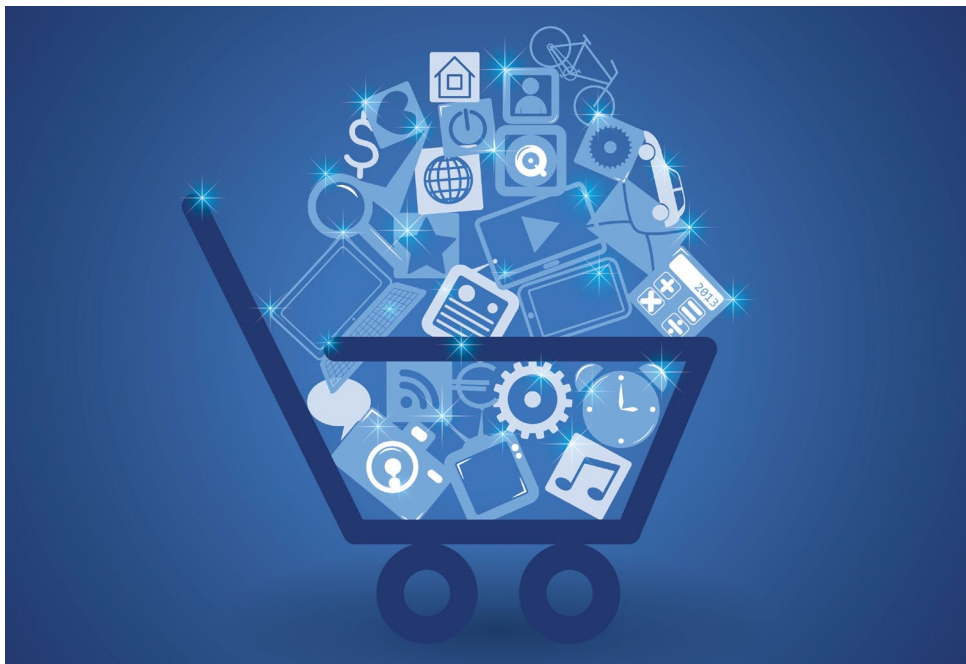


# Roundup

»» Every month we compare tons of stuff so you don't have to!

## Collection managers

Got so many DVDs that you forget what they are? **Marco Fioretti** suggests five programs that will help you keep all your collections in order.



### How we tested...

For the reasons explained in the introduction, we chose only three collection managers for Linux and added two generic database front-ends, all with FOSS licences.

With one exception, all these applications are available as binary packages for Fedora 17, which we used for our testing process, and most other desktop distributions. After installation we created several collections with each program, both of the predefined types and also completely custom ones.

Next, we tested data entry, both from online sources and by hand. We also checked each program's search support, ease of use, customisation, and, finally, their ability to exchange collection data with the other applications.

**C**ollecting stuff is really fun. The trouble is: how do you keep your collection manageable and under control when it begins to grow and take on a life of its own?

How do you, for instance, remember who borrowed that precious first edition book, when you were crazy enough to offer it? How do you keep handy everything you just need to know about each single item – such as its current value on the resale market – if someone asks out of the blue? Could you calculate easily how much your entire collection is worth if you happen to get offered a slot on *Four Rooms*? What if you like to collect a lot of different

**“Should you really make the effort to learn a different program for each collection?”**

things? Should you really make the effort to learn a different program for each collection?

These and similar questions started a new edition of a Roundup that **LXF** ran last in 2009 [**LXF125**, p30] on Linux-compatible, multi-purpose collection managers. This time though, we got a big surprise when we started looking: there aren't enough FOSS apps to fill a Roundup anymore. *Griffith*, *Moll* and *Stuffkeeper* are all still online, but

stuck at versions so old – some at least four years old – that making certain features work on modern distros requires patching the source code.

Eventually, it dawned on us that this revelation could turn out in our favour, because it forced us to propose some alternative solutions that should both work well in some situations, and also help you consider what you really need or use in a collection manager. Let's get started then!

### Our selection

- » Data Crow
- » GCstar
- » Kexi
- » LibreOffice Base
- » Tellico

# Flexibility and customisation

Are they ready to do your bidding?

**N**o matter how complete a software program is there's always something we'd like it to do differently, so what's customisation like for the pick of the programs?

It may seem a paradox, but *Base* and *Kexi* probably are the best choices from this point of view, exactly because they are 'only' generic database interfaces. Since it's up to you to set them up to manage collections, the result can be just what you need.

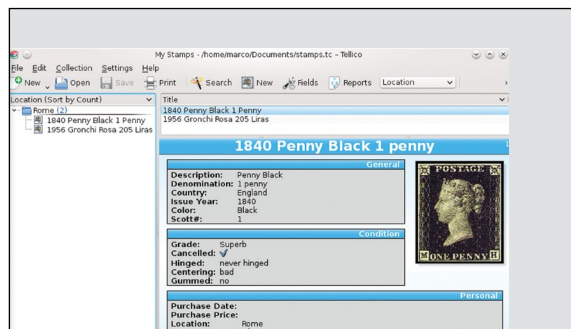
Unlike *Data Crow*, *GCstar* and *Tellico* (from here on called the 'Dedicated Three'), *Base* and *Kexi* can also use many different back-ends, from in-file, single-user databases, such as *HSQL* or *SQLite* to enterprise level, such as *PostgreSQL* or *MySQL*. This makes them great for collections co-maintained by several users. Next, there's the integration with *Calligra* and *LibreOffice*. If you need to insert collection data frequently, or use them as data sources for spreadsheets, then why keep them out of environments born to do that? *Kexi* and *Base* also support a few scripting languages.

Collections present in all the Dedicated Three are Books, Movies/Videos and Music. *Data Crow* adds Images and Software (also in *GCstar*). Both *GCstar* and *Tellico* provide Comic Books, Coins, Stamps, Wines and Videogames. *Tellico* has Bibliographies and Trading Cards, while *GCstar* also manages Board Games, TV Shows Series and Episodes, Periodicals, Mini Vehicles, and Smart Cards.

## Customisation

Our Dedicated Three all let users create their own collection layouts. *Data Crow* has a Media Items module that creates a single meta-collection for your software and multimedia, which can be sorted by category or release date.

In *GCstar*, custom collections without a corresponding, explicitly defined type name store all their definitions and settings in one file. Assigning a type name, instead, will create a new, reusable 'Personal collection model', with a template stored in `/${XDG_DATA_HOME}/gcstar/GCModels/`. In both cases you



» The *Tellico* UI for creating new collection fields is simple, but very powerful, thanks to grouped (derived) variables.

can insert and group fields of several types, such as radio buttons, text strings (with or without history of previously entered values) and lists. Each numeric field can have its own predefined range, increment step and be displayed as a star rating.

*Tellico* has several collection templates available for download. If you want your own custom version of collections that it natively supports (eg Stamps or Wine), you can modify an empty one with the default template instead. This is the only way to let *Tellico* know what type of collection it is, and keep using the standard icons.

## Verdict

**Data Crow**

★★★★★

**GCstar**

★★★★★

**Kexi**

★★★★★

**LibreOffice**

★★★★★

**Base**

★★★★★

**Tellico Music**

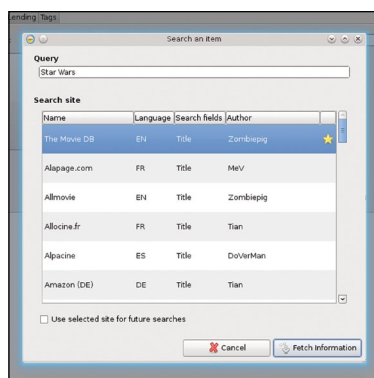
★★★★★

» *Kexi* and *Base* get the top score, but you have to do more work!

# Data entry & online searches

Data access is king when it comes to keeping collections current.

**T**he more a program can get data by itself, either from accessing local files or via the internet, the better. This fact alone may be enough of a reason to use a dedicated application instead of paper or generic database software.



» *GCstar* has the simplest, least intimidating online search interface.

*Base* and *Kexi* can link to external data in theory. In practice, however, at least for managing collections, they are the worst solution for this particular area of interest.

Even when tools, such as the unsupported ones available for movies at [www.imdb.com/interfaces](http://www.imdb.com/interfaces), offer to download data automatically into *Base* and *Kexi*, you will find it's much safer to load the results into your database separately, either by hand or by using custom scripts.

All of our Dedicated Three programs, in comparison, can download data straight from reputable websites: Amazon, IMDB, Sourceforge, MusicBrainz and many other data sources. *GCstar* can either query all the websites in a predefined (but obviously modifiable list), or just head off to one website – you can change the sources whenever you want. Alternatively, you

can alternate between data sources, changing it at every query.

*Tellico* also knows how to download data from PubMed and bibliographic servers compatible with the z39.50 standard for online search and retrieval of information ([www.loc.gov/z3950/agency](http://www.loc.gov/z3950/agency)). Be warned though: *Tellico*'s website says that " *Tellico* is not a full-blown bibliographic reference manager", so it may not be the best choice available for research-related collections. Your mileage may vary.

Of course, not all collectibles give the same choices. There's no online data source for stamps in *Tellico*, for example. In other cases, data entry may even happen without any typing at all. *Data Crow* can read metadata directly from the most popular multimedia formats, and our Dedicated Three are all, more or less, compatible with barcode scanners or webcams.

## Verdict

**Data Crow**

★★★★★

**GCstar**

★★★★★

**Kexi**

★★★★★

**LibreOffice**

★★★★★

**Base**

★★★★★

**Tellico Music**

★★★★★

» *Kexi* and *Base* have no built-in functions of this kind. But *Data Crow* has a host of them to try.

# User interface

Which program offers the most choice, in the simplest way?

The visible part of any collection manager should be simple to use, flexible when it comes to displaying items effectively, and offer as many options as possible to find information both online and from inside your actual collections.

A collection manager's user interface should also give you an easy way to control

how much data you're having to download from the internet, to help you cope with slow connection issues.

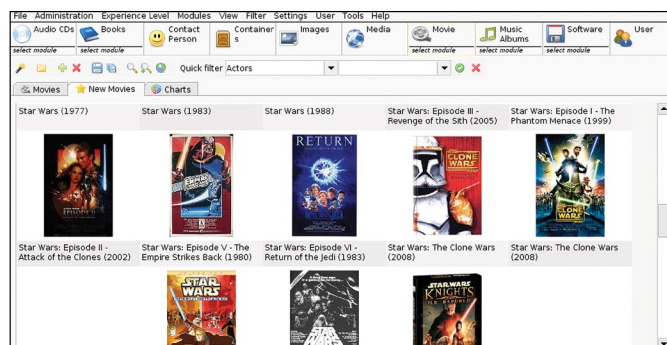
Another important feature, especially if you plan to use the same collection manager on many computers, may be how much choice you have in the way that collections are placed and the Settings files are handled.

Some collection manager programs (the good ones, at least) will also offer the option to temporarily lock a collection in read-only mode. This can be very helpful for people who find that they need to let other less experienced (and possibly younger) users browse shared collections with the same account and copy of the software.

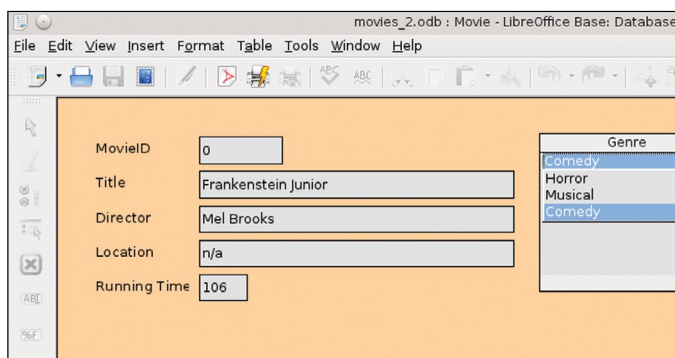
## Data Crow ★★★★★

*Data Crow* runs on any system where Java 1.6 (or higher) is installed (and even as a web server). In fact, this is also the only program in the Roundup that needs a manual, even if it's just a simple installation guide: download the code, unpack it somewhere, adjust the path to the **datacrow.jar** file in the **datacrow.sh** script and make it executable.

*Data Crow* has a skinnable graphic interface, available in English and six other languages, and a clear configuration wizard. You can switch back and forth in any moment between a Beginner and an Expert mode. We suggest staying with the former for a while, with the 'Tip of the Day' pop-up box active, before trying the latter. *Data Crow* is good, but even its Beginner mode is overwhelming. That said, the tagging, web services, backup and restore functions are great.



► *Data Crow* has a special tab for items that still need to be filed.



► Collection management in *Base* starts with the creation of each table and form of the database.

## LibreOffice Base ★★★★★

The only *Base* interface we can really speak about here is the one you will need to create yourself by using the actual collection manager windows. *Base* has wizards to create Tables, Queries, Forms and Reports. The Form Wizard and the Form Design view both offer ways to create entry forms, in a drag-and-drop interface. We found the Form Design is more complex, but much more flexible.

Whatever tool you use, don't forget to plan out what you want it to do before starting. You will have to consider what your database and forms should look like, and take advantage of the *Base* support for grouped elements, which should make your forms much quicker to use. Also remember to associate each field of your forms with a column of the corresponding database column, otherwise bad and very frustrating things will happen.

# Documentation

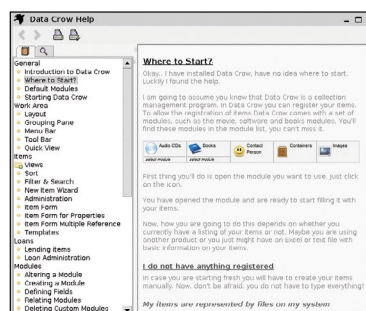
What was the name of that function, again?

Even if it's not specifically about collections, *Base* and *Kexi* both have a lot of documentation, not to mention very large communities. If you have a clear idea of how your collection manager interface should look, any question you may have will find a quick answer online.

As far as the Dedicated Three are concerned, they all come with adequate or very good manuals and other resources. You probably won't need it though, except for special cases such

as for complex searches using regular expressions, or for running an optimising online searches.

From a documentation standpoint, however, *GCStar* is a little behind *Data Crow* and *Tellico*. We say this partly because the manuals of the two other programs are more detailed, but also because they are installed locally. *GCStar's* Help button opens its online wiki in your default browser. Therefore, should you need it when there is no connectivity, you'd be out of luck.



► *Data Crow's* extensive user documentation is included with the app.

## Verdict

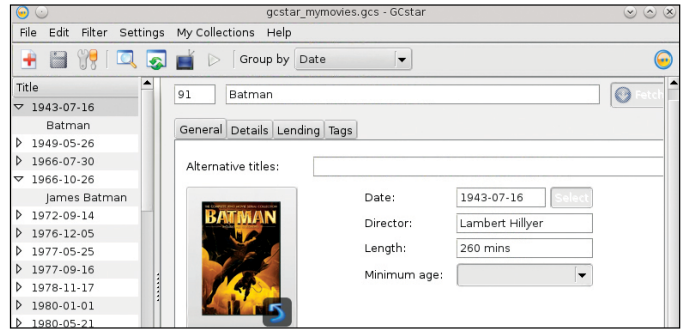
- Data Crow ★★★★★
  - GCStar ★★★★★
  - Kexi ★★★★★
  - LibreOffice Base ★★★★★
  - Tellico Music ★★★★★
- *Base* and *Kexi* score less as each has a lot of documentation, but most of it's not specifically for making collection apps.

**GCstar** ★★★★★

*GCstar* opens with a big warning: "information downloaded from websites is for personal use only and any redistribution is forbidden without explicit authorisation", leaving you wondering why the developers found it necessary to push that (albeit correct) reminder.

Warnings aside, the interface is simple and intuitive, without losing anything important. The Toy Car collection, for example, has 12 predefined fields for photographs from any possible angle, plus a field for notes. You can also lock a collection to prevent involuntary edits and get suggestions of movies to watch or books to read.

There are plenty of filters and configurable search functions that can be combined together. We also like how easy it is to find out why a filter or plugin isn't working: just open the Dependencies list in the Help menu.

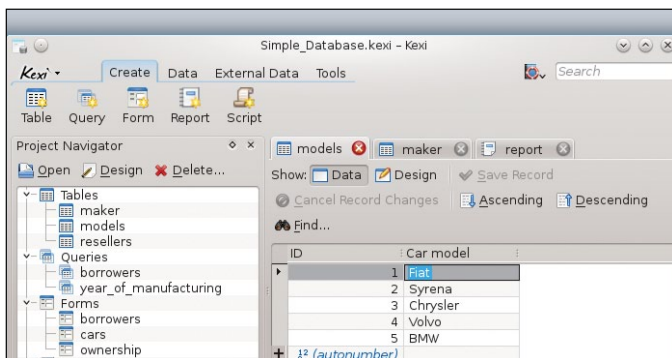


» *GCstar* packs a lot of data in a really clean and simple interface.

**Kexi** ★★★★★

Much of what we said for *Base* also applies to *Kexi*. This multi platform (needs *Fink* on Mac OS X) visual designer for databases lets you create Tables, Queries, Forms, Reports and Scripts without ever leaving the program. *Kexi* has also been defined as "the only multi platform graphical tool for importing data from Microsoft Access databases." Being a part of *Calligra*, *Kexi* enjoys the same theming capabilities, print support and many other features available to all KDE applications.

The Property Editor and, above all, the Project Navigator – which can both be undocked from the main window and docked again whenever you want – make it easier to handle simultaneously many different databases (or in our case, collections). As with *GCstar*, a locked-down User mode is available, to disable all the editing commands and prevent involuntary data corruption.



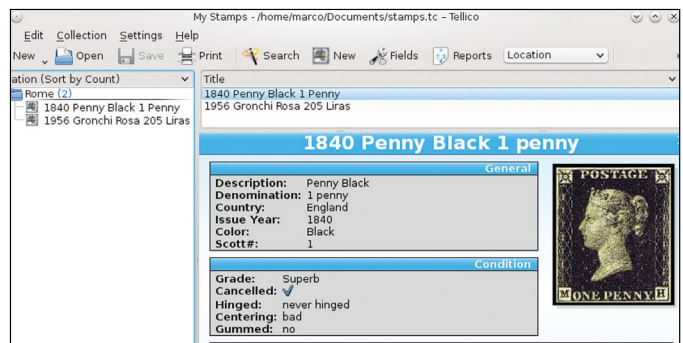
» *Kexi* can manage collections just like you want... if you build it.

**Tellico** ★★★★★

*Tellico* is the official collection manager for KDE. Its main graphic elements are the Group and Column views. The former shows the current collection in a tree-like structure, the latter shows a plain list of the same items. You can group multiple independent fields into a single one, to get more compact views, or sort your items as you want, even if you find the result can be a little confusing initially.

*Tellico's* Search filters support regular expressions, and it's also possible to edit more entries simultaneously. All you do is select the entries you want to edit, and when you click on any entry that has fields that are the same value in all the entries selected it will be editable.

Remember, if your collection is going to have many images you will need to tell *Tellico* that they must not go into the main database file, but in a separate folder, otherwise the software would run much slower.



» The look and feel of *Tellico* is minimalistic, if not bare, but it shows and does everything you really need to see and do.

# Loan features

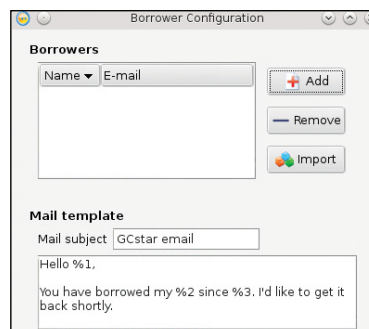
## Who borrowed my Pink Floyd albums?

**V**ery frequently, especially when dealing with many books or DVDs, there's a need to have a clear idea of who borrowed what and when. Friends, generally we've found, have a habit of forgetting to give back your rare editions and often need a gentle, but implacable reminder to return them.

*Base* and *Kexi* can support you in this – if you add the right columns and form fields to your collection databases. The Dedicated Three,

though, all have a panel dedicated to loan management and reminders.

The one in *GCstar* is the most intuitive. It can import contacts lists in LDIF or VCARD format, or from a *Claws Mail* address books. You can also configure the email that will be automatically sent to all forgetful borrowers. *Tellico* can do the same and more, through *KOrganizer*: This can add loan reminders automatically to your default KDE calendar as To-Do items. The *Data Crow's* Loan Administration



» *GCstar* will help your friends bring back borrowed items in a few clicks.

is the most complete and complex of the group. It catalogues borrowers with tags and categories, stores their photographs and exports pending loans with their due dates as *iCalendar* files.

**Verdict**

- Data Crow** ★★★★★
- GCstar** ★★★★★
- Kexi** ★★★★★
- LibreOffice Base** ★★★★★
- Tellico Music** ★★★★★

» All the apps can help a user to manage loans in different ways, but *GCstar* makes the process very easy.

# Reporting features

Summarising what's in my collection and bragging about it.

**G**ood reports make sense of a collection, or simply make it easy to print a list of things you want to sell. From this point of view, the Dedicated Three are more limited than *Kexi* or *Base*, but also easier to use.

In *LibreOffice Base*, reports are preconfigured text documents, dynamically filled with content from your database. Therefore, you have much more formatting options, if you have the need and patience to use them. More advanced *LibreOffice* users may even decorate their collection

reports with charts dynamically generated by *Calc*.

You can create reports with the dialogs of the Report Wizard or by dragging and dropping fields in the *Base* Report Builder. To view a report or refresh its content, click on the Execute Report icon in the toolbar. *Writer* will open the file, showing all the data from the report queries you put in, and you can reorder the results as you want with the Sorting And Grouping dialog.

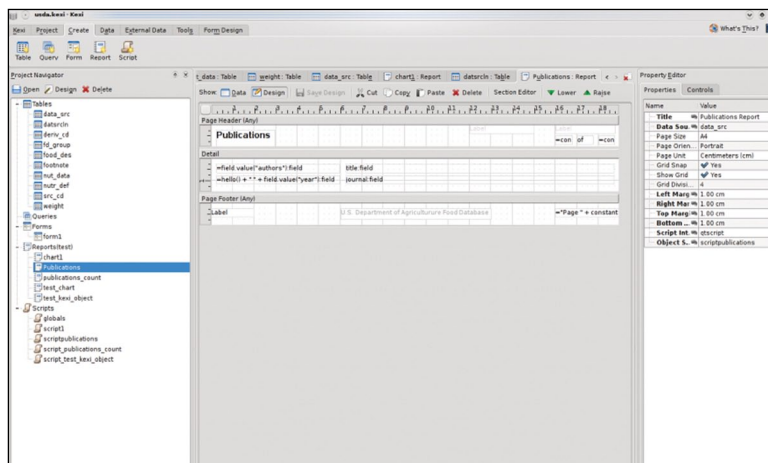
The *Kexi* Report Designer has the same flexibility as *Base* when it comes

to creating queries and grouping results, albeit with less formatting. The program, however, supports many widgets, including one for charts and another that inserts barcodes, corresponding to the content of whatever fields you want to display also in that format.

*Data Crow* has various HTML and PDF basic reports, which may be enough for most users, even if you have to open them in another program to print them. If you want to change the layout or formatting style, however, you need to know XSLT (EXtensible Stylesheet Language Transformations, [www.w3.org/Style/XSL](http://www.w3.org/Style/XSL)). This issue is also present, to an extent, in *GCstar* and *Tellico*, even if the *KDE manager* can download extra templates.

The *Tellico* dialogue for report generation, checks for XSLT templates in the installation path and in **\$KDEHOME/share/apps/tellico/report-templates**.

Besides the actual HTML report, *GCstar* also creates a folder with copies of the corresponding pictures. The HTML code points to that folder, so you have to distribute it together with the file or the resulting reports will look quite ugly. You can also insert JavaScript in the HTML source, to add some basic interactivity to it if you want.



As *Kexi* shows here, general database interfaces are better equipped to build complex reports than specialized collection managers.

**Verdict**

**Data Crow** ★★★★★

**GCstar** ★★★★★

**Kexi** ★★★★★

**LibreOffice Base** ★★★★★

**Tellico Music** ★★★★★

» The Dedicated Three all produce basic reports, but *Data Crow* can also generate several charts and include bar code insertions.

# Interoperability

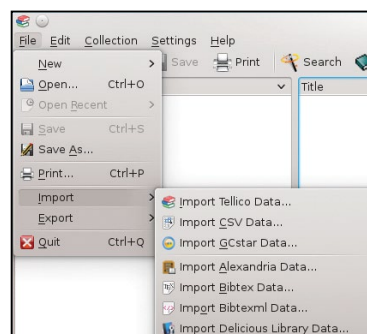
Will my manager play nice with others?

**C**an your manager exchange data with other programs? Can it handle some tasks by itself? Again, thanks to their multi-database support, and the many utilities available on any platform for converting or editing databases, *Base* and *Kexi* are the best choices in this area, but only for expert users.

The *Data Crow* Import Wizard can import items from CSV or XML files, which is done by simply selecting the module (which, depending on the context, is the *Data Crow* term for a collection or collection type) before starting the Import Wizard. Unsurprisingly, the Export Wizard does exactly the same job. You can use it to

share data or whole collections between different *Data Crow* installations. Note that the official preferred format for this job is XML.

*GCstar* can perform import, export and download from the command line without launching the whole graphical interface and that's even from within *Cron* jobs or other shell script. Beside native *GCstar* files, which are used by default, the *GCstar* export plugin supports CSV, HTML, SQL, TAR.GZ, XML (Note: but not necessarily for all collection types, or in both directions) and both the native formats of *Tellico*, which are plain or compressed XML. *GCstar* also provides some import and export templates.



Tellico can read and save collection data in more many, many formats.

In general, anything that is a valid *Tellico* XML file – or can be converted to that format via XSL stylesheets – can be imported into *Tellico*. You may never need something like that, however, because *Tellico* recognises many formats: CSV, Bibtex, Bibtexml, RIS, MODS, CDDB, audio file metadata and exports, CSV, HTML, Bibtex, Bibtexml, ONIX, and PilotDB. Phew!

**Verdict**

**Data Crow** ★★★★★

**GCstar** ★★★★★

**Kexi** ★★★★★

**LibreOffice Base** ★★★★★

**Tellico Music** ★★★★★

» *Tellico* and *GCstar* can read and write each other's data, at least for some collection types, and many more.

## Collection managers

# The verdict

**B**efore even getting started with the actual verdict, let us make one thing clear, lest we start some flame war. Yes, strictly speaking, we should have considered *OpenOffice Base* and *LibreOffice Base* as two separate applications. However, they're still similar enough, at least for the purpose of this Roundup, that we may consider them to be interchangeable.

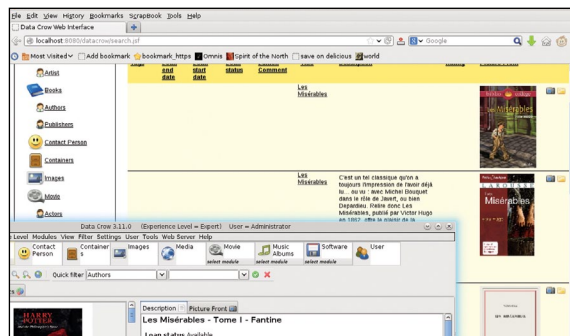
*Base* and *Kexi* produce the best reports. Using either of them to build your own multi-purpose collection manager is a good project that will give you just what you need and leave you with skills you may reuse in many other situations. If this weren't too time consuming for many users, and they both offered ready support for downloading data from the internet, we'd be tempted to declare one of these generic managers the winner.

Before giving our verdict on the Dedicated Three, we do need to clarify that each of the three has a number

of extra features that aren't entirely covered in the Roundup.

Overall, both *Tellico* and *GCstar* are great programs that can be integrated with other parts of any Linux desktop environment (especially *Tellico*) more than a Java application like *Data Crow*. They both can also import and export your collections in many formats, including, rather generously, the native formats of each other!

*Data Crow* does have a steep learning curve, and no matter how many collections you might have, it may be impossible (or completely unnecessary) to use all its numerous features. However, it has tagging, good documentation, and did practically everything we attempted to do with it. Even if you only need half of its features, they're all very customisable (with the exception of reports). Finally



» Want to access your collections from any computer? Just install *Data Crow* on (almost) any web space.

– if you'll forgive us for using a highly abused buzzword – *Data Crow* is the only program in this Roundup that is cloud-ready. Put *Data Crow*, properly configured, on some web space and (as shown in the picture, above), you can manage your collections remotely, with any browser. For this and everything else it offers, *Data Crow* is the winner. **LXF**

**“Data Crow: even if you only need half of its features, they’re all very customisable.”**

**1st****Data Crow** ★★★★★Web: [www.datacrow.net](http://www.datacrow.net) Licence: GPL Version: 3.11.0

» Very, very complete. A great program that's also usable from a browser.

**4th****LibreOffice Base** ★★★☆☆Web: [www.libreoffice.org](http://www.libreoffice.org) Licence: LGPL Version: 3.5.7

» A great foundation for a program, but only if you are willing to build it.

**2nd****Tellico** ★★★★★Web: <http://tellico-project.org> Licence: GPL Version: 2.3.6

» Highly flexible and well integrated with KDE and Linux desktops.

**5th****Kexi** ★★★☆☆Web: [www.kexi-project.org](http://www.kexi-project.org) Licence: GPL Version: 2.6.4» Same verdict as *Base*, for the same reasons.**3rd****GCstar** ★★★★★Web: [www.gcstar.org](http://www.gcstar.org) Licence: GPL Version: 1.6.2» A little less flexible than *Tellico*, but with lots of predefined collections.**Over to you...**Found a gem of a collection management app? Or maybe made one yourself? Email your opinions to [lxf.letters@futurenet.co.uk](mailto:lxf.letters@futurenet.co.uk).

## Also consider...

We've said that one of the main reasons to use a collection management program is to get them downloading and adding data found on the internet. This fact has an obvious, but sometimes overlooked corollary: the best collection manager may not be the one with the look, feel and functions that you like the most. It may be, instead, the one that's better

at talking with the websites that you see as the most complete and reliable as data sources.

Another thing to consider, at least for multimedia objects, is that none of the programs mentioned here are, or aim to become, a real multimedia player. Therefore, be prepared to research how to tell your manager how it should launch your player.

Finally, if you only have one type of collection, it's very likely that there are already FOSS managers specifically designed for that type, or that need some development help. For instance, there's the *Palatina* project for book collectors (<http://palatin.as>), which has been written from scratch to replace the Gnome app *Alexandria*. **LXF**