

# ADT: FAQ Manager Version 1.0

## Functional Specification

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## Document Revisions

Revisions on this document should be recorded in the table below:

	<b>Date</b>	<b>Description</b>	<b>Author</b>
1	28 November 2001	First Draft	Josh
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3			
4			

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# 1 Introduction

## 1.1 Purpose of this document

The purpose of this document is to specify the functional and system specification of the FAQ Manager application and its counterpart, FAQ Manager. The document will provide a road-map through which the implementation of the application will be developed and where applicable, will also contain information detailing technical design constraints and assumptions.

## 1.2 Scope of this document

The scope of this specification covers the functional specifications of the FAQ Manager application. This specification does not extend to third party or infrastructure components (such as a web server installation and/or configuration) .

## 1.3 Overview

The basic functions of FAQ Manager are:

- To allow the administrator to add, modify, or delete records
- To allow easy management of large data sets without multiple HTML files
- To allow searching of the records
- To permit additions to a body of knowledge for the benefit of all

## 1.4 Business Context

FAQ Manager is a web application designed for software developers, tech support personnel, or anyone who needs to record Frequently Asked Questions. The generic version is open source for distribution. Anyone may take advantage of the powerful eXtropa Perl ADT. Improvements will be made incrementally as bug reports come in and suggestions are made. The generic FAQ Manager will ultimately benefit both the company and our users.

# 2 General Description

## 2.1 Product Functions

The general functionality of the FAQ Manager application is to allow users to display specific information in a single location online. The application generates a dynamic page depending on the entered information and the setup preferences. FAQ Manager permits additions and removals to the database.

## 2.2 General Constraints

The FAQ Manager (Public) is intended to be the front end for simple searching. This application, FAQ Manager, is intended for administrators to enter in new information or to change old information. It is possible, but not necessarily desirable, to let anyone use the Manager to create a community managed body of knowledge.

The application will be written in Perl and the data files are stored in a common flat file system (ASCII File). This will slow down in terms of searching for information if there is a presence of huge database.

The application is also able to interface with relational databases should the administrator desire it.

**Bold Params** indicate Section Headings. *Italic Params* are objects.

Indented Params are configurable variables.

Grayed out or missing items are not required or not available in the default configuration.

Param	Default configuration	Notes
<b>Language</b>	Perl	
<b>Session Setup</b>		
Type	File	Note that flatfile data sources are slow. We recommend upgrading to a database based data source
Max Modify Time	1 hour	
Fatal Timeout	Off	
Fatal if session not found	Off	
<i>Session Manager Setup</i>		
Type	FormVar	
Cgi Object	\$CGI	
Session Params	Session Config Params	
<b>Authentication Setup</b>		For the datasource
Type	File	
Field Delimiter	(pipe)	
Create a file if none exists	On	
Field Names	From Auth User Datasource	
File	Scriptname.users.dat	Path is set at start of script
Default Authentication Fields	Username, password, groups, firstname, lastname, email	
<b>Authentication Manager Setup</b>		How requests are processed
Color for even rows	E5E5E5	
Color for Odd Rows	FFFFFF	
CSS View URL	\$CSS_VIEW_URL	
Application Logo	logo.gif	
Application Logo Height	40	
Application Logo Width	353	
Application Logo ALT	eXtropa FAQ Manager	
HTTP Header Params	[-EXPIRES => '-1d']	
Document Root URL	'/' or web root directory	
Image Root URL	/Images/Extropa	
Script Display Name	'FAQ Manager'	
Script Name	\$CGI->script_name()	
Page Top View	PageTopView	
Page Bottom View	PageBottomView	

Link Target	'_self' or current window	
User_Fields	Auth_username, auth_password, auth_groups, auth_firstname, auth_lastname, auth_email	
Mail Params		
Type	Sendmail	Default on most systems
User Mail Send Params		
From	you@yourdomain.com	
Subject	Password Generated	
Admin Mail Send Params		
From	you@yourdomain.com	
To	you@yourdomain.com	
Subject	Registration Notification	
Auth Manager Config Params		
Type	CGI	
Allow Registration	On	
Allow User Search	On	Allow anyone to check for an old account.
Generate Password	Off	
Default Groups	Normal	
Email Registration to Admin	Off	
Display Registration After Failure	On	
<b>Data Handler Setup</b>		How data is handled
Add Form DHM Config		
Type	CGI	
CGI Object	\$CGI	
Data Handlers	Exists, HTML, String	
Field Mappings	'category' => 'Category', 'question' => 'Question', 'answer' => 'Answer',	
<b>Datasource Setup</b>		Configure the database and fields displayed
Field Names	record_id, category, question, answer, username_of_poster, date_time_posted,	Corresponds to default extropia database
Sample Default Widget Definitions		Configure field types for TTML
Display Name	Country	Name that appears in the browser
Type	Textfield, textarea, popup_menu	
Name	Fname	Internal field name
Size	30	Display size in characters
Maxlength	80	Maximum number of characters permitted
Rows	6	Initial height of textarea
Cols	30	Initial width of textarea
Wrap	VIRTUAL	Wrapping of text in textarea
Values	webstore, extropia_install,	The form values embedded inside the

	cgi_install, taint_mode, adt, webcal, extropia, java,	HTML. Must match your category mappings elsewhere.
Labels	i.e: 'webdb' => 'WebDB'	What the popup menu displays to the client
<i>Basic Datasource Config Params</i>		Configure datasource
Type	File	
File	\$APP_DATAFILES_DIRECTORY/\$APP_NAME.dat	
Field Delimiter	(pipe)	
Comment Prefix	#	Ignore lines starting with #
Create File if None Exists	On	
Field Names	\@DATASOURCE_FIELD_NAMES	
Key Fields	['record_id']	Not required if key is not used
Field Types	Record_id => 'Autoincrement'	Specify a specific kind of field
<b>Mailer Setup</b>		Required for regular email. Not the same as Auth Mailer
<i>Mail Config Params</i>		
Type	Sendmail	
<i>Email Display Fields</i>	Question, answer, category	Fields to email
<i>Delete Event Mail Send</i>		Warns Someone of Deletions to the database
From	you@yourdomain.com	
To	you@yourdomain.com	
Reply To	you@yourdomain.com	
Subject	FAQ Manager Delete	
<i>Add Event Mail Send</i>		Tells user of additions
From	you@yourdomain.com	
To	you@yourdomain.com	
Reply To	you@yourdomain.com	
Subject	FAQ Manager Addition	
<i>Modify Event Mail Send</i>		Tells user of modifications to records
From	you@yourdomain.com	
To	you@yourdomain.com	
Reply To	you@yourdomain.com	
Subject	FAQ Manager Modification	
<b>Logging Setup</b>		
Type	File	
Log File	\$APP_DATAFILES_DIRECTORY/\$APP_NAME.log	
Log Entry Suffix	' ' . _generateEnvVarsString() . ' ',	
Log Entry Prefix	'FAQ '	
<b>View Setup</b>		Views to use, display, and defaults

<i>Valid Views</i>	CSSView, AddAcknowledgementView, AddRecordConfirmationView, DeleteRecordConfirmationView, DeleteAcknowledgementView, ModifyAcknowledgementView, ModifyRecordConfirmationView, SessionTimeoutErrorView, AddRecordView, PowerSearchFormView, ManagerBasicDataView, DetailsRecordView, ModifyRecordView, LogoffView, OptionsView,	The program cannot display views that are not available here.
<i>View Display Params</i>		Defaults for Views
Application Logo	logo.gif	
Application Logo Height	40	
Application Logo Width	353	
Application Logo ALT	eXtropa FAQ Manager	
Color for Even Rows	E5E5E5	
Color for Odd Rows	FFFFFF	
Display Fields	Category, question, answer	Fields that will be displayed on RecordDetails
Home View	PowerSearchFormView	Default View
Field Name Mappings	category => "Category", question => "Question", answer => "Answer"	How will the internal name appear to the user?
Selected Display Fields	Category, question	Which are shown to the user after a search?
Sort Fields	Category, question, answer	Sort by these fields
<b>Filter Setup</b>		
<i>HTMLIZE Filter</i>		
Type	HTMLize	
Convert Double Linebreak to P	On	
Convert Linebreak to BR	On	
<i>Charset Filter</i>		
Type	CharSet	
<i>Embed Filter</i>		
Type	Embed	
Enable	Off	
<b>Action/Workflow Setup</b>		
<i>Action Handler List</i>	Defaults	User should not need to modify
<i>Action Handler Action Params</i>		
Action Handler List	Default::SetSessionData Default::DisplayCSSViewAction Default::DisplaySessionTimeoutErrorAction Default::PerformLogoffAction Default::PerformLogonAction Default::DisplayOptionsFormAction	



	Default::DownloadFileAction Default::DisplayAddFormAction Default::DisplayAddRecordConfirmationAction Default::ProcessAddRequestAction Default::DisplayDeleteFormAction Default::DisplayDeleteRecordConfirmationAction Default::ProcessDeleteRequestAction Default::DisplayModifyFormAction Default::ProcessModifyRequestAction Default::DisplayModifyRecordConfirmationAction Default::DisplayPowerSearchFormAction Default::DisplayDetailsRecordViewAction Default::PerformPowerSearchAction Default::DisplayBasicDataViewAction Default::DefaultAction	
Add Acknowledgment View Name	AddAcknowledgementView	
Add Email Body View	AddEventEmailView	
Add Form View Name	AddRecordView	
Allow Additions Flag	On	
Allow Deletions Flag	On	
Allow Duplicate Entries	Off	
Allow Username Fields to be Searched	On	
Allow Modifications Flag	On	
Application Sub Menu View Name	ApplicationSubMenuView	
Options Form View Name	OptionsView	
Auth Manager Config Params	\@AUTH_MANAGER_CONFIG_PARAMS	
Add Record Confirmation View Name	AddRecordConfirmationView	
Basic Data View Name	BasicDataView	
CGI Object	\$CGI	
CSS View URL	\$CSS_VIEW_URL	For speed, change CSS URL to a location outside the CGI directory.
CSS View Name	CSSView	
Datasource Config Params	\@DATASOURCE_CONFIG_PARAMS	
Allow Additions	On	
Allow Deletions	On	
Allow Duplicate Entries	Off	
Allow Modifications	On	
Default Sort Field1	Username_of_poster	
Default Sort Field 2	Amount_in_sing_dollars	
Delete Acknowledgment View	DeleteAcknowledgementView	
Delete Record Confirm View	DeleteRecordConfirmationView	
Records Per Page Options	[5, 10, 25, 50, 100]	Remove or change numbers as desired. This

		appears under Options.
Max Records Per Page	<code>\$CGI-&gt;param('records_per_page')    5</code>	
Sort Field 1	<code>\$CGI-&gt;param('sort_field1')    'category'</code>	Sort by which field?
Sort Field 2	<code>\$CGI-&gt;param('sort_field2')    'fname'</code>	Sort by which field?
Sort Direction	<code>\$CGI-&gt;param('sort_direction')    'ASC'</code>	ASC=Ascending, DSC=Descending
Delete Form View Name	BasicDataView	
Delete Email Body View	DeleteEventEmailView	
Details View Name	DetailsRecordView	
Data Handler Manager Config Param	<code>\@DATA_HANDLER_MANAGER_CONFIG_PARAMS</code>	
Display Acknowledgement On Add	Off	
Display Acknowledgement On Delete	Off	
Display Acknowledgement On Modify	Off	
Display Confirmation On Add	On	
Display Confirmation On Delete	On	
Display Confirmation On Modify	On	
Enable Sorting	On	
Hidden Admin Fields View	HiddenAdminFieldsView	
Input Widget Definitions	<code>\@INPUT_WIDGET_DEFINITIONS</code>	
Key Field	record_id	
Logoff View	LogoffView	
URL Encoded Admin Fields View	URLEncodedAdminFieldsView	
Log Config Params	ModifyAcknowledgementView	
Modify Acknowledgment View	ModifyRecordConfirmationView	
Mail Config Params	<code>\@MAIL_CONFIG_PARAMS</code>	
Modify Form View	ModifyRecordView	
Modify Email Body View	ModifyEventEmailView	
Power Search View	PowerSearchFormView	
Require Auth to Search	On	Is authorization required for the action?
Require Auth for Add	On	Is authorization required for the action?
Require Auth for Modify	On	Is authorization required for the action?
Require Auth for Delete	On	Is authorization required for the action?

Require Auth for Details	On	Is authorization required for the action?
Require Matching Username for Modify	Off	Is a matching group or username required for the action on that record?
Require Matching Group for Modify	Off	Is a matching group or username required for the action on that record?
Require Matching Username for Delete	Off	Is a matching group or username required for the action on that record?
Require Matching Group for Delete	Off	Is a matching group or username required for the action on that record?
Require Matching Username for Search	Off	Is a matching group or username required for the action on that record?
Require Matching Group for Search	Off	Is a matching group or username required for the action on that record?
Send Email on Delete	On	
Send Email on Modify	Off	
Send Email on Add	Off	
Session Object	\$SESSION	
Session Timeout View	SessionTimeoutErrorView	
Templates Cache Directory	\$TEMPLATES_CACHE_DIRECTORY	
Valid Views	\@VALID_VIEWS	
View Display Params	\@VIEW_DISPLAY_PARAMS	
View Filters Config Params	\@VIEW_FILTERS_CONFIG_PARAMS	
View Loader	\$VIEW_LOADER	
Simple Search String	\$CGI->param('simple_search_string')    ""	
First Record on Page	\$CGI->param('first_record_to_display')    0	
Last Record on Page	\$CGI->param('first_record_to_display')    "0"	
Page Top View	PageTopView	
Page Bottom View	PageBottomView	
Action Handler Plugins	\%ACTION_HANDLER_PLUGINS,	
Basic Input Widget Display COLSPAN	2	

## 3 Functional Requirements

### 3.1 FAQ Manager Application

#### 3.1.1 Description

The following definitions only cover the Default settings and views.

##### Authentication Definition Views

The application will allow any user read-only rights to view the records registered in the database. Only registered users however, may add, modify, and delete records. There is no capacity for multiple group definitions, thus the default group is "Normal" and cannot be changed.

Default Settings Permit:

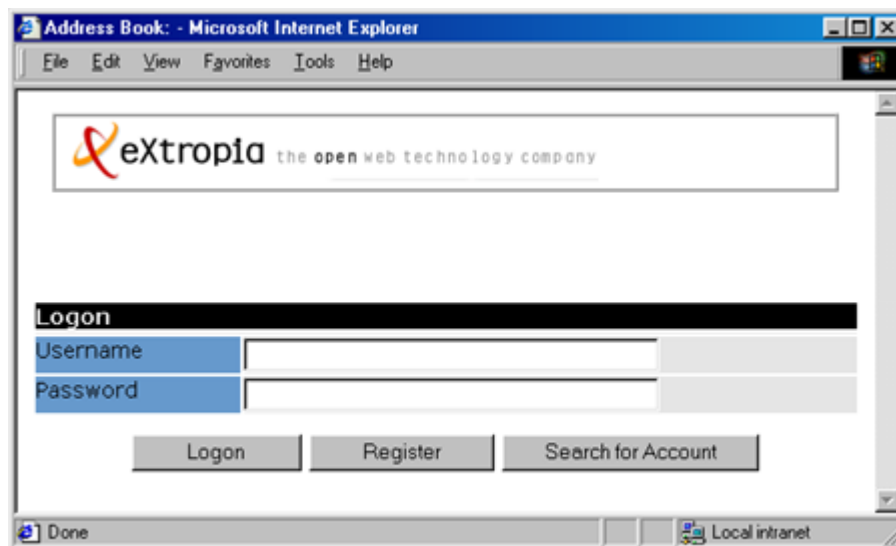
- Only Registered Users may view records
- Only Registered Users may search records
- Registered users may add, modify, and delete records
- Registration is available to anyone
- Users may Search for accounts.

Registration of normal users is simply done by pressing "Logon" and following the Registration Views. User data is written to the datasource. In the default installation, it is written to Datafiles/FAQ/faq.users.dat. It is recommended that administrators do not alter the contents, especially the encrypted passwords. The information is listed as:

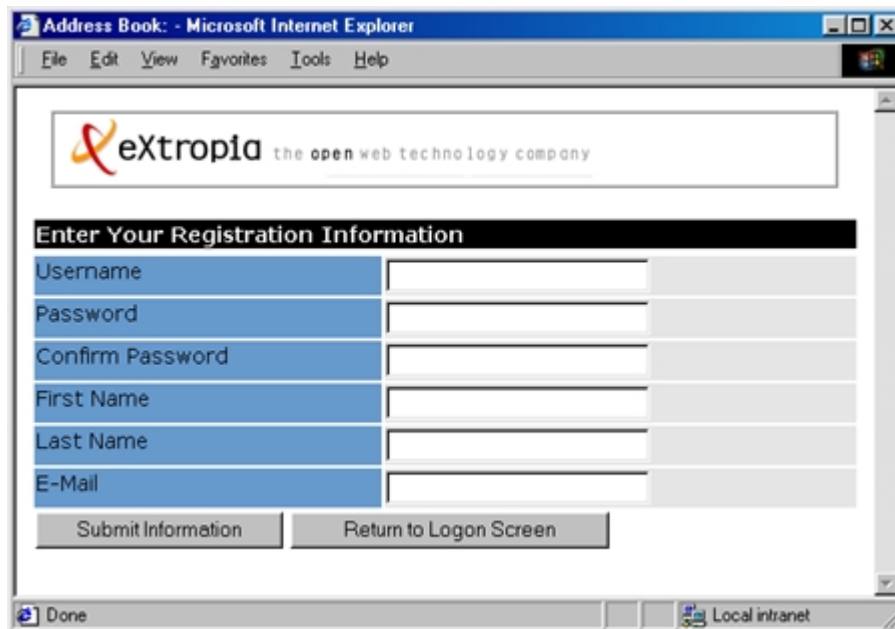
```
username | password | group_name | fname | lname | email
```

Registration of Administrative users may be done with faq\_manager.cgi. System administrators will be able to alter hard data in databases or flatfiles as needed.

- **Logon View** requests the Username and Password of registered users. Users may attempt to logon, Register, or Search for Account. Also the view for failed logins.



- **Register View** permits any user to enter Username, Password, Confirm, Password, First Name, Last Name, and E-Mail. The user may then Register or Return to Logon Screen.



Address Book: - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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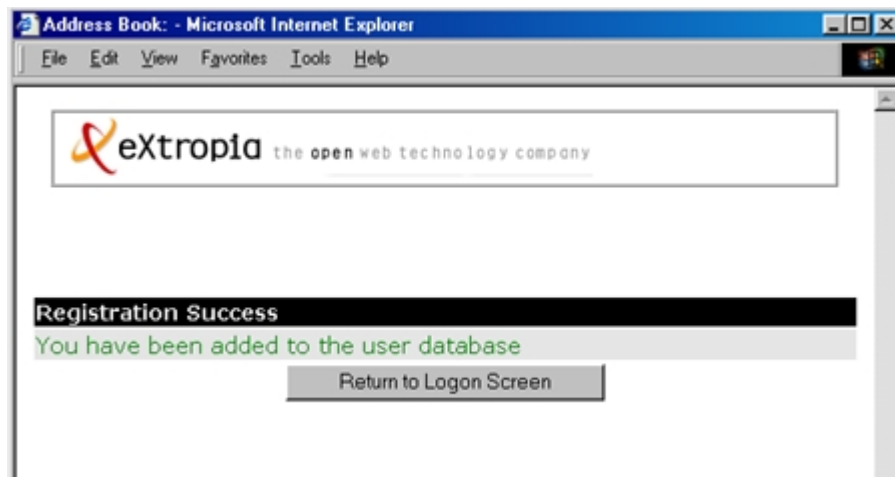
**Enter Your Registration Information**

Username	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
First Name	<input type="text"/>
Last Name	<input type="text"/>
E-Mail	<input type="text"/>

Submit Information Return to Logon Screen

Done Local intranet

- **Register Confirmation View** confirms registration and returns the user to the Logon View.



Address Book: - Microsoft Internet Explorer

File Edit View Favorites Tools Help

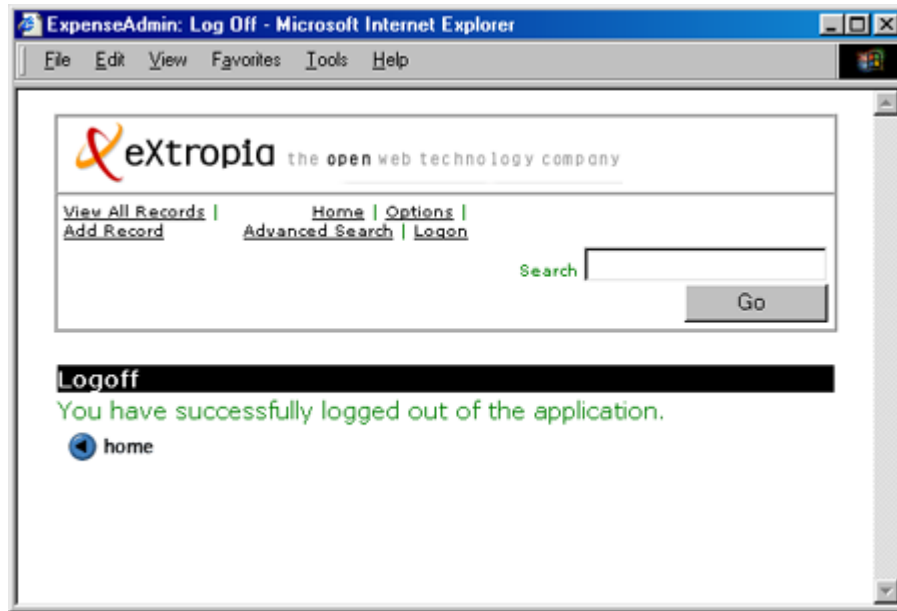
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**Registration Success**

You have been added to the user database

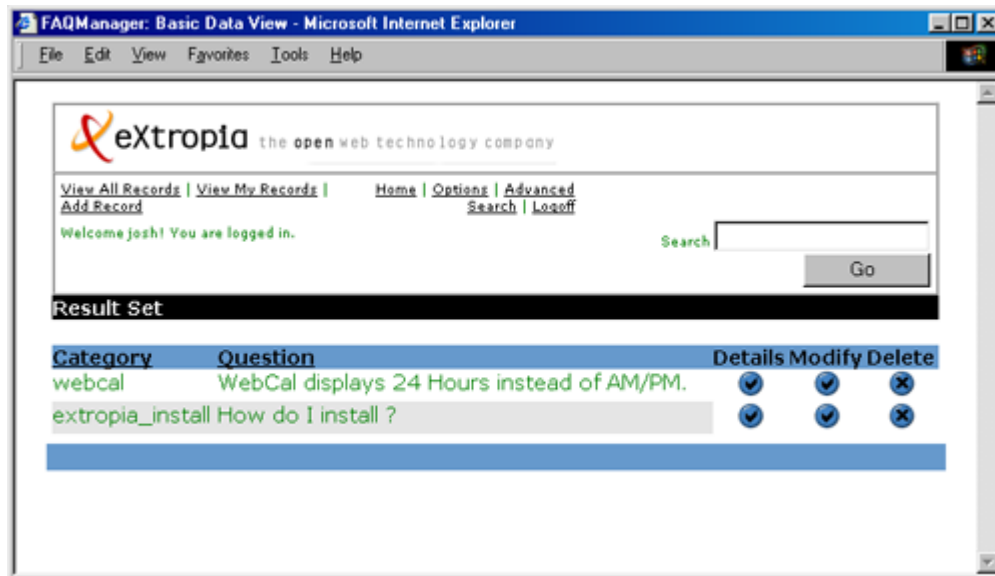
Return to Logon Screen

- **Logoff View** logs the user out and confirms the logoff. The session is terminated.

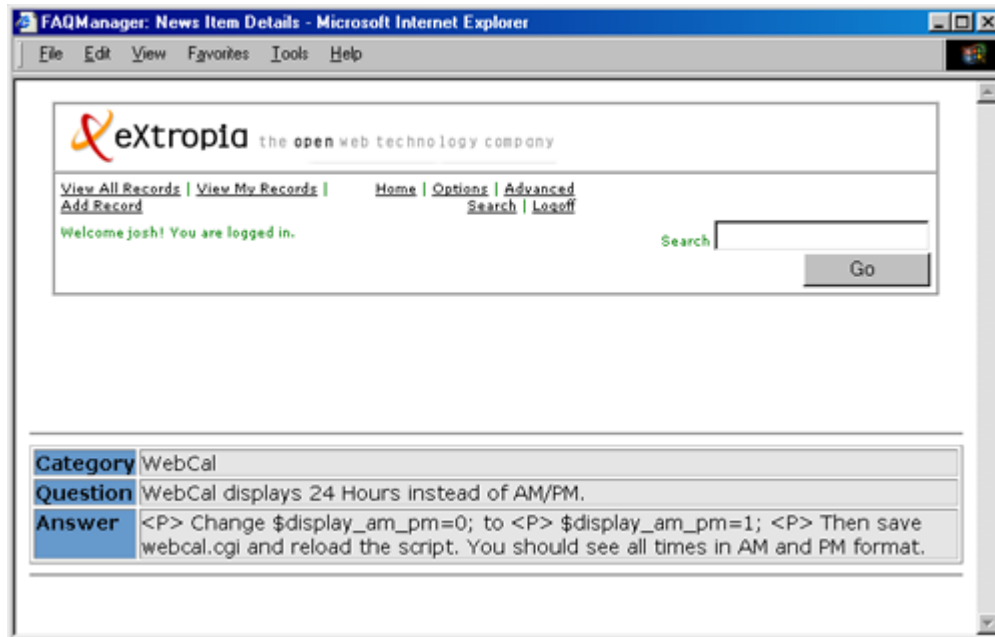


**Application Specific View Definitions**

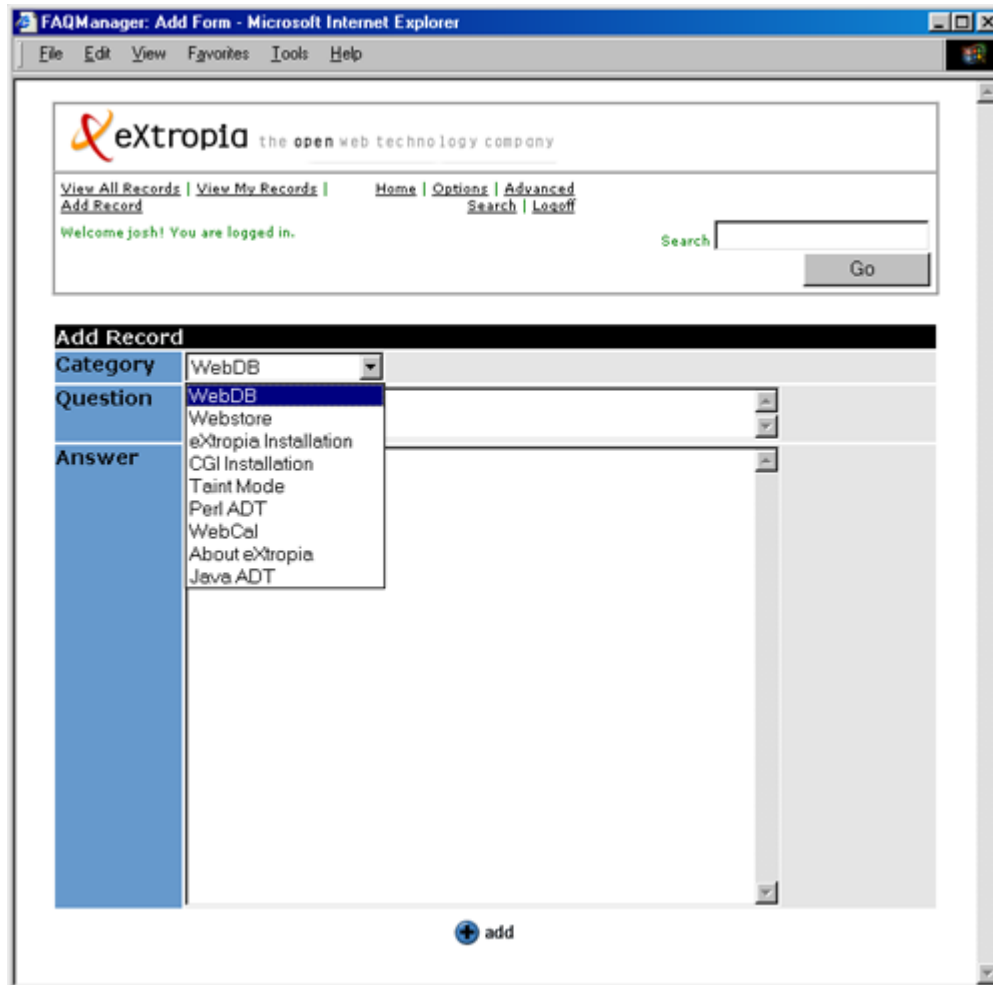
- **Basic Data View** displays the Category and Question of each record found. Only the first 10 records are displayed. Options include record Details, Modify, or Delete. Users may also take advantage of the usual eXtropia options: View All Records, View My Records, Add Record, Home, Options, Advanced Search, and Logoff. In addition, users may try a keyword search.



- **Details View** displays the question, answer, and category. Unlike FAQ Public, HTML tags are displayed as text.

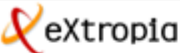


- **Add Record Form** permits entry of a new record. Category, Question, and Answer are the only fields. Users may enter any text, including HTML tags. Reserved Perl characters such as the backslash are illegal and errors are reported. Users will need to substitute &#92; for \



FAQManager: Add Form - Microsoft Internet Explorer

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[View All Records](#) | [View My Records](#) | [Home](#) | [Options](#) | [Advanced](#)  
[Add Record](#) [Search](#) | [Logout](#)

Welcome josh! You are logged in.

Search

**Add Record**

**Category** WebDB

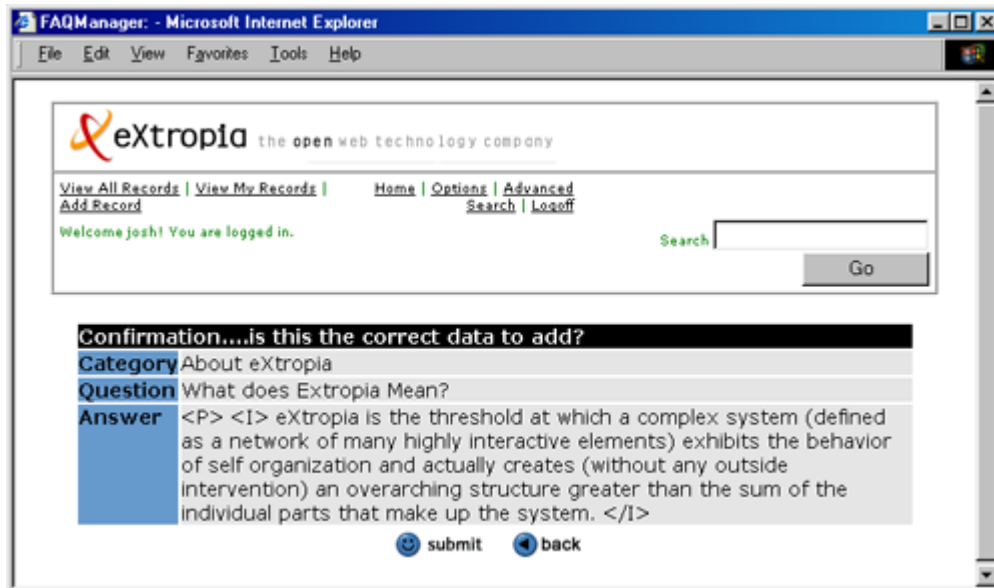
**Question** WebDB

**Answer**

Webstore  
eXtropy Installation  
CGI Installation  
Taint Mode  
Perl ADT  
WebCcl  
About eXtropy  
Java.ADT



- **Add/Modify Record Confirmation View** will display details of the new record and ask for confirmation.

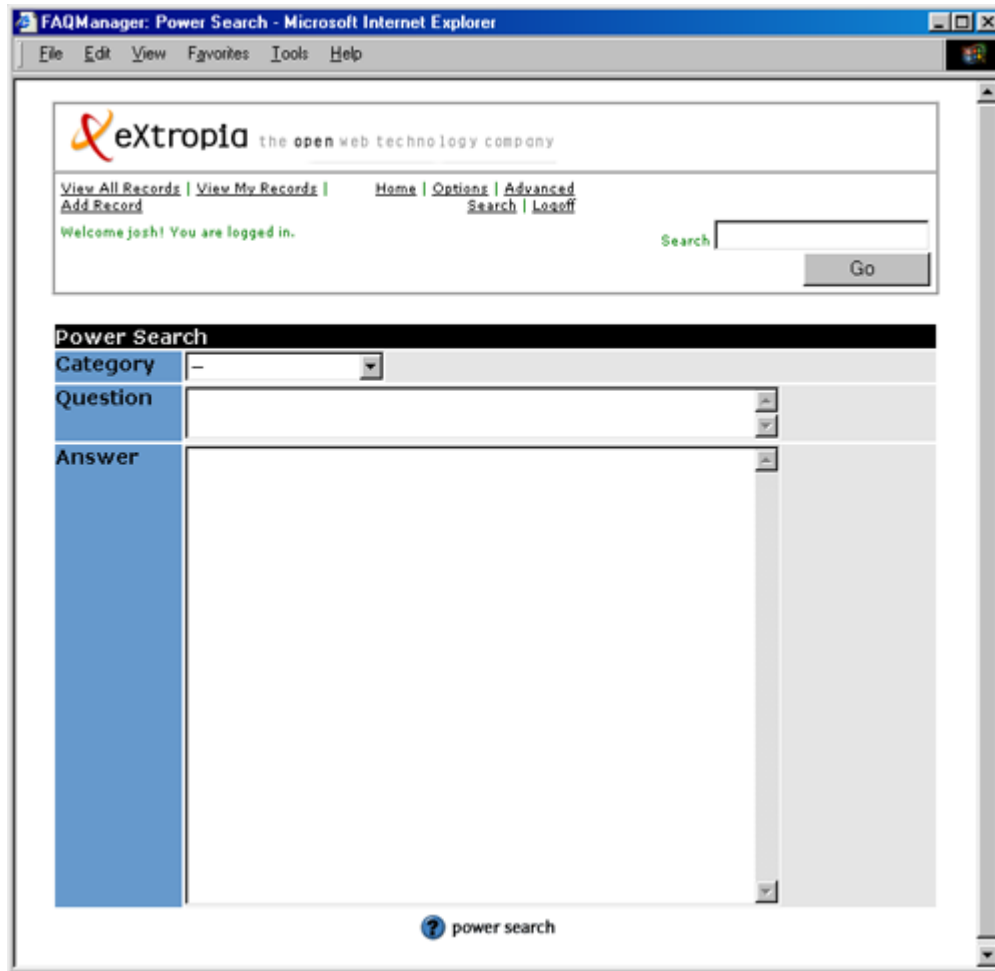


- **Add/Modify Record Acknowledgement View** will be displayed after a record is added to let the user know that the action was successful. Not available by Default.
- **Modify Record form** will allow the user to edit the details of his records. It is the same as Add Record
- **Delete Record Button** permits deletion of records.
- **Delete Record Confirmation Page** will display details for final confirmation before deleting the record. Not on by default.
- **Delete Record Acknowledgement Page** displayed after successful deletion. Not on by default.

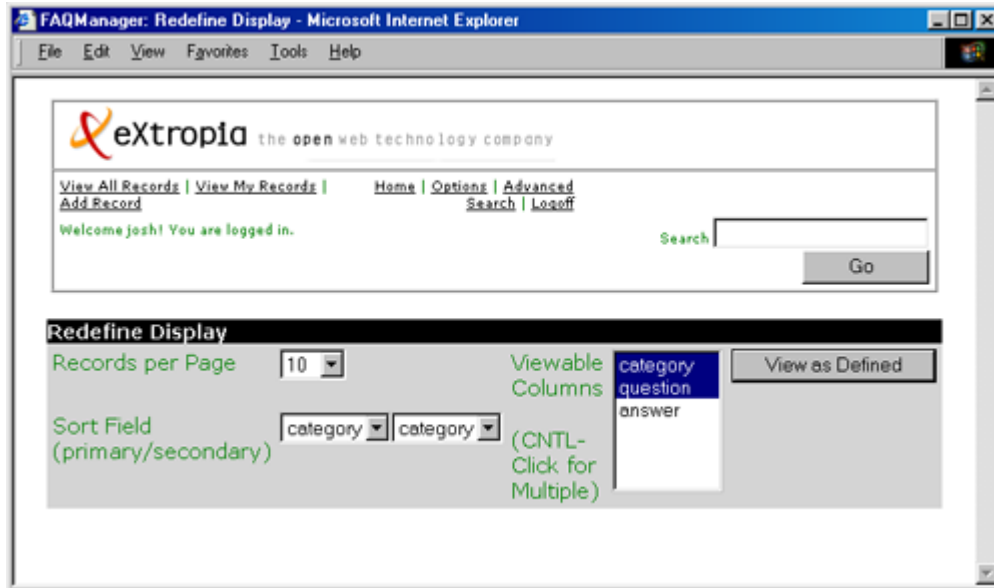
**Common Features Definitions**

- **Basic Search** permits any user to search the database based upon keywords. Available in the header.

- **Advanced Search** permits any user to search the database for any or all of the available fields.



- **Options View** permits the authenticated user to alter Records Displayed per Page, Two Sort Fields, and which Columns to View. Upon pressing View as Defined, the user will see the records as desired. The Viewable Columns will vary according to Application.



### 3.1.2 Risks and Dependencies

## 4 Database Design

### 4.1 Description

The data of the application will be stored in a flat file. Each data fields of a record will be separated by '|'.

Field Name	Description
record_id	Record value
category	Category
question	Question title
answer	Answer to the question.
username_of_poster	Userid of login user who posted this record
date_time_posted	Date and Time posted of record

### 4.2 Communications Interfaces

## 5 Other non-functional attributes

### 5.1 Reliability

Highly reliable in a properly secured environment.

## 5.2 Maintainability

Requires little maintenance. Owners will want to clear out a large flatfile now and then as well as ensure their installation is secure from hackers. Users of relational databases will probably not need to clear out their database.

A modular architecture provides easy maintenance and upgrades.

## 5.3 Portability

The application may be used on any architecture where Perl is used.

## 5.4 Extensibility

Information entered via FAQ Manager is portable to any relational database. The program can easily be switched to a new database with just a few lines of code. The program relies on the eXtropa ADT that divorces form and function.

## 5.5 Reusability

FAQ Manager is highly reusable. The application can be modified for just about anything!

## 5.6 Serviceability