

ADT: WebNews Version 1.0

Requirements Specification

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Document Revisions

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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 WebNews application. This document provides 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 WebNews application. This specification does not extend to third party or infrastructure components.

1.3 Overview

The basic requirements summary build-in for the WebNews application:

- To be able to view news items in item by item view and in full.
- To be able to add and remove news items via NewsManager in default view

1.4 Business Context

WebNews is a groupware application designed for multiple users over a wide area. It is well suited to the decentralized organization or for teams frequently on the go. 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 WebNews will ultimately benefit both the company and our users.

2 General Description

2.1 Product Functions

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

2.2 General Constraints

The application is written as a public viewing board, but not a public message board. No login is required for viewing information. A login is required to add information.

The application will be written in Perl and the data files are stored in a common flatfile 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
Language	Perl	
Session Setup		
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	
Authentication Setup		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	
Authentication Manager Setup		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	WebDB Demo	
HTTP Header Params	[-EXPIRES => '-1d']	
Document Root URL	'/' or web root directory	
Image Root URL	/Images/Extropa	
Script Display Name	'Address Book'	
Script Name	\$CGI->script_name()	
Page Top View	NewsPageTopView	
Page Bottom View	PageBottomView	

Link Target	'_self' or current window	
<i>User_Fields</i>	Auth_username, auth_password, auth_groups, auth_firstname, auth_lastname, auth_email	
<i>Mail Params</i>		
Type	Sendmail	Default on most systems
<i>User Mail Send Params</i>		
From	you@yourdomain.com	
Subject	Password Generated	
<i>Admin Mail Send Params</i>		
From	you@yourdomain.com	
To	you@yourdomain.com	
Subject	Registration Notification	
<i>Auth Manager Config Params</i>		
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	
Data Handler Setup		How data is handled
<i>Add Form DHM Config</i>		
Type	CGI	
CGI Object	\$CGI	
Data Handlers	Exists, HTML, String	
Field Mappings	Fname, lname, email, category, phone, comments	
Datasource Setup		Configure the database and fields displayed
Field Names	Record_id, subject, abstract, full_text, username_of_poster, group_of_poster, date_time_posted	Corresponds to default extropa database
<i>Sample Default Widget Definitions</i>		
Display Name	Country	Name that appears in the browser
Type	Textfield, textarea	
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
<i>Basic Datasource Config Params</i>		
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
Mailer Setup		Required for regular email. Not the same as Auth Mailer
<i>Mail Config Params</i>		
Type	Sendmail	
<i>Email Display Fields</i>		Email these fields
<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	Address Book 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	Address Book 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	Address Book Modification	
Logging Setup		
Type	File	
Log File	\$APP_DATAFILES_DIRECTORY/\$APP_NAME og	
Log Entry Suffix	' ' . _generateEnvVarsString() . ' ',	
Log Entry Prefix	'AddressBook '	
View Setup		Views to use, display, and defaults
<i>Valid Views</i>	CSSView, BasicNewsView, NewsDetailsRecordView	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	WebDB Demo	
Color for Even Rows	E5E5E5	
Color for Odd Rows	FFFFFF	
Display Fields	subject, abstract, full_text,	
Table BG Color 1	6699CC	
Table BG Color 2	E5E5E5	
Table BG Font Color1	BLACK	

Table BG Font Color2	BLACK	
Filter Setup		
<i>HTMLIZE Filter</i>		
Type	HTMLize	
Convert Double Linebreak to P	On	
Convert Linebreak to BR	On	
<i>Charset Filter</i>		
Type	CharSet	
Embed Filter		
Type	Embed	
Enable	<code>\$CGI->param('embed') 0</code>	
Action/Workflow Setup		
<i>Action Handler List</i>	Defaults	User should not need to modify
<i>Action Handler Action Params</i>		
Action Handler List	<code>\@ACTION_HANDLER_LIST</code>	
Add Acknowledgment View Name	AddAcknowledgementView	
Basic Data View Name	BasicNewsView	
CGI Object	<code>\$CGI</code>	
CSS View URL	<code>\$CSS_VIEW_URL</code>	For speed, change CSS URL to a location outside the CGI directory.
CSS View Name	CSSView	
Datasource Config Params	<code>\@DATASOURCE_CONFIG_PARAMS</code>	
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->param('records_per_page') 5</code>	
Sort Field 1	<code>\$CGI->param('sort_field1') 'category'</code>	Sort by which field?
Sort Field 2	<code>\$CGI->param('sort_field2') 'fname'</code>	Sort by which field?
Sort Direction	<code>\$CGI->param('sort_direction') 'ASC'</code>	ASC=Ascending, DSC=Descending
Default Sort Field 1	Date_time_posted	
Default Sort Field 2	Subject	
Details View Name	NewsDetailsRecordView	
Data Handler Manager Config Param	<code>\@DATA_HANDLER_MANAGER_CONFIG_PARAMS</code>	
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	\@MAIL_CONFIG_PARAMS	
Modify Form View	ModifyRecordView	
Modify Email Body View	ModifyEventEmailView	
Power Search View	PowerSearchFormView	
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	NewsPageTopView	
Page Bottom View	PageBottomView	
Action Handler Plugins	\%ACTION_HANDLER_PLUGINS,	

3 Functional Requirements

3.1 WebNews Application

3.1.1 Description

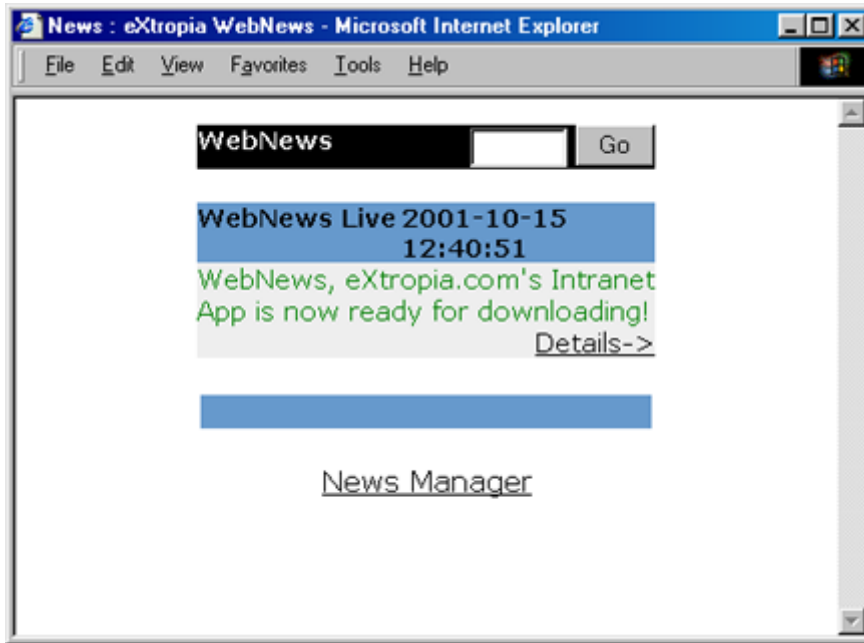
Authentication Definition Views

There is no authentication required for WebNews. It is a public viewing board. See WebNews Manager for information on entering information and logging in.

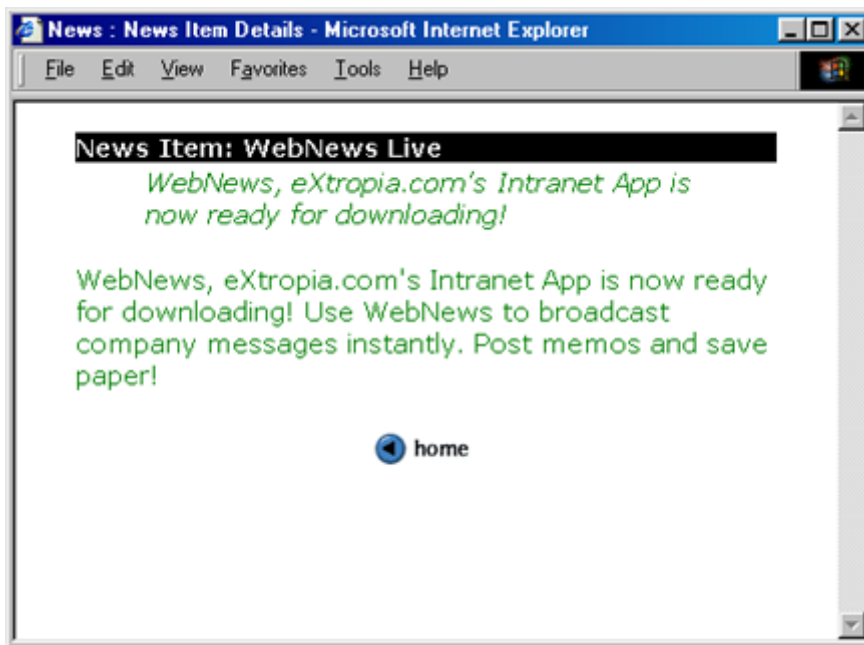
Application Specific View Definitions

No login is required. There are only two views, both with links to the News Manager.

- **Abstract Display View** displays the most recent articles. It shows the title, the date posted, and the abstract. There is a link on each item to the full article. If more articles exist then are able to be displayed, a link to the other articles is displayed. A keyword search is available. A link to News Manager is available for authorized users.



- **Full Article View** shows all information for that news item. This includes the abstract and the full text of the news item. The subject, abstract, and full text are displayed. There is a link to home.



Common Features Definitions

There are no common features available.

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	Data Type
record_id	Record value	Auto incremental numericvalue
subject	Subject of event	char
abstract	Brief text of event	char
full_text	Full text of news item	Char
date_time_posted	Date posted	date
Username_of_poster	Username of Poster	Char
Group_of_poster	Group of Poster	char

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.

5.3 Portability

Dependent upon the database chosen and the needs required.

5.4 Extensibility

Information entered via WebNews 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

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

5.6 Serviceability