

Data Crow

Version 1.5



<http://www.datacrow.net>

Document version: 3.1

Created by: Robert Jan van der Waals, Jesper Kusk Christensen

Last Update: April 12, 2005

1. Content

1. CONTENT	2
2. ABOUT DATA CROW	4
3. STARTING THE APPLICATION	5
3.1. DATABASE DRIVER	5
3.2. DATABASE NAME	5
4. THE MODULES (SPECS)	6
5. MAIN WINDOW	7
6. MENU BAR	8
7. TOOLS	9
7.1.	9
7.2. MUSIC ORGANIZER	9
7.3. SOFTWARE CATEGORIES	9
8. SETTINGS	10
8.1. GENERAL SETTINGS	10
8.2. REQUIRED FIELD SETTINGS	10
8.3. HTTP SETTINGS	11
8.4. BACKGROUND COLOR	11
8.5. FONTS	11
8.6. TABLE COLORS	11
9. SEARCH THE DATABASE	12
9.1. SEARCH CONDITIONS	12
9.2. SEARCH OPTIONS	12
9.3.	12
9.4. SEARCH RESULTS	12
<i>Viewing & changing existing records</i>	13
<i>The record form</i>	13
<i>Updating data in the table (directly)</i>	13
9.5. USING THE RIGHT-CLICK MENU	14
10. INSERT NEW VALUES	15
10.1. CREATING A NEW RECORD	15
10.2. THE RIGHT-CLICK MENU	15
10.3.	15
11. UPDATING DATA USING ONLINE DATABASES (MOVIES AND SOFTWARE)	16
11.1. SEARCHING	16
11.2. TRANSFER DATA TO RECORD	16
11.3. CANCELING THE SEARCH	16
12. INSERTING ITEMS USING ONLINE DATABASES (AUDIO CDS)	17
13. IMPORTING DATA	18
14. QUERY TOOL	19
14.1. QUERY INPUT	19
15. BLOCK NOTE	20

16.	CREATING A REPORT	20
17.	UPDATE ALL	21
18.	FIELD SELECTOR.....	22
19.	THE DATABASE (HSQL)	23
20.	CREDITS.....	24

2. About Data Crow

Data Crows helps you to maintain software, music and movie collections. By using internet services (like xml.amazon.co.uk, imdb.com and freedb.org) and the information stored within files the registration is automated as much as possible. Why type when your are 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, there are many nice programs which allow you to store your audio CD information... Data Crow has it all under one roof. We bet you will find Data Crow easy to use and an every good all rounder. It definitely excels in the software and audio CD registration.

Try it!

Contact information:

For information: info@datacrow.net
For support: support@datacrow.net
Website: <http://www.datacrow.net>

3. Starting the application

After the installation the product can be started. The log will always be opened first as this gives information on errors and events. After one or two seconds the connection dialog will appear. You can leave everything on default.

3.1. Database driver

Here the connection details can be specified. By default Data Crow will use the HSQL database. The HSQL database is integrated in Data Crow.

The value “Database Driver” only needs to be changed when, for any reason, you’d like to use another database engine. This is only recommended for expert users.

3.2. Database name

The name of the database is “dc” by default. The database will be created after pressing “ok”. You can choose to give the database another name. On every startup, Data Crow will by default fill in the database name which was used previously.

The integrated HSQL engine can also be run as a database server. In this case, the database name should reflect the machine name on which the database server is running (example: //localhost).

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

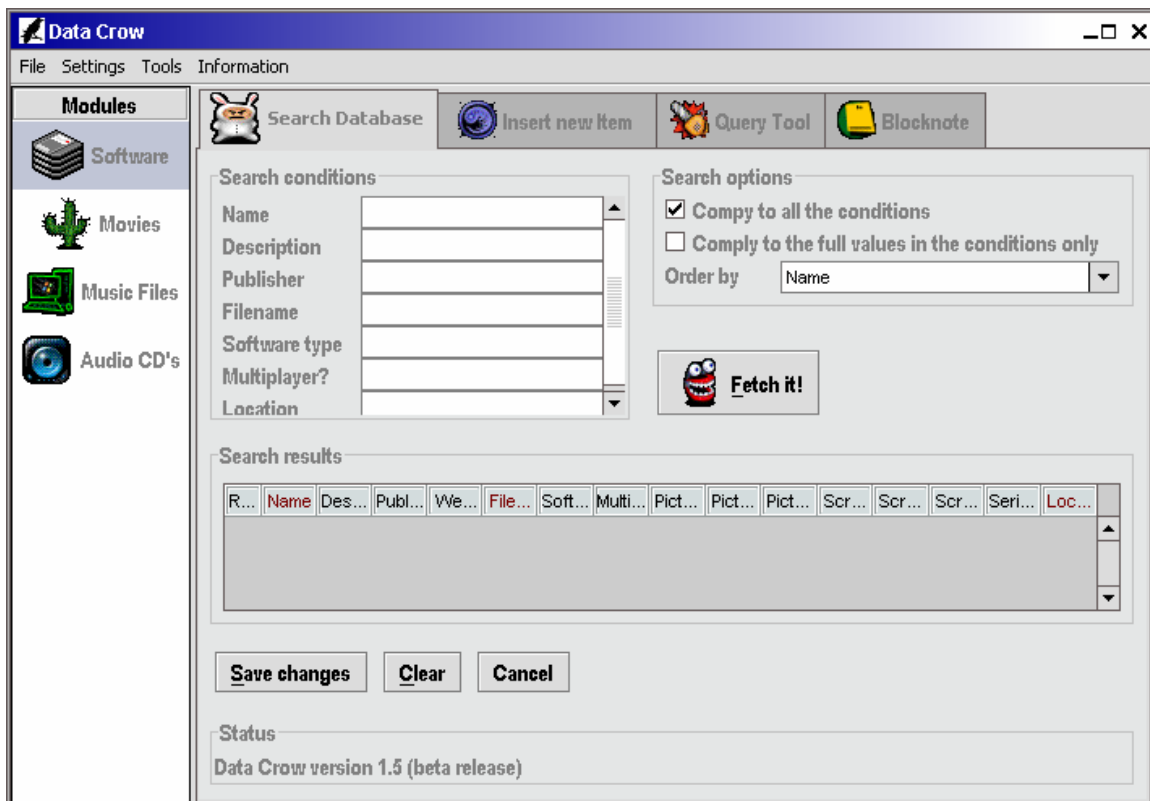
4. The Modules (specs)

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

5. Main window

The main window consists of a module list, the menu bar, a couple of tabs and a status bar. The main window has the same behavior as normal windows on your platform. By clicking on one of the tabs the content belonging to this tab will be presented to you. From the module list you can choose the module you would like to work with. At any time (even during imports) you can safely switch between modules.

- **Search database**
Existing records can be searched for, updated or deleted
- **Insert new Item**
Insert new items. Will show items imported from the internet or extracted from files / CD drives
- **Query Tool**
Maintenance. Use with care. This is meant for users with experience with the SQL syntax. We recommend starting data crow with a different database name before you run any SQL command.
- **Block note**
Here you can make annotations, remarks, reminders, ..



6. Menu bar

There are four main menu's:

- **File**
Items can be created, deleted or opened. There is also the option to view events or quit the application
- **Settings**
The settings can be opened from here. The module list (the bar on the left hand side of the screen) can be made visible or hidden.
- **Tools**
All tools are gathered here. The tools shown can differ per module as every module comes with its own. A common tool is the "Item import".
- **Information**
General Information

7. Tools

7.1. Music Organizer

This tool allows you to physically sort music files. It currently supports ogg, flac, wav, mp3 and mp4. From these files information is read (stored in the so called “ID Tag”). Based on the information retrieved, the files can be grouped together. Basically all, let’s say mp3 files, from the same artist can be moved to one directory. When no information is available within the file, the file will not be moved and thus remains at its original location.

- **Ordering type**
Can either be “genre”, “album” or “artist”
- **Input directory**
The directory where the music files persist
- **Output directory**
This is the directory where the music files will be moved to. If no directory is chosen, the input directory will be used as the output directory

7.2. Software categories

A piece of software can be categorized by using the list box “Software type”. By default there are no categories (a category could be “tool”, “3d shooter”, etc). To add or change categories select the “categories” button from the menu bar. Here you can enter new data or update existing categories.

8. Settings

Settings allows you to change the general behavior of the application. Visual options, such as the background color, or data structure options, such as the required fields, can be found here. All settings are stored within a file called “datacrow.properties” which can be found in the Data Crow directory of your installation.

8.1. General settings

- **Maximum of search records**
The maximum amount of retrieved records is defined by this setting. The default is a thousand records. The lower the maximum amount of records, the lesser the memory usage for searches with a broad search condition.
- **Check for value uniqueness upon saving**
When active, Data Crow will check if the record is unique before it is saved. The uniqueness is checked by the required field values. If the record is not unique it will not be saved and a message is displayed. By default this option is enabled. We do not recommend turning this option off.
- **Check for required fields upon saving**
Checks if all the required fields have been filled. If they haven't been filled, the record is not saved to the database. Data Crow will show a message which tells you which fields should be filled before the record can be saved. By default this option is enabled. We do not recommend turning this option off as this could cause data inconsistencies. We do recommend however to 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.

8.2. Required field settings

The required fields can be specified by setting the value “required y/n” to “yes” in the required fields table.

For each module the required fields can be set. The fields of an item will be checked if they are filled if the option “check for required fields upon saving” is enabled. The required fields can also be used to check if an item is unique before saving it to the database via the option “check for value uniqueness upon saving” (see chapter 8.1).

8.3. HTTP Settings

Here the general HTTP settings can be specified.

- **HTTP user agent**
With this string Data Crow identifies itself to the web servers it tries to contact. It should not be needed to change this value, but if you feel the need to do this you can (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'll need to fill in the port of this server. By default the port is set to 0 (not present) . Most proxy servers will be on port "*8088*".
- **Proxy Server name**
The name of the proxy server needs be specified when you are behind a proxy server.

8.4. Background color

The background color is set by using the slider on the right side of the color panel or by clicking on the color in the color pallet. The color of Data Crow is immediately changed. Please do not forget to press save, otherwise the selected color will be not be saved for a next session!

8.5. Fonts

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

8.6. Table Colors

Every color, from the row selection color to the color of the even and odd rows, can be modified / selected here.

9. Search the Database

Every module has the tab “Search Database”. Here existing data can be retrieved, altered and deleted.

When searching for records, search conditions and search options are used to filter and to present the results.

9.1. Search conditions

In the “Search conditions” area the values for which must be searched can be entered. It is possible to enter more than one value on which must be searched. This can be done by separating the values with the ‘%’ sign. For example the search condition “easy%creator” will retrieve all records which contain easy AND creator. Note that there are no spaces between the ‘%’ sign and the values.

9.2. Search options

- **Comply to all conditions**

With this option can be specified if the resulting records must comply to all the search conditions or 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 records which contain the name “test” AND the location “CD1”. If the option is set to “Or” the result will contain all the records 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 records 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

9.3. Search results

In the search result table the results of the search are displayed in the table. One row represents one record. Right clicking on a record opens a small menu with options and actions for this record. Records can be deleted, opened or updated using a web service. Items can also be directly modified within the table.

Viewing & changing existing records

Once a search has been executed the results are displayed in the search results table. To clear the results from the table on screen press the “clear” button. Items can be opened by a double click on one row, pressing F12 or using the right-click menu. An item is opened in the record form.

The record form

The record form represents one item in the database. Data can be altered here and then saved to the database. Items can also be deleted or updated with data from an external, web service. This last option will be explained later on in this document. The option “close” discards all changes made to the record.

Updating data in the table (directly)

Instead of opening an item, you can also change, delete or update data in the table. You can walk thru 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 button “save changes” which is positioned in the right left corner below the table.

9.4. Using the right-click menu

All options on the table are available in the right-click menu. Some actions are for one record only, such as “open” and some can be used on multiple selected rows.

- **Field Selector**
Opens a dialog which 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 row (shows the record form)
- **Save**
Saves the selected row(s) to the database
- **Delete**
Deletes the selected row(s) from the database
- **Update <online database>**
Updates the selected row(s) with data from an online database such as Amazon or Imdb
- **Export table to PDF**
Exports the data to a PDF document.

10. Insert New values

New values can be added by selecting the tab “Insert new item”. By default the table will always be empty (no rows are present). To enter new data click “add row”. An empty row is added to the table. You can either enter the data directly into this table or use the record form. This works the same as for the existing values.

10.1. Creating a new record

When you first start Data Crow, the database will still be empty. To insert new items you have multiple ways available to you:

- (For Audio CD's also read chapters 11 and 12)
- Start the CD Import dialog (more about this later on)
- Open the “File” menu and select “New X item”. This will open the record form. You can either type all the values or use the internet update. The latter will save you a lot of typing (see chapter 11).
- Press “Add Row” in the “New Values” tab and type the values
- Press “Add Row” in the “New Values” tab and type the default values you need for every item. Open the record form (double click on the row), enter the specific values for each item and press save.

10.2. The right-click menu

For the “new values” table the right-click menu offers different options than the “existing values” table.

- **Field Selector**
Opens a dialog which allows you to select the fields to be displayed.
- **Update all**
Quickly sets all the fields in the table to the value specified by the user.
- **Open**
Opens the record in the record form
- **Save**
Inserts the selected items into the database
- **Del row**
Removes the row from the table
- **Add row**
Adds an empty row to the table
- **Update <online database>**
Updates the selected row(s) with data from an online database such as Amazon or Imdb

11. Updating data using online databases (Movies and Software)

As explained earlier in this document, the option to update data (new or existing) using an online database is available either by using the record form or by using the right-click menu.

There are two important options (the value you selected will be remembered for a next time and can be changed for every session).

- **Overwrite existing values**
Overwrites the record 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 records. When the waiting time is bearable, select this option.

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. Otherwise the search form will just be opened without starting a search action.

If the result you are looking for is not shown, try a different search. Type the search condition and press "Fetch".

11.2. Transfer data to record

If the result you were looking for is shown, select the record and press transfer. The option "Overwrite existing values" does just what it says it does. Once changed, the option will be remembered for future updates (though can be changed again).

11.3. Canceling the search

If more than one row was selected to update, you will have to press "Stop all" to stop the entire update. To stop a single search, press "Stop". Pressing "Stop" while updating multiple records only cancels the update for the current record, the batch will continue as normal.

12. Inserting items using online databases (Audio CDs)

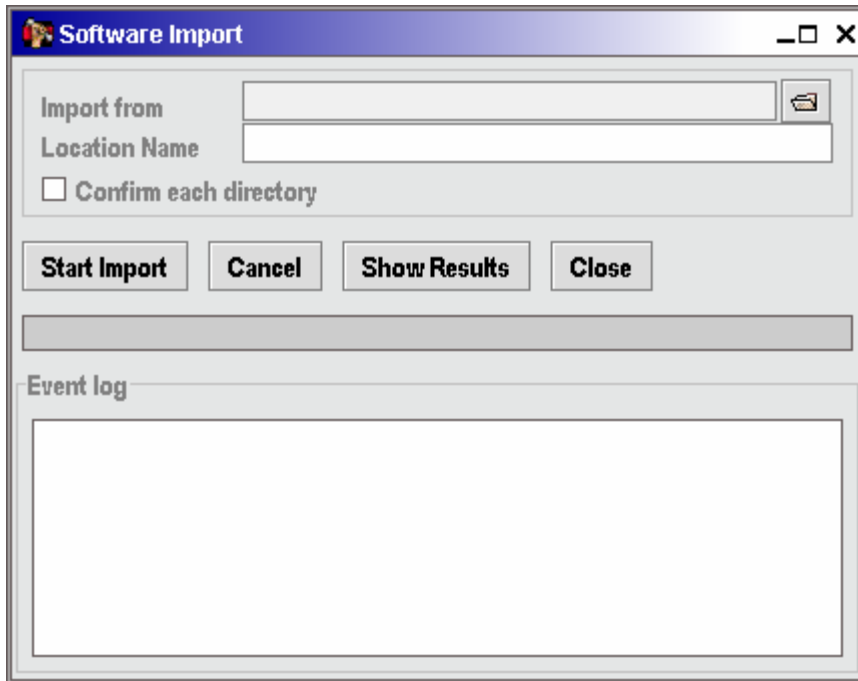
Audio CDs are a special case. Everything mentioned in chapter 10 is partly true for the audio CDs. To get the information for an audio CD, you need to insert the audio CD in your CD-ROM drive.

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

You might wonder “why is the result not saved directly to the database on transfer?”. We did this for two reasons. One, the insert table is consistently used as a holder for new items. Two, the insert table has more options and tools available which can be used before you save the record.

13. Importing data

With the media import you can quickly retrieve information from CD-Rom or hard drive. The feature can be 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**
Can be the name of the CD or maybe a location of where the CD is stored
- **Confirm each directory**
Using this option the process will, for each directory it encounters, ask you if the data from this directory should be read or not. If you choose to 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. Query Tool

The query 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 know nothing about SQL you'd be better off not using the Query Tool as you might make unwanted changes.

14.1. Query input

Input an SQL statement 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 "SQL commandos" 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 TODO list or just to write some remarks. It's very straight forward. The content of the block is not the same for every module.

16. Creating a report

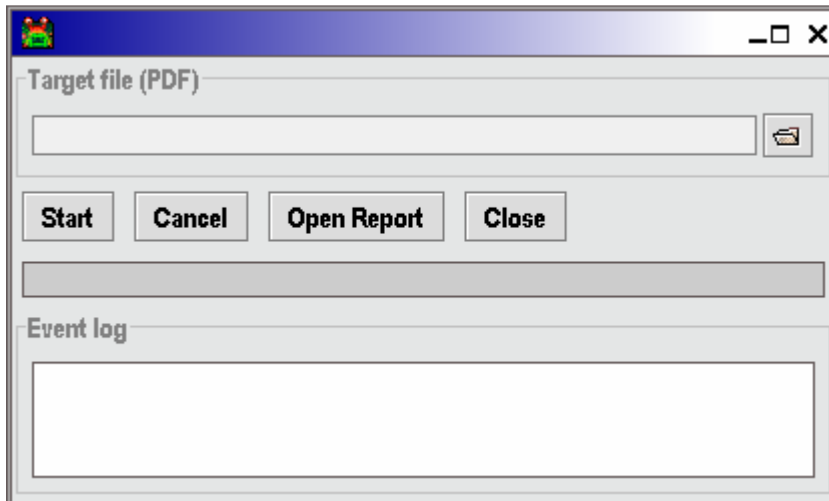
If you want to show for example a piece of software that you own to a friend, you can make a nice PDF with all the information of that piece of software. A PDF is created based on the items in the table. Hidden fields are for example not exported to the PDF.

Steps 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”

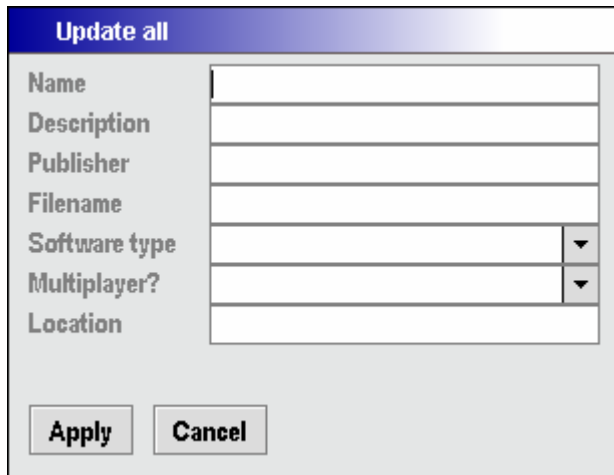
A dialog is opened. Select the target file and press start. A progress bar will tell you how long the report will take to finish.

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 functionality is started by using the right click menu (see chapter 9.4). With the update all functionality you can quickly set all fields within a table to the same value. The update is performed on screen only; you still have to save them to the database.



The image shows a dialog box titled "Update all" with a blue header bar. Inside the dialog, there are seven input fields arranged vertically, each with a label to its left: "Name", "Description", "Publisher", "Filename", "Software type", "Multiplayer?", and "Location". The "Software type" and "Multiplayer?" fields have small downward-pointing arrow icons to their right, indicating they are dropdown menus. At the bottom of the dialog, there are two buttons: "Apply" and "Cancel".

Update all	
Name	<input type="text"/>
Description	<input type="text"/>
Publisher	<input type="text"/>
Filename	<input type="text"/>
Software type	<input type="text"/> ▼
Multiplayer?	<input type="text"/> ▼
Location	<input type="text"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

18. Field Selector

The field Selector allows you to choose which fields are displayed and which fields are not. These fields 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 will not be shown in tables, in the search condition, in PDF reports and

19. The database (HSQL)

For more information about the HSQL database you could best go the HSQL webpage:
<http://hsqldb.sourceforge.net/>

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

20. Credits

We are glad other projects are out there, providing me with sources and packages to include in Data Crow.

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>