

ADT: WebNews Version 1.0

Requirements Specification

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|--|-----------|----|
| 1 Introduction | 4 | |
| 1.1 Purpose of this document | | 4 |
| 1.2 Scope of this document | | 4 |
| 1.3 Overview | | 4 |
| 1.4 Business Context | | 4 |
| 2 General Description | 4 | |
| 2.1 Product Functions | | 4 |
| 2.2 General Constraints | | 4 |
| 3 Functional Requirements | 9 | |
| 3.1 WebNews Application | | 9 |
| 3.1.1 <i>Description</i> | | 9 |
| 3.1.2 <i>Risks and Dependencies</i> | | 11 |
| 4 Database Design | 11 | |
| 4.1 Description | | 11 |
| 4.2 Communications Interfaces | | 11 |
| 5 Other non-functional attributes | 11 | |
| 5.1 Reliability | | 11 |
| 5.2 Maintainability | | 11 |
| 5.3 Portability | | 11 |
| 5.4 Extensibility | | 11 |
| 5.5 Reusability | | 11 |
| 5.6 Serviceability | | 12 |

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

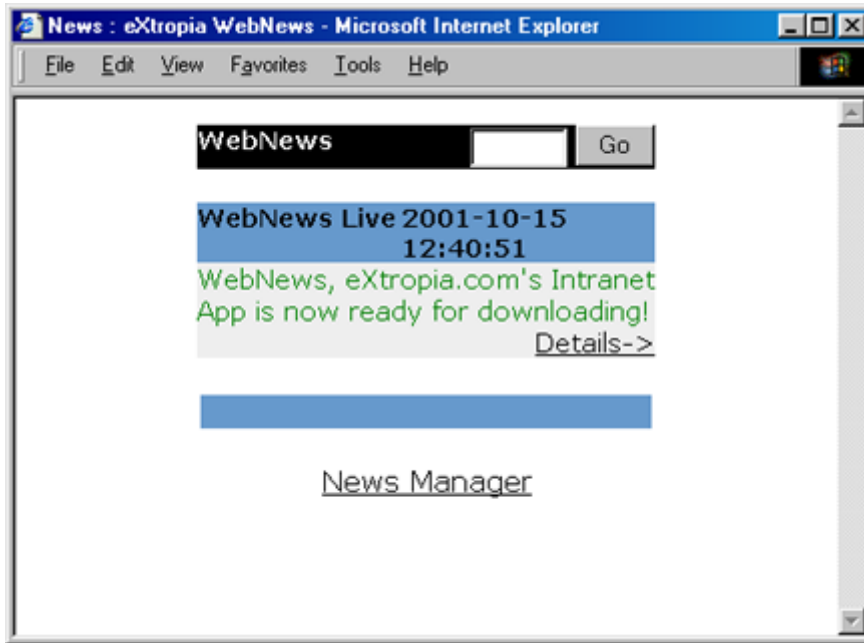
Authentication Definition Views

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

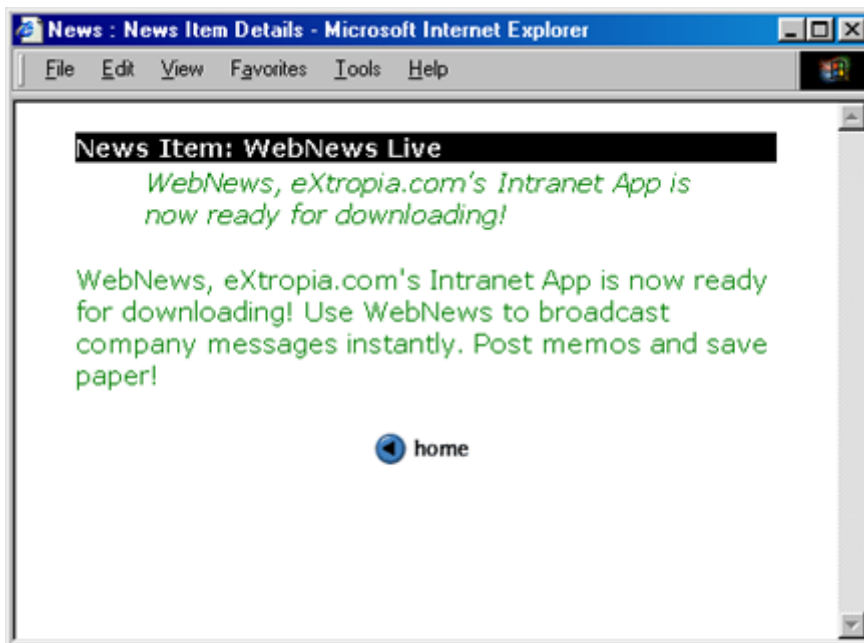
Application Specific View Definitions

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