Data Crow

Version 1.6

http://www.datacrow.net

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1.1. About Data Crow

Data Crow helps you organize your software, music, and movie collections by using internet services (like amazon, imdb, and freedb) and the tag information stored within your files. Why type when you're hooked up to the internet—the information is out there!

There are many programs around which claim to have a nice database to put your music in, and there are other programs which allow you to store your audio CD information—Data Crow has it all under one roof. We think you'll find Data Crow easy to use and a great all-rounder.

Try it!

Contact details:

Information: info@datacrow.net
Support: support@datacrow.net
Website: http://www.datacrow.net

1.2. Starting the application

When Data Crow starts, the splash screen is displayed. After a short while the Connection dialog will appear. You can change the database name or leave it on the default “dc”.

Database name
The default name of the database is “dc”, but you can enter a different name if you want. On each startup, Data Crow will fill in the database name that was used previously.

Data Crow’s integrated HSQL engine can also be run as a database server. The database name should include the name of the machine on which the database server is running (for example: //servermachine). To connect to the database server, enter the address of the server in the database name field when starting up Data Crow (for a server running on the same machine, the address would be “//localhost”).

The server can be started by using the batch file ‘run-HSQL-Server.bat’.

2. The Modules

You can organize different types of software, music, and movie files by using the Data Crow modules.

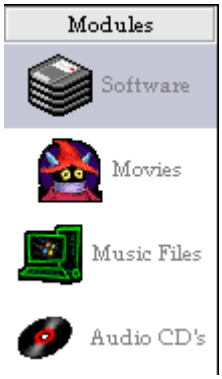
Module	Supported file formats	Online updates	File parsing	Tools (tools menu)
Software	All	Yes (Amazon)	No	Software Import, Categories
Music File	Ogg, flac, mp3, mp4, wav, ape, asf, mpc	No	Yes	Music File import
Audio CD	Any	Yes (FreeDB)	No	Audio CD import
Movie	DivX, Xvid, Mpeg	Yes (Imdb)	Yes	Movie import

3. Main window

The main window has a toolbar, a menu bar, a status bar, a module list and an overview for displaying new or existing items.

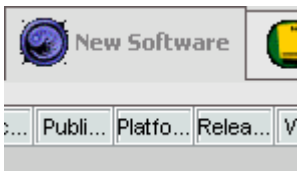
Clicking on the module list brings up a list of modules you can work with. You can switch between modules at any time (even during imports).

Module list
Overview of the available modules. The active module is highlighted



<Item> tab
Existing items can be searched for, updated, or deleted

New <item> tab
Add new items to the database. Show items imported from the internet or extracted from files or CD drives



Block note
Record annotations, remarks, reminders

Menu bar

The menu bar offers links to all the functionality available for the current module. See the next chapter for more information about the menu bar.

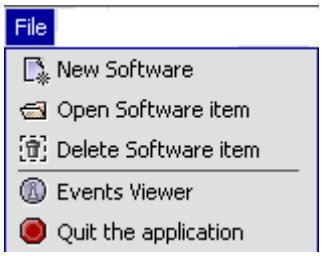
Tool bar

The tool bar offers links to all the functionality available for the current module. It offers the same functionality as the menu bar. Note that you can disable the text labels by right clicking on the toolbar and selecting “toggle labels”.

4. Menu bar

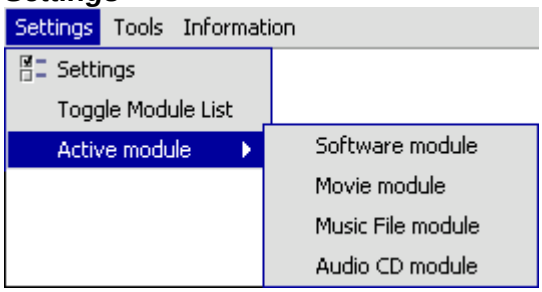
There are four main menus:

File



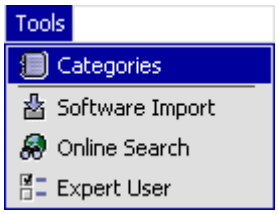
Items can be created, deleted, or opened. You can also view events or quit the application

Settings



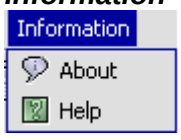
Display and input settings can be changed. The module list (the bar on the left-hand side of the screen) can be made visible or hidden

Tools



The tools available here depend on the module that is active. Some tools, such as "Item import", are common to all modules

Information



Contains a link to the about dialog and to the internal help system.

5. Toolbar

New
Opens the item form for a new item. The new item can be saved after the information has been filled

Open
Opens the selected item

Save
Saves the selected item

Save all
Saves all items which are new or have been modified

Remove / Delete
Remove a new item (not yet saved) or deletes an existing item

Advanced Find
Opens the advanced find to define a search action

Find Again
Searches with the previous, in the advanced find, defined search conditions

Settings
Opens the settings

Import
Opens the import dialog. Allows importing data from a CD or HD

Online Search
Search the web services of Amazon, Imdb and Freedb for more information about an item you want to enter or update

Event Log
Shows system events

Help
Opens the help

About
Extra information on the Data Crow product

6. Tools

6.1. Software categories

Software can be categorized via the “Software type” list box. By default, there are a few categories (a category could be “tool”, “3d shooter”, etc). To add or modify categories, select the “Categories” button from the menu bar and enter new data or update existing categories.

6.2. Online Search

Update an existing or new item with information retrieved from the internet. This is explained in more detailed later on.

6.3. Expert User

The expert user tool consists of two tabs, the system information and tools tab and the SQL tool tab.

6.4. Import

As this application represents items which exist in the real world (like an audio CD) there is need to make contact to this real item. The import allows you to extract information from this real item. Be it an audio or software CD, Data Crow has the means to retrieve information for you. The Import is explained later on (see the index)

7. Settings

The Settings menu allows you to change the general behavior of the application. Display options—such as the background color—or data input options—such as required fields—can be found here. These settings are stored in the "datacrow.properties" file in the Data Crow directory of your installation.

7.1. General settings

Maximum of search results

The maximum amount of items that will be retrieved. The default is a 100 items. Setting a higher number here can impact memory usage if you also specify extensive search conditions.

Check for value uniqueness upon saving

Data Crow will check if the item is unique before it is saved. Uniqueness is determined by the required field values. If the item is not unique it will not be saved and a message will be displayed. This option is enabled by default. We do not recommend turning this option off.

Check for required fields upon saving

Check if all the required fields have been entered. If not, the item is not saved to the database and Data Crow displays a message showing which fields should be filled in before the item can be saved. This option is enabled by default and we do not recommend turning this off because it could cause data inconsistencies. However, we *do* recommend that you define your own required fields (see 8.2).

Ask to close server on exit

When closing the client, Data Crow will ask if the server should be closed as well.

7.2. Required field settings

Required fields can be set for each module. Set the "Required y/n" value to "Yes" in the required fields table if a value for that field must be input before the item can be saved.

When the option "Check for required fields upon saving" is enabled, items are checked for compliance before being saved to the database. The required fields can also be used to check if an item is unique before saving it to the database (see 8.1: "Check for value uniqueness upon saving").

7.3. HTTP Settings

General HTTP settings can be specified here.

HTTP user agent

Data Crow uses this string to identify itself to the web servers it tries to contact. You should not need to change this value (it was originally here for testing purposes). The default value is “Mozilla/4.04 (Windows; I; Win95)”.

Proxy Server port

If you are behind a proxy server, you must specify the proxy server port number. By default, the port number is set to zero (“not present”). Most proxy servers will be set to port “*8088*”.

Proxy Server name

The name of the proxy server must be specified when you are behind a proxy server.

7.4. Background color

The background color is set by moving the slider on the color panel and clicking in the color palette. Don’t forget to press ”Save”—otherwise the selected color will not be saved for the next session!

7.5. Fonts

Select a different font or modify the current font. Changes take effect after restarting Data Crow.

7.6. Table Colors

Change the display colors—from the row selection color to the color of the even and odd rows.

8. Searching the Database (Advanced Find)

You can search items using conditions and search options to filter the results. For searching, the “Advanced find” is used. The advanced find can be started from the toolbar.

8.1. Search conditions

Keywords can be entered in the “Search conditions” area. You can enter more then one value in a field by separating keywords with the ‘%’ sign. For example, the search condition “easy%creator” will retrieve all items which contain “easy” AND “creator”. Note that there are no spaces between the ‘%’ sign and the keywords.

8.2. Search options

Comply with all conditions

Specify if the results must comply with all the search conditions or to each search condition separately.

Example: the following search conditions have been specified
name = test, location = CD1

If the search is executed with the option “And”, the result will contain only the items which contain the name “test” AND the location “CD1”. If the option is set to “OR”, the result will contain all the items which contain the name “test” OR the location “CD1”.

Apply to the full values in the condition only

If this option is enabled the resulting items must comply with the exact search condition. If the option is disabled the search condition is used to see if the field contains the value.

Order by

Orders the results by the selected field

9. Viewing and modifying items

After a search has been performed, the resulted items are displayed in the result table of the “<item>” tab. One row represents one item. Right-clicking on an item opens a sub-menu with further options. Items can be deleted, opened, or updated using a web service. Items can also be directly modified within the table.

Viewing & changing existing items

Once a search has been executed, the results are displayed in the search results table. To clear the results from the table, press the “Clear” button.
An item can be opened either by double-clicking on the item or using the right-click menu. An item is opened in the item form.

The item form

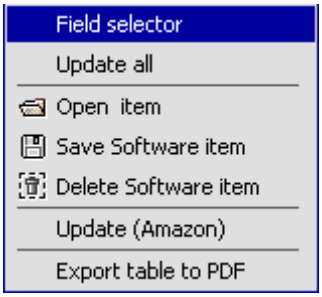
The item form shows a single item in the database. Data can be modified here before being saved to the database. Items can also be deleted or updated with data from an external web service (this latter option is explained later on in this document). Pressing the “Close” button discards all changes made to the item.

Updating data directly in the table

Instead of opening an item, you can also change, delete, or update data in the table. You can cycle through the rows using the direction keys. By pressing F2, the selected cell will change to edit mode and you can change the selected value. Changes are saved by using the right-click menu or by pressing the “Save changes” button.

9.1. Using the right-click menu

All options on the table are available in the right-click menu. Some actions, such as "Open", can be applied to single items only, while other actions can be used on multiple rows.



Field Selector
Opens a dialog that allows you to select the fields to be displayed. The fields not shown will still be maintained

Update all
Quickly sets all the fields in the table to the specified value

Open
Opens the selected item (shows the item form)

Save
Saves the selected item(s) to the database

Delete
Deletes the selected item(s) from the database

Update <online database>
Updates the selected item(s) with data from an online database such as Amazon or Imdb

Export table to PDF
Exports all the shown items to a PDF document

10. The new item tab

New values can be added by selecting the tab “New <item>”. By default the table is empty (no items are present). To enter a new item, click “Add item”. An empty item is added to the table. You can enter the data either directly into this row or use the item form.

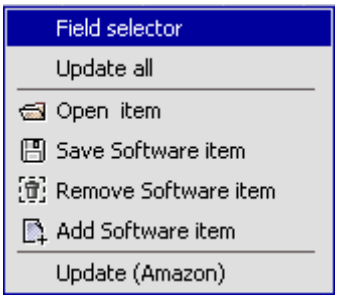
10.1. Creating a new item

There are several ways you can insert new items:

- Open the “File” menu and select “New X item”. This will open the item form. You can either type all the values or use the internet update
- Press “Add item” in the “New <item>” tab and type the values
- Press “Add item” and enter default values for every item. Open the item form (double-click on the row), enter specific values for each item, and press “Save”.
- Start the CD Import dialog (more about this later on)
- (For Audio CDs, see chapters 11 and 12)

10.2. The right-click menu

The right-click menu in the “New <item>” tab offers the following options:



Field Selector
Opens a dialog that allows you to select the fields to be displayed

Update all
Quickly sets all the fields in the table to the values specified by the user

Open
Opens the item in the item form

Save
Saves the selected items to the database

Remove
Removes the selected item(s) from the table

Add
Adds an empty row to the table

Update <online database>
Updates the selected row(s) with an online database such as Amazon or Imdb.

11. Searching the online databases

The option to update a new or an existing item using an online database is available either by using the item form, the tool or menu bar, or by using the right-click menu. The online database can also be used to add new items to the database.

There are two important settings:

Overwrite existing values

Overwrites the item with the values you chose to be transferred. If you do not select this option, only empty fields are updated

Optimize For Broadband.

When selected, better images are retrieved for software items. If the waiting time is bearable, select this option!

(The values you select will be remembered for the next session.)

11.1. Searching

When the option to update has been selected, the search form is opened. A search is started immediately if the name of the software or the title of a movie has been filled in. Otherwise, you have to start the search manually.

If the result you are looking for is not shown, try a different search condition. Enter the search condition and press “Find”.

11.2. Update

If the desired result is displayed, select the item and press update. The information of this item is used to update the item selected for updating.

11.3. Add as new

If no item was selected for updating, “add as new” is the only option available. This option transfers the selected item to the “new <item>” table. This option is also available when updating an item.

11.4. Stopping the search action

To stop the current search, press “stop”. The current search action is canceled. When more then one item was selected for updating, press “close” to stop all updates.

12. Searching online databases (Audio CDs)

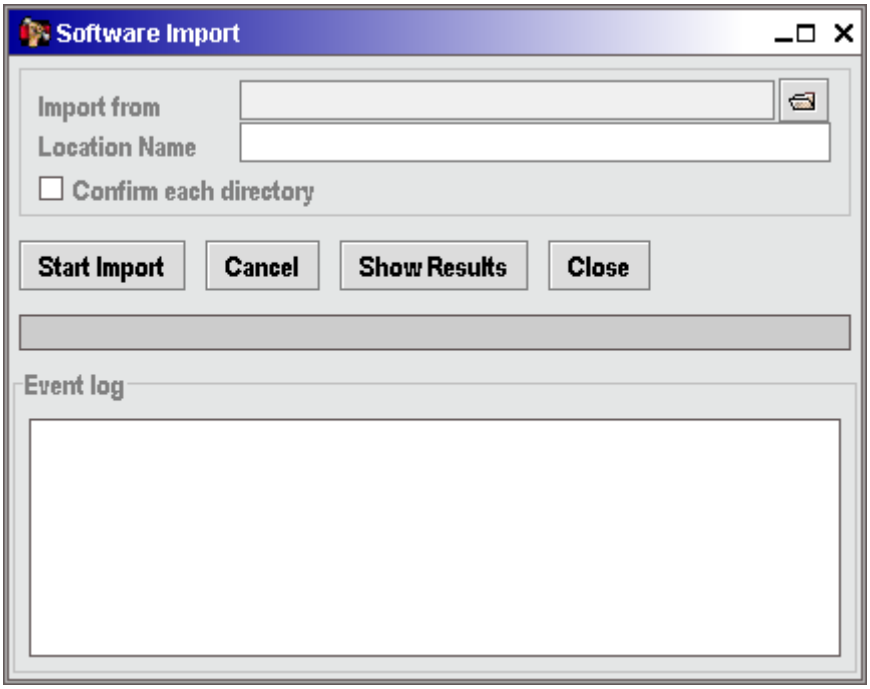
Audio CDs are a special case. Everything mentioned in chapter 10 is partly true for audio CDs. To get information for an audio CD, you need to insert the audio CD in your CD-ROM drive.

When results have been found, select the appropriate item and press “Add as new”. The Audio CD is then shown in the “new <item>” tab. It has not yet been saved to the database.

You might wonder why the result is not saved directly to the database on transfer? We did this for two reasons: 1) the new item table is consistently used as a holder for new items; 2) the new item table has more options and tools available that can be used before you save the item.

13. Importing data

Using the import feature you can quickly retrieve information from the CD-Rom or hard drive. This feature is found in the “Tools” menu and has the name ‘X import’ (where X is the module name).



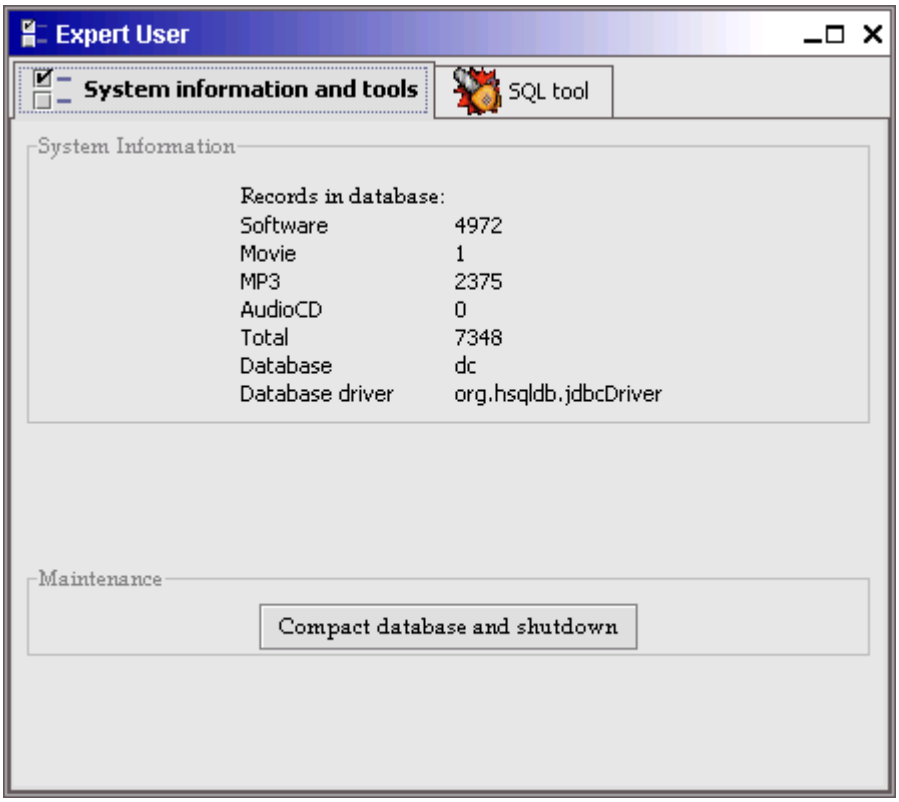
Import from location
The location from which information will be read

Location name
The name of the CD or the location where the CD is stored

Confirm each directory
For each directory it encounters, the process will ask you if the data from this directory should be read or not. If you answer no, the directory name itself will be registered, but not the files it contains. Answering yes imports the files and sub-directories from this directory.

14. Expert User Tool

The expert user tool shows system information, contains maintenance tools and offers a direct connection to the database.



14.1. System information

The system information shows how many items are in the database per module, it shows the currently used database name and the driver which is used to connect to this database.

14.2. Maintenance

For now there is only one maintenance tool available, “compact database and shutdown”. This is a direct call to the HSQL database engine. Information on this tool from the HSQL database website:

“Writes out a new .script file which contains the data for all the tables, including CACHED and TEXT tables. It then deletes the existing text table files and the .data file before rewriting them. After this, it backs up the .data file in the same way as normal SHUTDOWN. This operation shrinks all files to the minimum size”

14.3. SQL tool

The SQL tool offers a quick and direct way to manipulate data from the database. It surpasses every check on data so it should be handled with care.

If you're not familiar with SQL, you'd be better off not using the SQL Tool as you might make unwanted changes.

Creating and executing a sql statement
Enter a SQL statement in the "query input" field and press "Run" to execute the statement. Errors will be shown if the query was incorrect (these messages are not generated by Data Crow but by the database engine).

Previously executed statements can be retrieved from the "Prepared SQL statements" list box. You will see that a couple of predefined queries are already in there.

The result of a select query is shown in the "Query result" table.

15. Block note

The block note can be used to maintain a ‘To do’ list or write other remarks. It’s very straightforward. (Note that the content of the block is not the same for every module).

16. Creating a report

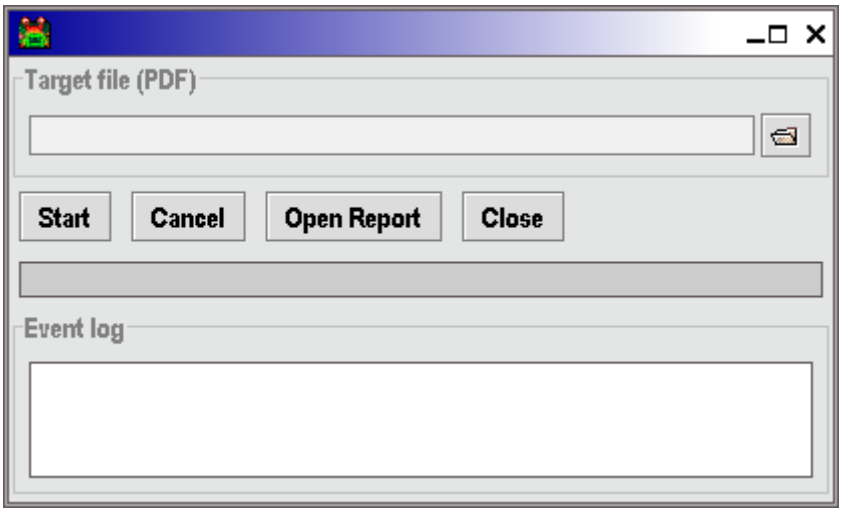
If you want to show for example a piece of software that you own to a friend, you can make a nice PDF with all the information of that piece of software. A PDF is created based on the items in the table. Hidden fields are for example not exported to the PDF.

To create a PDF report:

- Perform a search in the “Search database” tab
- Specify which fields should be exported by opening the “Field Selector” from the right-click menu (see chapter 18)
- Right-click anywhere in the table and select “Export to PDF”

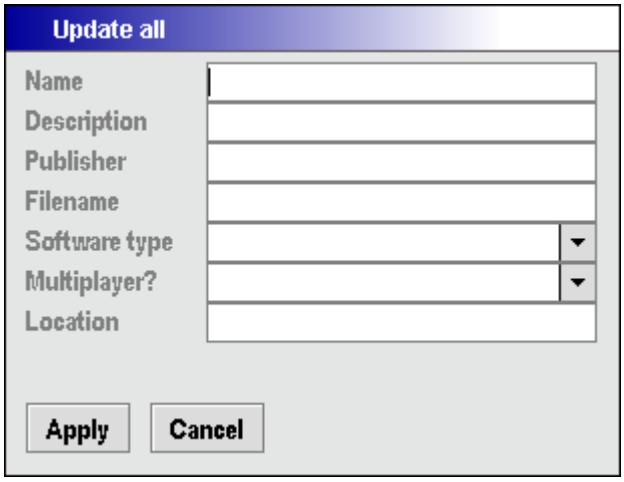
A dialog is opened. Select the target file and press “Start”. A progress bar will tell you how long the report will take to finish.

Once the report has been created, you can open it by pressing “Open Report”. The default PDF viewer installed on your operating system is used to present the report.



17. Update All

The Update all function is started by using the right-click menu (see chapter 9.4).This functionality allows you to quickly set all fields within a table to the same value. The update is performed on screen only—you still have to save the update to the database.



18. Field Selector

The Field Selector allows you to choose which fields are displayed. Fields that are not displayed will still be used for data validations (such as required fields) and are still updated using media import or internet updates.

Hidden fields play an important part as these fields are shown in tables, in search conditions, and in PDF reports.

19. The database (HSQL)

For more information about the HSQL database, please visit the HSQL webpage: http://hsqldb.sourceforge.net/.

By default, the database is called “dc”. Corresponding files called “dc.script”, “dc.data” and “dc.properties” are created within the /data directory.

20. Credits

I am grateful that other projects are out there providing sources and packages to include in Data Crow, and I would like to thank:

Amazon.com for allowing me to retrieve data from their web servers
http://www.amazon.com

Imdb.com for allowing me to extract data from their database
http://www.imdb.com

Freedb.org for allowing me to extract data from their database
http://www.freedb.org

JD3Lib to help me with Mp3 ID3/ID3v2 tags reading
http://sourceforge.net/projects/jd3lib

Entagged. I have been switching back and forth between several music tag readers. Now there is entagged and I like it
http://entagged.sourceforge.net/

HSQL: This product includes Hypersonic SQL.
Originally developed by Thomas Mueller and the Hypersonic SQL Group.
I want to thank Thomas Mueller for providing this application with an easy to use, powerful but small and platform-independent database.
http://hsqldb.sourceforge.net/

iText for providing me with the PDF and the HTML reporting
http://www.lowagie.com/iText/

Tonic Look and Feel
http://www.digitprop.com/p.php?page=java&lang=eng

izPack
For providing a smooth way to install Data Crow on multiple platforms
http://www.izforge.com/izpack/