readerware will normally find your default media player automatically. If the **Let Readerware find your media player automatically** option is turned on, Readerware will then determine the location of your media player from the operating system. If for some reason this does not work or if you have multiple media players installed and want Readerware to use a specific program, clear this option and select the media player.

### Logging Preferences

The logging options determine when Readerware will create log files.

When the **Enable user logging** option is checked, operations such as [auto-catalog](#), [import](#) etc. will produce a log file. Click on the **View Log** button when the operation completes to see the log.

When the **Enable Readerware logging** option is checked, Readerware will create a full session log to assist in problem resolution. This should only be turned on at the request of Readerware Support as it can impact performance.

### Startup Preferences

These options control what operations Readerware performs as it starts.

If the **Show tip of the day** option is checked, Readerware will display a tip window with help on commonly used features of the program. A different tip is displayed each time you start Readerware. You can page through the tips and close the window when you are done. After you have become familiar with Readerware, you can turn this option off.

If the **Show splash screen** option is checked, Readerware will display a progress window as it starts.

If the **Start in Edit Mode** option is checked, Readerware will start the program in edit mode, i.e. you can edit cells in the [table view](#). If not checked Readerware is started in navigation mode and you can click on links to refine the search results.

If the **Start in Return Mode** option is checked in the Readerware Loan Client, it will start the program in return mode, If not checked the Readerware Loan Client is started in loan mode.



## Exit Preferences

These preferences control which operations Readerware performs at exit.

When Readerware is run for the first time, it displays the main window in a default position and at a size that will fit on a basic screen. You can resize and move the window to meet your needs.

When the **Remember size & position** option is set, Readerware will remember the size and position of each window when you close the application and restore them next time you start the application. There are two basic ways to use this feature:

- You can leave **Remember size & position** on and always have your windows open at the location you left them when you last closed Readerware.
- Establish a new default position and size and select the **Edit->Save Window Positions** menu item and turn this option off. Readerware will then open windows at your default location and size rather than the last used location and size.

When the **Prompt for backup if database changed** option is set, Readerware will display a backup reminder dialog whenever you close the program after making changes to the database. If you close Readerware without making any database changes, Readerware closes as normal. The backup reminder dialog will give you a chance to backup your Readerware database and safeguard your data. If you turn this option off, remember to backup your database regularly by selecting the **File->Backup Database** menu item.

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## Toolbar Preferences

Use this panel to change how toolbars are displayed.

### Display options

You can choose to display toolbars with icons and labels, icons only or labels only.

The default is to display both icons and labels. Once you are familiar with the toolbar you can turn off the labels to reduce the size and clutter.

### Button tooltips

If checked Readerware will display a popup window when you hold the mouse over a toolbar button. If clear no tooltips are displayed.

The tooltip will display a more detailed description of what the button does. A good combination is to turn off labels and turn on tooltips. You have a smaller toolbar and can display the tooltip if you ever forget what a button does.

### Icon sizes

You can display the toolbar icons in the following sizes:

Small	24 pixels
Medium	32 pixels
Large	48 pixels

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## Update Preferences

Readerware can check for product updates at regular intervals. Using this preferences panel you can turn the update check on and off, set the interval and manually check for updates.

### Check for updates automatically

If checked Readerware will check for updates at the specified interval. If cleared Readerware will never check for updates.

If update checking is turned on you can set the interval in days. If you set the interval to seven days, Readerware will next check for updates in seven days time and every seven days after that.

We do recommend that you check for updates regularly.

### Check Now

You can check for updates at any time by clicking on the **Check Now** button.

If a new version is available Readerware will display the latest version number and enable the **Go to Download Page** button. This will launch your browser and take you to the Readerware web site where you can download the latest version.

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## Table View Preferences

This panel is used to change table view preferences.

### Display Preferences

#### Use system row background color

If checked Readerware will query the operating system for the table row background color. If cleared Readerware will use a white row background.

#### Alternate row background color

Readerware can display alternate row background colors, i.e. even numbered rows in one color, odd numbered rows in another color. If checked Readerware will display alternating row background colors. If cleared Readerware will display all rows with the standard background color.

This option is on by default on Mac OS X, it is off by default on all other platforms.

#### Display single result in detail view

When a search returns a single result you have the option of displaying this item in the table view as a single row or in the detail view, just as if you had selected the detail view from the table.

If checked Readerware will display a single result in the detail view. If cleared Readerware will display it in the table view.

#### Highlight links in table

When in navigation mode Readerware can highlight links in the table similar to a browser. In Readerware you can click on a link to refine the search results, i.e. click on an author link to display all books by that author.

If checked Readerware will highlight links. If cleared Readerware will not highlight links but the mouse pointer will still change as it goes over a link and the link will still function.

### Sort Preferences

#### Case sensitive

Readerware searches are normally case insensitive. An example of a case insensitive sort is:

Smith, jane  
Smith, John  
Smith, joseph

If you check the **Case sensitive** box, the same search results would be displayed in the following sequence:

Smith, John  
Smith, jane  
Smith, joseph

#### Ignore initial articles

If the **Ignore initial articles** box is checked Readerware will ignore articles of speech at the start of a field, (A, An and The). For example:

A Murder in Mayfair  
The Murder Room

Murder Scholastic  
A Murder Too Many

If the **Ignore initial articles** box is cleared, the same titles will be sorted in the following sequence:

A Murder in Mayfair  
A Murder Too Many  
Murder Scholastic  
The Murder Room

Readerware can also switch the titles for you. If you prefer to format the title as Murder Room, The use the Readerware [Bulk Editor](#) to reformat the title.

### Strict alphabetical title sort

If the **Strict alphabetical title sort** box is checked, articles of speech found anywhere in the title field are ignored, (A, An and The). Spacing and punctuation are ignored, the title is sorted in strict letter by letter sequence. For example:

The Harder They Come  
Hard Feelings

All spacing is eliminated and e comes before f so the titles will be listed in the above order.

If the **Strict alphabetical title sort** box is cleared, the titles would be listed in the following sequence:

Hard Feelings  
The Harder They Come

This assumes that the **Ignore initial articles** box is checked.

This option is only used when sorting by title.

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## Search List Preferences

The Readerware Loan Client includes two search bars, a borrower search bar and an item search bar.

You can customize both search bars. You can show and hide items and change the order. Hide the searches you never use, move the searches you use all the time to the top of the list.

The first item in each search bar is the default search. You should set the default search to match how you normally search for items. For example, if you normally search for borrowers by scanning a barcode, you should set the default search to Borrower ID, i.e. put the Borrower ID search at the top of the list.

### Search List

Searches displayed with a green check mark are included in the search bar, those displayed with a red X are hidden. Double-click on an entry to toggle its state.

To change the order of a search entry in the list select it and use the arrow keys to move it up or down.

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## Contributor Preferences

Use this panel to control how contributors like Author and Artist are displayed, sorted and searched.

### Contributor Name Display

Readerware maintains the name of each contributor in two formats, one for display purposes and one for sorting. You can edit either one in the contributor dialog. By separating the display and sorting of names you have a lot of options to control how names are displayed and sorted.

You can control how Readerware uses these names by choosing one of the following options. Assume the display name is **Agatha Christie** and the sort name is **Christie, Agatha**.

- **Use display name only** - The name is displayed as **Agatha Christie** and is sorted under **A**.
- **Use sort name only** - The name is displayed as **Christie, Agatha** and is sorted under **C**.
- **Use display and sort names** - The name is displayed as **Agatha Christie** and is sorted under **C**.

### Search Options

Normally when you select a contributor search, Readerware sets the operator to "is" and Readerware looks for an exact match. You can change this so that Readerware sets the operator to "contains".

For example, if you search for albums by selecting **Carole King** from the list, Readerware returns a list of albums where she is the only artist.

If you do a contains search, Readerware will return albums by **Carole King, Carole King & James Taylor** etc.

If the **Force a "contains" search** option is checked, Readerware will set the "contains" operator automatically whenever you select a contributor search.

Normally when you use type ahead to select a contributor, Readerware looks for an exact match. i.e. if the contributor name contains accented characters you must type that character to match.

You can also tell Readerware to strip accents in type ahead. Now if you enter "Sine", Readerware might select "Sinéad O'Connor" for example.

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## Font Preferences

Use this panel to change the fonts Readerware uses for the different views.

### Font options

Start by selecting the User Interface Component you want to change the font for:

- Table View
- Tree View
- Fish Eye View
- Thumbnail View (Popup)
- Detail View
- Toolbars
- Menus

### Font Settings

You can select font face name, the style and the size of the font:

- Face Name - Select the desired font from the list. All your installed fonts are displayed.
- Style - Choose from Plain, **Bold**, *Italic* and ***Bold Italic***.
- Size - The desired point size, you can select from the list or enter the point size.

A sample of the selected font is displayed.

### Buttons

To restore the default font choices, click on **Restore Default Fonts**.

To save your changes click on **OK**. To leave preferences without saving your changes click on **Cancel**.

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# Hotkey Preferences

Use this panel to assign a Readerware function to any of the 12 function keys.

## Hotkey Selection

This preferences panel contains a two column table that lists all 12 keyboard function keys and the Readerware function assigned to that key. You can assign a Readerware function like auto-catalog or printing reports. Select the function from the drop down list.

## The Button Panel

Once you have made your changes, click on **OK** to save them and have them take effect. Click on **Cancel** to discard your changes.

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## Proxy Preferences

The Readerware Proxy Preferences tab is used when you access the internet through a proxy server. You specify the name and port of the proxy server. See your system administrator if you need help with proxy settings.

**HTTP Host** - Enter the name of the proxy server host used for normal HTTP access.

**HTTP Port** - Enter the port number of the proxy server host used for normal HTTP access.

**Security Host** - Enter the name of the proxy server host used for secure HTTPS access.

**Security Port** - Enter the port number of the proxy server host used for secure HTTPS access.

### The Button Panel

Once you have made your changes, click on **OK** to save them and have them take effect. Click on **Cancel** to discard your changes. Note you only have to click on **OK** when you have finished all your changes, you can move between tabs and only click **OK** when you are done. This will close the Readerware preferences dialog.

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## Loan Preferences

Use this panel to maintain loan related preferences.

### Loan Defaults

**Default Loan Period (in days)** - When you check out an item, the loan tracker sets the default return date. This is specified as the number of days, the default is 7 days.

**Print receipts at checkout** - When this option is checked the Readerware Loan Client will automatically print out a receipt when you check items out. The borrower receipt is designed to be used with receipt printers and will produce a compact receipt that you can slip into the item at checkout. If this option is off Readerware will not automatically print a receipt but you can always print one on request by selecting the **File->Print->Borrower receipt** menu item.

Before turning on the automatic receipt option, you should manually [print](#) some receipts to set up the print options.

### Loan Search Mode

When you check items out to a borrower, you can check them out one at a time or batch all items and check out once per borrower.

When batch mode is off, every time you search for an item it replaces the current search results and you can check each item out separately.

When the batch mode option is checked, every time you search for an item it is added to the search results. When all items are displayed you can complete the loan and all items will be checked out.

### Loan Statistics

Readerware can optionally track the number of times an item has been loaned out and the last loan date.

This information can help you decide which items are popular and which can be removed from your library.

If you do not need to track loan statistics, you can turn this option off.

### Database Searches

Normally Readerware displays loan information only when you use a Loan search. Loan searches return loans, other searches return items. For example suppose you have 5 copies of an item with 3 copies on loan. If you search for items on loan, Readerware will return this item 3 times with the appropriate loan information for each copy. A normal search will just return the item once so it is not possible to report accurate loan information.

There are times though when it is useful to have basic loan information when running a normal search. You can request that Readerware always include loan information by checking the **Always return loan information** checkbox. Readerware will now include information from the first loan in all searches.

If you have entered each copy of an item separately in the database, this will enable you to determine at a glance which titles are available and which are out. If you have entered multiple copies into the database once and set the copies count, then you will need to drill down into any item that is out on loan to determine whether or not copies are still available. Select the **Edit->Check In/Out** menu item.

### Dialog preferences

Readerware can display a confirmation dialog whenever an item is loaned out or returned or when a borrower is added or updated. You can turn these dialogs on or off.



## Readerware Client/Server Edition

Readerware Client/Server edition is designed to allow multiple users to connect to a central database. It can be used on home networks to manage personal collections. It can also be used in libraries, churches, schools and enterprise locations to catalog and manage a library.

### Installing the Readerware Server

The Readerware Server is included in all distributions. Installation is a little different on each platform. We recommend that you install the full Readerware distribution on the server machine, not just the Readerware server itself. As you configure the server it will be much easier to test your setup if you can run Readerware on the same machine as the server. Also when you are running Readerware and the server on the same machine, firewall software is not usually an issue. If you can run Readerware in client/server mode on the same machine as the server but are unable to connect from another machine, then chances are it is a firewall issue. You may also need the Readerware client programs to create or migrate your database.

Before you start the server you must create your Readerware databases on the server machine.

If this is a new installation you can create a new empty database using the normal Readerware program, select the **File->New Database menu item**.

If you have an existing database on another machine you can use [backup & restore](#) to transfer it to the server machine.

### Installing the Readerware Server on Windows

We recommend using the Windows Web Installer when installing Readerware on your server machine. This will ensure that the best version of Readerware is installed on your machine, i.e. the 64bit version of Readerware on a 64bit machine.

We recommend that you do a full install on your Windows server machine, install the full product not just the Readerware server. This will help you when setting up your Readerware server. As you go through the installer look for the Desktop Shortcuts screen. You might want to add a desktop shortcut for the RWServer Config utility as you will be using it a lot on the server machine.

On Windows the Readerware Server is run as a Windows service. This means that the Readerware server can be started with the machine and it will always be available. You don't have to manually start the server first.

To configure the Readerware server as a Window service, start the **RWServer Config** utility. Double-Click on the RWServer Config desktop shortcut or select it from the Windows Start menu. Select Start->All Programs->Readerware 4->RWServer Config.

RWServer Config requires administrator rights so Windows should prompt you to approve the program before it is launched. If RWServer Config is not run as an administrator, you will not be able to install the Readerware server as a Windows service.

Select the **Service->Install RWServer Service** menu item, this will install the Readerware server as a Windows service that will be started automatically every time you start your computer. You only need to install the Readerware server as a service the first time you install it. You do not have to do this every time you upgrade Readerware. You can also use the **Service** menu to check the status of the Readerware server, stop and start the server etc.

Once installed, another way to stop and start the server is by using the Windows Control Panel, (Windows 7) or Settings, (Windows 10), search for **Services**. The Windows Services settings can also be used to change the Readerware server properties. Locate RWServer in the list and double click on it to open the properties dialog. There are a couple of settings you might want to change:

**Startup type** - The default setting is Automatic, Windows will start the Readerware Server as Windows starts. You can change this to Automatic (Delayed Start). Windows will still start the Readerware Server automatically but not until Windows is fully launched. Choose this option if you need to have other processes start before the Readerware Server. For example you might have your Readerware database on an encrypted drive. If started right away the drive may not be available. Using the delayed start option gives you a chance to load the encrypted drive first.

**Log on as** - By default the Readerware server runs as a local system account. This normally works fine unless you have your database stored in a folder owned by a particular user. In this case the system account may be denied access to the database. You can fix this by providing the appropriate log on credentials and Windows will start the

Readerware Server under that account.

**Important note for Windows 10 users:** It is strongly recommended that you use the Automatic (Delayed Start) startup type on Windows 10. Windows 10 is upgraded automatically by Microsoft and the upgrade process can involve several system restarts. By using the delayed start option, the Readerware Server is not constantly being started and stopped during the upgrade process which can cause issues. The Readerware server will still be automatically restarted once the upgrade is complete.

Once you have installed the Readerware server as a Window service, you can continue with the normal [setup](#).

## Installing the Readerware Server on Linux

You can just install Readerware on your Linux server machine and run the Readerware server by launching the RWServer application. However we recommend that you take the time to set up the Readerware Server as a Linux systemd service. That way the Readerware server will be started automatically when the machine starts.

Setting up the Readerware server as a systemd service is a one time thing, you do not need to repeat this every time you upgrade Readerware. Here are the steps you need to follow:

Create a Readerware user - You should create a new user for the Readerware server. The server will then be run under this ID. We recommend adding a new standard user called "rware". If you cannot use this name, you may pick another and update the `rwserver.service` file to point to the correct user.

Readerware provides the systemd `rwserver.service` file as part of the standard distribution. It is located in the Readerware installation folder. By default Readerware is installed in `"/opt/readerware4"`. You should open this file in a text editor and check the settings. If you are using a different user, you should change `"user=rware"` to point to your Readerware user name. If you installed Readerware in another location, you should change the `"ExecStart=/opt/readerware4/rwserver.sh"` line to point to your installation. When ready you should copy this file to the systemd folder, normally `"/lib/systemd/system"`.

After copying the service file to the systemd folder issue the following command to enable the `rwserver` service and have it started automatically when the system starts:

```
systemctl enable rwserver
```

Now whenever you start your system the Readerware server will be started automatically. If you ever want to change this behavior use the `disable` command.

To start the Readerware server manually use the following command:

```
systemctl start rwserver
```

To stop the Readerware server manually use the `stop` command.

The full Readerware server log is written to the `Documents/Readerware/Logs` folder of the user the server is running under. By default that is `rware` i.e. `/home/rware/Documents/Readerware/Logs/rwserver.log`.

You can also use the standard systemd journal service to view the Readerware server log. For example:

```
journalctl _SYSTEMD_UNIT=rwserver
```

**Important:** When running the RWServer Config utility to configure the Readerware server, you must first login as the Readerware user you created above. This ensures that the server configuration files are saved in the correct location. You can also create your databases under this user.

Once you have installed the Readerware server with systemd, you can continue with the normal [setup](#).

## Installing the Readerware Server on macOS

You can just install Readerware on your Mac server machine and run the Readerware server by launching the RWServer application. However we recommend that you take the time to set up the Readerware Server as a macOS launchd daemon. That way the Readerware server will be started automatically when the machine starts.

Setting up the Readerware server as a launchd daemon is a one time thing, you do not need to repeat this every time you upgrade Readerware. Here are the steps you need to follow:

Create a Readerware user - You should create a new user for the Readerware server. The server will then be run under this ID. We recommend adding a new standard user called "rware". You should then login to this account and create your Readerware databases. If you have existing databases you can use [backup & restore](#) to transfer them to the rware account. If you cannot use this name or would prefer not to relocate your databases, you may pick another user and update the `com.readerware.rwserver.plist` file to point to the correct user.

Readerware provides the launchd plist file as part of the standard distribution. It is located in the Readerware Client/Server disk image. It is called `com.readerware.rwserver.plist`. You should open this file in a text editor and check the settings. If you are using a different user, you should change "`<string>rware</string>`" to point to your Readerware user name. The RWServer application is normally installed in your Applications folder. If you installed it in another location, you should change the "`<string>/Applications/RWServer 4.app/Contents/MacOS/JavaAppLauncher</string>`" line to point to your installation. When ready you should copy this file to the launchd daemon folder, normally `/Library/LaunchDaemons`. You can simply drag and drop this file to the launchd daemon folder, you will need to authenticate the operation.

When you reboot your Mac, the Readerware server will be started automatically. As you test the server configuration you can manually start the server by double-clicking on the RWServer 4 application. You can use the RWServer Config utility to restart or stop the Readerware server.

The full Readerware server log is written to the `Documents/Readerware/Logs` folder of the user the server is running under. By default that is rware i.e. `/Users/rware/Documents/Readerware/Logs/rwserver.log`.

**Important:** When running the RWServer Config utility to configure the Readerware server, you must first login as the Readerware user you created above. This ensures that the server configuration files are saved in the correct location. You should also create your databases under this user.

Once you have installed the Readerware server with launchd, you can continue with the normal [setup](#).

### Installing the Readerware Server on macOS Catalina or better

You can just install Readerware on your Mac server machine and run the Readerware server by launching the RWServer application or setting it up as a login item. However we recommend that you take the time to set up the Readerware Server as a macOS launchd agent. That way the Readerware server will be started automatically when the machine starts.

Setting up the Readerware server as a launchd agent is a one time thing, you do not need to repeat this every time you upgrade Readerware. Here are the steps you need to follow:

The Readerware Server will run under the logged in user, so you should use the normal user that you will log into on the server machine. You should then login to this account and create your Readerware databases. If you have existing databases you can use [backup & restore](#) to transfer them to your user account.

Readerware provides the launchd plist file as part of the standard distribution. It is located in the Readerware Client/Server disk image. It is called `com.readerware.rwserver.plist`. You should open this file in a text editor and check the settings. The RWServer application is normally installed in your Applications folder. If you installed it in another location, you should change all references to the application location to your new location. When ready you should copy this file to the launchd agents folder, normally `/Library/LaunchAgents`. You can simply drag and drop this file to the launchd agents folder, you will need to authenticate the operation.

**Important:** In earlier versions of Readerware we told you to store the "com.readerware.rwserver.plist" file in your `/Library/LaunchDaemons` folder. This was the wrong location, please delete the file from LaunchDaemons and copy the new version included in this distribution to your `/Library/LaunchAgents` folder.

When you reboot your Mac, the Readerware server will be started automatically. As you test the server configuration you can manually start the server by double-clicking on the RWServer 4 application. You can use the RWServer Config utility to restart or stop the Readerware server.

The full Readerware server log is written to the `Documents/Readerware/Logs` folder of the user the server is running under.

As the Readerware server is started two files are written to the `/tmp` folder:

com.readerware.rwserver.out  
com.readerware.rwserver.err

If the server does not start you can check these files to see what the problem is.

Once you have installed the Readerware server with launchd, you can continue with the normal [setup](#).

## Running Readerware in Client/Server Mode

In a Readerware client/server configuration you run the Readerware server on one machine. Typically the database is also on that machine. The Readerware server opens the database and provides database access to the Readerware client programs, including the Readerware Loan Client. It can also provide database access to mobile devices.

The Readerware server can run on any platform, Windows, Linux or macOS. It does not need a dedicated server, it will run in the background on any machine.

You can run the Readerware client programs on the same machine as the server as well as other machines on your network. You configure Readerware to connect to the Readerware server rather than open the database directly. That way multiple users can connect to the same central database.

You can have any mix of client machines, Windows, Linux and macOS users can all connect to the same Readerware server, regardless of what platform the server is running on.

You can publish your database in read only, checkout or full access mode. Selected users can be given full access. So for example you could publish your database in checkout mode so that all users can browse the database and check items in and out. However they will not be allowed to make any other changes to the database. Selected users can be given full access so that they can add new items and maintain the database.

## Configuring the Readerware Server

Before you can run Readerware in client/server mode, you must configure the Readerware server. For example you must tell the server where the databases are located.

The Readerware server itself is what is known as a daemon task. It runs quietly in the background, it does not display any windows or interact with the user in anyway. This means that you can run the server automatically as the machine starts, and this is typically the way you run the Readerware server.

You configure the Readerware server using the **RWServer Config** utility. This is a typical graphical application and you make selections to configure the Readerware server. RWServer Config then writes out the configuration file which is used by the Readerware server.

The program presents a tab interface, click on the appropriate tab to configure that component of the Readerware server. There are three basic tab types. The Ports tab is where you define what network ports the Readerware server should use. There are three database tabs, one for each of the three databases, books, music and video. These tabs are where you define the databases the Readerware server should use, the access mode etc. The final three tabs are the mobile tabs, again one for each of the three databases. On these tabs you define whether or not mobile support should be enabled, which database columns should be transferred to Readerware Mobile etc.

### The Ports Tab

The Readerware server users three TCP/IP ports.

The control port is used by the Readerware clients to request access to the server. The default control port is 9010.

The data port is used by the Readerware server to provide database access to the Readerware client programs. The default data port is 9001.

The mobile port is used by the Readerware server to provide mobile sync support to Readerware Mobile devices. The default mobile port is 9002.

It is strongly recommended that you use the default ports. However only one program can access a given port at a time. So



there could be a problem if you have another program running on your server machine that is also trying to use one of these 3 ports. That is why you can change them if needed. If you do change a port, you must change it on both ends, i.e. you must change it in RWServer Config and in the Readerware client programs. By default the Readerware client programs use the same control port, that is why we recommend you use the default ports unless there is a port conflict.

The Readerware server will open these three ports for inbound connections. It will then listen on these ports for incoming messages from Readerware programs. If you are running firewall software on your server machine, you may need to configure it to allow Readerware to open these ports and accept incoming connections.

This is one more important field on the Ports tab. Readerware lists the Hostname and IP address of the server machine. This is the information you will need when connecting to the Readerware server from another machine or a mobile device. For example it might list "My Computer / 192.168.1.110". When connecting to the server from another computer or mobile device it is best to use the Host name, i.e. "My Computer". If for some reason you cannot connect using the Host name, select the IP address instead. i.e. "192.168.1.110 ". The advantage to using the Host name is that it will not change. Depending on your network configuration, the IP address can change.

## The Server Tabs

Each server database is configured separately. You do not have to make all three databases available. If you are only using Readerware for books, then you only need to define the books database.

Click on the appropriate Server tab to configure the database. Start by checking the option to enable this database.

Click on the **Browse** button to select the database. The standard file selection dialog is displayed and you can navigate to your database folder and select the database.

Next you must select the database access mode. The access mode must be set to one of the following:

**Read only** - All users can view the database but cannot make any changes to the database, this includes checking out an item.

**Checkout mode** - All users can view the database and check items in and out. No other updates are permitted.

**Full Access** - All users have full access to the database.

The update password is used in read only and checkout modes. The Readerware client allows users to request update access. The user must provide this password to get full access to the database.

If you have purchased Readerware you must supply your registration name and code to register the server program. If running in evaluation mode, leave these fields blank. The easiest way to register is to copy the contents of your registration e-mail and the click on the **Paste** button. RWServer Config will locate your registration information in the e-mail and insert it into the appropriate fields. Your registration e-mail has more information on how to copy/paste your registration.

There is one final option you need to set when configuring the Readerware server. This is required when using the Readerware Loan Client. The Readerware Loan Client provides a unified interface to all three databases so you can check items in and out using the one program. When using the loan client you have to decide which database should contain the borrowers. All borrowers will be stored in this database. Check the **Store borrowers in this database** option on the one database that you will use for borrowers. When saving the server configuration you will get an error if no database is defined as the borrower database. You will also get an error if multiple databases have this option checked. there should be one and only one borrower database selected.

In earlier versions of the Readerware Loan Client only books were supported. If you have been using the loan client prior to Readerware 4, then you should select the book database as your borrower database. That is where your existing borrowers will have been stored.

Even if you are not using the Readerware Loan Client it is a good idea to select a borrower database. This will eliminate the error message when you save the server configuration.

## The Mobile Tabs

Again mobile support for each database is configured separately. You do not have to enable mobile support for all three

databases. If you are only using Readerware for music, then you only need to activate mobile support for the music database.

Select the appropriate mobile tab. Check the option to enable mobile support for this database.

You can select which database columns should be synced to your mobile device. Columns listed with a green check mark will be transferred to your mobile devices. Columns displayed with a red X will not. Double-Click on a column to toggle the status.

You can optionally define a maximum length for each column. For example the Album Info column can contain a lot of data. It might contain more than you need on your mobile device and by limiting the amount of data transferred you can save space on your mobile device. Select the column in the list and then enter the maximum length you want to transfer.

When transferring images to your mobile devices, Readerware will scale them to an appropriate size. You can set that size in the server configuration but it is recommended that you select the **Use device defaults** option. That way Readerware will scale the images to the appropriate size for each device. For example if you have a phone and tablet, Readerware can send bigger images to the tablet.

## Configuring the Readerware Client

To use Readerware in client/server mode you must select the advanced open dialog option. Select the Preferences menu item, then Database, then Access.

Now when you open a Readerware database by selecting **File->Open Database**, you will see the advanced open dialog. Select the option to connect to a Readerware Server and enter the server name or IP address and the control port. The control port must be the same as the control port set in the server configuration utility.

Readerware will connect to the server and display your database as normal. Readerware remembers the last accessed database and will open it automatically the next time the program is started. So normally you set up Readerware to connect to the server once and Readerware connects to your server each time the program is started.

## Configuring the Readerware Loan Client

Unlike Readerware the Readerware Loan Client can only connect to a Readerware server, it cannot open a Readerware database directly.

When you select the File->Open database menu item, the Database Chooser is displayed. The only option is to Connect to a Readerware Server. Select this option and enter the server name. The Readerware Loan Client will connect to the server and open all the configured databases. The Readerware Loan Client provides a unified view of all databases so that you can checkout books, music and videos with one program.

The Readerware Loan Client remembers the last accessed server and will connect to it automatically the next time the program is started.

## Readerware Server Log File

The Readerware server logs basic activity and errors to a log file. The file is called `rwserver.log` and it will be created in your Documents folder, Readerware->Logs.

If you experience any problems, the answer can normally be found in the log file. This is a plain text file and can be viewed in any text editor.

## Connection problems

If the client cannot connect to the Readerware server it is normally one of the following issues:

**The Readerware server is not running or does not have the appropriate database open.** Check the `rwServer.LOG` file on the server machine to verify that the Readerware server has started normally and that the database is open. If you start the server and open a Readerware and ReaderwareAW database but do not open a ReaderwareVW database, then you will receive an error if you try to connect from a ReaderwareVW client.

**The operating system cannot resolve the server name.** The first thing to check is that the two machines can communicate.

From the remote machine, open a command prompt and enter the following command:

```
ping servername
```

where servername is the name of the machine running the Readerware server. If the ping works, then we know the two machines can communicate. If not there is some sort of networking problem between the two machines. Try using the machine IP address in place of the server name. Readerware will accept either.

**Your Firewall is blocking the server ports.** If the ping works but Readerware is still unable to connect, then it is probably your firewall software blocking the ports Readerware is using.

It is often easier to get started by running the server and client on the same machine. That takes things like firewalls out of the picture. Once you get it running on the same machine, you know the server is configured correctly and you can then try connecting from another machine.

## Database Maintenance

You should perform periodic maintenance on your Readerware server databases.

As you add new items to your server databases, the database will grow in size and should be compacted for better performance and to reduce disk space usage. As your databases stabilize and you are no longer adding a lot of new items, the need to compact the database will be reduced.

Use the RWServer Config utility to compact your databases, select from the **Database** menu. Depending on the size of your database, it may take a while to compact a database. The server will be placed in maintenance mode while the database is compacted. No new connections will be accepted until the operation completes. You can not interrupt the process while the database is being compacted, it must be allowed to complete.

It is a good idea to backup your database before compacting it.

The Compact Database Wizard will guide you through the process. The first screen displays the full path of the database and the current database size. Verify that you are compacting the correct database and click **Next** to start compacting.

When the operation completes the Next button will be enabled. Click **Next** to display the results screen. RWServer Config will display the original size of the database and the new compacted size. This should give a good idea of how often your databases needs to be compacted.

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## Remote Database Connection Dialog

This dialog is displayed when you select **File->Open Database** from the Readerware menu and you have selected the [remote database option](#).

### Instructions

To connect to a Readerware server you need to enter two pieces of information:

**The name of the machine the server is running on.** If you are running the client and server on the same machine, you can enter 'Localhost'. Otherwise you should enter the name or IP address of the machine on which the Readerware server is running. For Example:

**Localhost**

or

**MyServer**

or

**192.168.0.1**

**The location of the remote database images.** This would normally be on a network drive that you have mapped to the Readerware server machine.

### The Button Panel

Once you have entered the information, click on **OK** to connect to the Readerware server. Click on **Cancel** to abort the operation.

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# Database Properties

Select the **File->Properties** menu item to display the Database Properties dialog.

## General Tab

The general tab displays basic information on all connected database:

- **Name** - The name of the database main file. This will include the name of the server and the remote file name.
- **Type** - The type of database. In the Readerware Loan Client this will always be Readerware Server, indicating you are connected to a Readerware server.
- **Location** - The location, the path of your database. This will include the name of the server and the path of the remote database.
- **Date created** - The date the database was created.
- **Access mode** - The current database access mode, Read only, Checkout mode or Full access:
  - **Read only** - You can search and browse the database but you cannot make any updates.
  - **Checkout mode** - You can search and browse the database, you can check items in and out but you cannot make any other changes to the database.
  - **Full access** - You have full access to the database.
- **Driver name** - The driver used to access the database. For a Readerware server database this will be the HSQL Database Engine Driver.
- **Driver version** - The driver version.

## Statistics Tab

The statistics tab displays information about all connected databases and the resources used:

- **Row count** - The number of items in each of your connected databases.
- **Memory used** - The amount of memory currently in use by the Readerware Loan Client.
- **Memory allocated** - The amount of memory currently allocated by the Readerware Loan Client. Memory is allocated as needed.
- **Memory free** - The amount of memory currently allocated but not in use.

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## RWServer Properties File

The easiest way to configure the Readerware server is to use the [RWServer Configuration Utility](#). This will create the `rwserver.properties` file for you in the correct location. You can also configure the server by creating your own `rwserver.properties` file using a text editor.

### Creating the Server Configuration File

The configuration file specifies the databases and modes etc. This file must be called "`rwserver.properties`".

There are four sections to the configuration file. A common section where server properties are specified and three product sections where you specify the product and database information.

The common section can contain the following entries:

```
rw.svr.cp={Control port, default 9010}
rw.svr.dp={Data port, default 9001}
```

The product sections can contain the following entries:

```
rw.svr.ena={Database enabled (true or false)}
rw.svr.rnme={Registration name}
rw.svr.rcode={Registration code}
rw.svr.db={full path to the database}
rw.svr.mde={Database mode: 0=full, 1=checkout, 2=read only}
```

The above examples are configuring Readerware for books. To configure the music version start the keys with `aw`, i.e. `aw.svr.db`. For the video version the keys start with `vw`.

You do not need to start all databases, if you are only running Readerware for books, then you only need to define the `rw.svr` entries.

Note that special characters must be escaped with the backslash character. So to enter a backslash you must enter `\\`.

Example:

```
rw.svr.cp=9010
rw.svr.dp=9001

rw.svr.ena=true
rw.svr.rnme=Readerware User
rw.svr.rcode=RW-XXXX-XXXX-XXXX-XXXX
rw.svr.db=D:\\ReaderwareDB\\Books.rw3\\Books.rw3.data
rw.svr.mde=0
```

### Saving the Server Configuration File

The configuration file must be called "`rwserver.properties`". The location is determined by the operating system.

On Windows the configuration file must be stored in the location pointed to by the `ALLUSERSPROFILE` environment variable. Create a Readerware folder at that location and store the file in there. For example:

```
C:\ProgramData\Readerware\rwserver.properties
```

On Mac OS X the configuration file must be stored in the Application Support folder. Create a Readerware folder at that location and store the file in there. For example:

```
/Library/Application Support/Readerware/rwserver.properties
```

On Linux the configuration file must be stored in your home folder. There should be a .readerware3 folder in there. For example:

```
/home/me/.readerware3/rwserver.properties
```

You can use an alternate location by editing the rwserver.sh script and adding the parameter "-Duser.home=/your/location" after the java command. For Example:

```
java -Duser.home=/your/location ...
```

Readerware will then look for the following file:

```
/your/location/.readerware3/rwserver.properties
```

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