DynamicNotice

A DynamicXport Module

User Guide

Revision 1.4

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General

Product Definition

DynamicNotice is a general information posting and distribution system implemented with DynamicXport to provide an Internet accessible messaging system. It supports the posting of messages with both text and images. The information can even be posted as an html page automatically uploaded to the web server.

DynamicNotice supports scheduling when a notice will become available to users, when it will be removed, and which users will be able to view the new notice.

Product Components

dnadmin.dl4

This is the main component of the dynamicXport based application. It services all of the user's interactions under DynamicXport options.

dncreate.dl4

This builds the initial database supporting dnadmin.

Installation and Setup

Installation of software

DynamicNotice is optionally installed as a part of the DynamicXport product .

DynamicNotice Setup and Configuration

dncreate.dl4

When running dncreate, the default settings for the configuration file dnsystem.txt can be modified. The parameters most likely to be varied depending on the use of DynamicNotice are the labels for the reference fields and the notice type headings. These should reflect the usage of these data fields as indicated in the documentation on posting notices below.

The following shows an initial run of the dncreate utility.

```
#dncreate.dl4
DNCREATE: Building News Server Database

The system control file (dnsystem.txt) has been created.

You can view/edit using the editor defined in your EDITOR environment
variable.
If no editor is defined, vi is used.
Use the editor commands to edit or save changes and return to finish the
install process.

Do you want to view/edit the dnsystem.txt file with UNIX editor? [Y/N] n

Creating database files for DynamicNotice Server!
Building: <600> dnfiles/dnnews!
Building: <600> dnfiles/dnsections!
Building: <600> dpfiles/dnqueue!
Building: <600> dpfiles/dnusers!
DynamicNotice Server database files created!
```

When run subsequent to the initial setup of the database, dncreate backs up the existing database before building new datasets. The following appears prior to “Creating database files…”

```
Backing up old database files to olddnfiles/ !
Copying dnfiles/dnnews.dbf olddnfiles/dnnews.dbf
Copying dnfiles/dnsections.dbf olddnfiles/dnsections.dbf
Copying dnfiles/dnqueue.dbf olddnfiles/dnqueue.dbf
Copying dpfiles/dnusers olddnfiles/dnusers
```

These backup files overwrite previously created backup files created by dncreate.

Using DynamicNotice

Administration

The administration of DynamicNotice News Articles is managed by two options, “Articles” and “Sections,” under the sub-menu of “News Administration” in the dynamicXport main menu. Access to these options is limited by dynamicXport to specific privileged users. The general user is serviced by the “View News Articles” and “Check for new Notices” options in the dynamicXport main menu.

Setting up Sections

DynamicNotice utilizes DynamicXport’s user management and organizes news articles by association of articles within sections. Sections are associated with DynamicXport’s organization ID’s. Articles may be viewed by members of organizations linked to the section under which an article is posted. Sections might reflect the departments of a company such as Human Resources, Marketing, Administration, Production, Shipping, Accounting and so on. They could also serve as sections of the news such as World, National, State, Local, Entertainment, Business, Advertising.

To set up the sections, select “News Administration” from the main menu and then select “Sections” from the sub-menu. This will open the “Sections” page. Select the “Add Another” button and you will open the “New Section” entry page where you can associate the new section with a particular DynamicXport Organization ID and enter it’s description. Then select the “Save” option to complete the entry of the new section.

The application returns after saving the new section entry to the Sections page where all the sections defined are displayed. To modify any already defined sections, the “Edit” function can be selected.

Adding Records

To post a new article select the “News Administration” from the main DynamicXport option menu and then select the sub-menu entry “Articles”. This will open the page displaying all existing articles. This page has functions for adding new articles or editing and deleting existing articles.

Existing article records can be sorted by Article ID, Section ID, Start Date (ascending or descending), Description, or Author. The page has a series of key entry fields for searching and selecting articles by Section, Description, Author, and two customizable reference items and within a posted date range.

The addition of new records is done by clicking the “Add Article” button. This opens the page used for editing, deleting or adding an article with the article ID, section ID, author, and posted date fields filled in and other blank fields to fill in. The Start date is defaulted to the current date. Remove Date and either File or Article Text are required. The article description should be entered because this is the only way (other than the article ID) to distinguish one article from another. The reference fields and Image File fields are optional.

The Article ID is automatically generated; but can be changed to any unique value. The Section ID can be selected from the drop down list. Author is automatically set to the user’s ID.

The Description field serves as the article title or “headline” when it is displayed. In entering the Description, remember that, while it is not required to be unique, it is used as a search field.

There are four reference fields for user defined data to further facilitate searching and grouping articles. They can contain data items such as account numbers, categories like “insurance” or “investing,” or event dates and venues; whatever is useful for the users.

The next two items are dates, the Start Date and the Remove Date. The posted article will only be viewable by the users from the Start Date through the Remove Date. This allows the author to postpone the first viewing of the article until a specific future date. These are best entered by clicking on the calendar button and finding the desired date for the field.

The remaining entry fields setup the content for the article with two possible options. The first is where the article has been created in an HTML page; and, in this case, enter its file name and path in the “File” entry field. There is a browse button to find and select the html file.

The other option for the article is where text of the article can be entered directly in the “Article Text” field. Enhancing this choice is the additional option of adding an image file by entering its path and name in the “Image File” field. Again, this is facilitated by a browse button for selecting the image file.

After entering the article information in this form, select the “Save” button to post the article. When this is done, in addition to entering the article information in the application database, the selected files are uploaded to the server. When a posted article record is edited, the path information will be gone because the referenced files will be in dedicated folders on the web-server.

An image file can also be added to an article which is implemented with an HTML web-page. Edit the HTML file to add the <img src=“imagefilename”> in the appropriate place in the page. Then, just enter the desired image’s path and filename in the “Image File” field when the article is posted.

Once an image file has been loaded for any article, it can be used by other articles done as HTML pages by simply adding the html code to load the image into the page. However, some care must be taken to keep the image filenames unique or an image loaded for one article might be overlaid.

Editing Records

Any of those displayed can be selected for editing by clicking the “Edit” button in the far right column. This causes the record details for that posted article to be displayed. Other than the article ID, author, and date posted fields, all fields are editable.

Section ID: Editing this field can change the groups of users who can view this article.

Description: Editing this field could change its sorting sequence for those viewing articles.

Start date: Editing this field will change the first date the article is viewable and will cause the queue entries for this article to be changed.

Remove date: Editing this field will change the date the article will become un-viewable.

File: Editing this field will cause a different html page to be selected for the article. If a new page needs to be uploaded, it may be best to delete the article and re-add it.

Image File: This field identifies an image file already uploaded.

* Note that files to be uploaded to the server must have names which conform to the file naming requirements of the server. The upload will fail, for example, if the server is a UNIX platform and the selected file on the PC has a space in its name.

Article text: This is an alternative to entering an html page for the File field. It can be edited as needed.

When an article record is edited certain changes, such as in the date fields, will cause it to be re-queued. Others will not. To be certain that a changed article is viewed by all who have access, the check box to "Re-notify all users" must be checked.

Deleting Records

From the same News Administration/Articles page used to initiate posting articles the "Edit" button can be clicked for any of the displayed article records.

To delete the selected article record, simply click the "Delete" button.

Viewing the News Articles

There are two options to view the news articles, "View News Articles" and "Check for new notices".

"View News Articles"

"View News Articles" retrieves a page listing of news articles (up to 50 at a time) which are currently viewable by the user. Currently viewable means the current date is in the range from the article's Start Date through its Remove Date and the article's Section ID makes the article accessible because its associated Organization ID is either the same as the user's or the user's is a descendent in the Organization tree hierarchy. With this option all qualified articles are displayed whether or not they have been previously seen by the user.

This page provides search and sorting options for finding specific sets of viewable articles. This page lists the articles with their posting dates, section ID's and descriptions. It provides two ways of accessing the article's contents. The first is by clicking on the article description which brings up the individual article in a pop-up screen. The other is by selecting one or more articles for viewing by checking the select check-boxes in the rightmost column and then clicking on the “Submit” button. This pops up a window displaying the first of the selected articles with a drop-down list of all the selected articles to select the one to be displayed. A “Close Window” button returns to the View News screen.

“Check for new notices”

“Check for new notices” scans a queue of new notices and pops up a window displaying the first of these with a drop down list containing all of the notices not yet viewed. The user can view these selecting from the list. All of the notices listed are removed from the queue and will not be displayed as new for this user again.

Making html notice pages

Creating an html notice page for a news item can be done in a variety of ways. One of the simpler ways is to use MSWord®. Just enter the text in MSWord® and save it as a web-page. The notice is ready for uploading and posting to the DynamicNotice notices.

Any other html page building tool can be used to make it easy to manage various fonts and layout. However, imbedded image files handled automatically by the tool can not be handled automatically by the upload functions of DynamicNotice.

Developer Notes

The dnadmin.dl4 application is set-up as a callable dynamicXport utility permitting it to be called from any user developed application as an external module. To utilize this utility, add these declarations to your dl4 code:

```
External Lib “dnadmin.dl4”
Declare External sub dnadmin
```

Then, in the application code, set up the desired parameters with calls to DXSet(0, …) for the option, action, and associated inputs and call the external sub dnadmin. After returning from the call, the application can do DXGet(1,…)’s to retrieve the data from dnadmin or DXSet(“output”,…) to a dynamicXport html page and execute a DXClose call before exiting to display the page.

For example to perform a SEARCH of notice records :

```
Call DXSet(0, “option”, “dn”)
Call DXSet(0, “action”, “search”)
Call DXSet(0, “ssection”, “ALL”)       !optional, default is ALL, select section
Call DXSet(0, “sdesc”, “description”) !optional, defaults null, match description
Call DXSet(0, “sauthor”, “userid”)     !optional, defaults null, match author’s ID
Call DXSet(0, “sref1”, “reference”)    !optional, defaults null, match reference 1
Call DXSet(0, “sref2”, “reference”)    !optional, defaults null, match reference 2
Call DXSet(0, “sref3”, “reference”)    !optional, defaults null, match reference 3
Call DXSet(0, “sref4”, “reference”)    !optional, defaults null, match reference 4
Call DXSet(0, “keyno”, “1”)            !optional, default is 2, determines sequence
Call DXSet(0, “stype”,  “N”)           !optional, default is N for News Articles
Call DXSet(0, “max”, “10”)             !optional, default is 50 maximum records
Call DXSet(0, “clearnew”, “Y”)         !optional, to clear new notices from queue
Call DXSet(0, “includealltext”, “Y”)   !optional, to include text of all text notices
Call dnadmin()
Call DXGet(1, “filecnt”,Filecount$)        !count of notice records found
Call DXGet(1, “orgid”,OrgID$[])
Call DXGet(1, “section”,Section$[])
Call DXGet(1, “desc”,Desc$[])
Call DXGet(1, “type”,Type$[])
Call DXGet(1, “noticeid",NoticeID$[])
Call DXGet(1, “author”,Author$[])
Call DXGet(1, “authorname”,Authorname$[])
Call DXGet(1, “posted”,Posted$[])
Call DXGet(1, “lastdate”,LastDate$[])
Call DXGet(1, “nextdate”,NextDate$[])
Call DXGet(1, “remove”,Remove$[])
Call DXGet(1, “filenames”,Filenames$[])
Call DXGet(1, “filetype”,Filetype$[])   !H=html, T=text
Call DXGet(1, “imgfiles”,Imgfiles$[])  ! path/filename to image file on webserver
Call DXGet(1, “new”, New$[])           ! Y indicates it is a new notice
Call DXGet(1, “filename”, Filename$) !1st filename on the list only
Call DXGet(1, “imgfile”, Imgfile$)     !1st image filename on the list only
Call DXGet(1, “keynext”, Keynext$)   !null if EOF or next key to continue list
```

This will return list of up to 50 notice records into arrays Dim’d as follows (it does not return the actual text of the notice) :

```
Dim OrgID$[50,8], Section$[50,8], Desc$[50,60], Type$[50,1], NoticeID$[50,8],
Author$[50,8], Authorname$[50,30],Posted$[50,20], LastDate$[50,20],
NextDate$[50,20],Remove$[50,20].Filenames$[50,200],Filetype$[50,1],
Imgfiles$[50,60],New$[50,1],Filename$[50],Imgfile$[50],Keynext$[50]
```

If the ‘includealltext’ option is set to Y, then you can also retrieve the text of all the text type notices. If Filetype$[5]=”T”, meaning the sixth notice (starting at zero) is a text type notice, to retrieve the text of the notice do as follows:

```
Dim noticetext$[50,100]
Call DXGet(1, “noticetext5”,noticetext$[])
```

If the ‘includealltext’ option is not set to Y, then you can only retrieve the text of the first notice, noticetext0.

The inputs described above with DXSet calls can also come from a custom html page which is linked to the custom application via a configured option. The custom application would then contain something like this:

```
Call DXSet(0, “option”, “dn”)
Call DXSet(0, “action”, “search”)
!see above for other optional settings
Call dnadmin()
Call DXSet(“output”, “dncustom.html”)
Call DXClose()
```

The custom html page can then access the results with dl4a and dl4v parameters. (Scripting may be required to display notice text.)

Note: The dnadmin Call requires S_UserID and S_OrgID. If testing in standalone mode, be sure these values are set in your input text file.

Subsequent calls to dnadmin with keynext set to the last key value in the prior retrieval will allow the custom application to scan through remaining notice records.

The keyno parameter can be varied to select the sequencing of the notice record information returned. In addition to the above example, keyno set to 1, which would be sequenced by NoticeID, by setting keyno to 2, 3, 4, 5 or 6 records will be returned sequenced by sectionID, start date, description, author, or reverse date sequence by NoticeID respectively.

To search only for notices which are in the ‘not yet read by user’ queue, the action is set to ‘new’ as follows:

```
Call DXSet(0, “option”, “dn”)
Call DXSet(0, “action”, “new”)
!see above for other optional search settings
Call dnadmin()
```

The output results for action=new are identical to the output results of action=search described above.

To simply check to see if there are any notices in the ‘not yet read by user’ queue :

```
Call DXSet(0, “option”, “dn”)
Call DXSet(0, “action”, “checkfornew”)
!see above for other optional search settings
Call dnadmin()
```

The output results for action=checkfornew is one field ‘dnnew’ set to ‘Y’ if true.

The following shows the setup to retrieve one or more specific notice IDs, using the “select” action.

```
Call DXSet(0, “option”, “dn”)
Call DXSet(0, “action”, “select”)
!see above for other optional search settings
Call DXSet(0, “keyvar0”, “<1st  notice type><1st  noticeID>”)
Call DXSet(0, “keyvar1”, “<2nd notice type><2nd noticeID>”)
Call DXSet(0, “keyvar2”, <3rd notice type><3rd  noticeID>)
Call dnadmin()
```

The output results for action=select are identical to the output results of action=search described above.

New records can be added with the save action. The following parameters need to be set before the save call to dnadmin.

```
Call DXSet(0, “option”, “dn”)
Call DXSet(0, “action”, “save”)
Call DXSet(0, “noticenewid”,NoticeID$) ! optional, default will assign a
sequential ID,   Unique new NoticeID
Call DXSet(0, “sectionid”,SectionID$) ! any existing section ID
Call DXSet(0, “desc”,Desc$) ! description/title/subject of notice
Call DXSet(0, “start”,Start$)  ! In a standard date format mm/dd/yyyy
Call DXSet(0, “remove”,Remove$) ! In a standard date format
Call DXSet(0, “type”,Type$) !optional, default “N” news article, notice type
Call DXSet(0, “REF1”,Ref1$) ! optional
Call DXSet(0, “REF2”,Ref2$) ! optional
Call DXSet(0, “REF3”,Ref3$) ! optional
Call DXSet(0, “REF4”,Ref4$) ! optional
Call DXSet(0, “S_FILEUPLOAD_IMGFILENAME”,ImageFile$) ! optional
```

Then either

```
Call DXSet(0, “S_FILEUPLOAD_filename”,FileName$) ! path of html page file
on webserver
```

Or

```
Call DXSet(0, “noticetext”,NoticeText$) ! message text for notice

Call dnadmin()
```

Supporting Files

DNSYSTEM Parameters File

The DNSYSTEM text file "**dnsystem.txt**" contains the global configuration parameter settings for DynamicNotice. The file is a text file maintainable with any text editor. The file is located on the application server in the same directory as the DynamicNotice application programs. The format of the file is Parameter Name = Parameter Setting. The parameters are as follows :

FILETYPE	=	F=FoxPro Full-ISAM (default)
		S=Microsoft SQL (not supported)	

WEBDIR	**=**	dn/articles	Directory to find published html files and images on Web Server
FILESDIR	=	dnfiles	Directory to find DN files on Application Server
SECTIONS	=	dnsections	Filename for News Article Sections file
NEWS	=	dnnews	Filename for Notice Control file
QUEUE	=	dnqueue	Filename for Notice Queues
LBLARTICLE	=	News Article	Terminology to be used when referring to 'News Article' type notices
LBLREF1	=	Reference1	Search field label
LBLREF2	=	Reference2	Search field label
LBLREF3	=	Reference3	Search field label
LBLREF4	=	Reference4	Search field label

Appendix A – Directory Lists

Files List

Filename	Purpose
dx/dn/dnadmin.dl4	dxport application supporting all notice options
dx/dn/dncreate.dl4	stand-alone to create, backup, initialize database
dx/dn/dnsystem.txt	Control parameter file

HTML Files List

Standard HTML files delivered with DynamicNotice

Filename	Purpose (page to)
dx/dn/dncheck.html	set request to view new notices
dx/dn/dndisplay.html	display selected or new text notices in a popped up window
dx/dn/dnnewspr.html	display currently viewable notices to select for viewing
dx/dn/dnpostmnt.html	enter a new or edit an existing notice’s record
dx/dn/dnpostpr.html	display all notices for editing and for adding new ones
dx/dn/dnsectionmnt.html	enter a new or edit an existing section definition
dx/dn/dnsectionpr.html	display all sections for editing and for adding new ones
dx/dn/dnselect.html	display selected or new notices (text) in a popped up window

Image Files List

Filename	**Purpose**
dx/dn/images/searchby.gif	

Stylesheet Files List

dx/styles/dxstd.css