Developing NewsFlash

Overview

NewsFlash is an independent program (separate from the EBB) designed to facilitate the timely and efficient updating of programs; it does this over the Internet (by either a dial-up connection or across the enterprise network) transparently from users. Required procedures are specified by developers at the outset in a commonly accepted language and by using established programming conventions.

This chapter covers standard NewsFlash features such as its dynamic updating functionality; this takes place automatically and is invisible to the user. Sleep mode works to keep this functioning. The strength of this attribute is that the partner enjoys the latest, most valuable feature set found in the most recent version of the program suite they have selected—all of this without having to worry about performing updates.

It works with EBB by using the .met file, which communicates between the Registry and the server. Each EBB tab has its own Registry key, which is used by the sniffer component of NewsFlash in obtaining information it needs to update in the system to keep its programs current.

NewsFlash Functions

NewsFlash performs two key functions:

- Like its distant predecessor WebSniffer/Intercom.exe, NewsFlash offers an automatic display of a dynamic, HTML-based splash screen. Basic settings are required in the Windows Registry. All listed keys must be set up initially by the installation program.

- Automatic downloading of program updates and their applications happens without the user's previous request. For example, when the user clicks on the extension XIC (either locally or on theWeb site), the program changes the file extension to EXE (after downloading it from the Web site, if it is not a local file), run the EXE file, and it shuts itself down automatically.
  In the second instance (auto downloading), the user can abort the download if it is not a local file. When WebSplash closes itself in this manner, ShowAppDialog() will return the value TRUE. If the user initiates shuts down of the splash screen, ShowAppDialog() will return FALSE.

☞ **NOTE:** When certain link text is clicked, Windows-based messages are sent to the container dialog box. Any link possessing the Command-C will be checked for these requests.

- So far, we support Maximize and Exit. Examples of these are listed below:

Maximize window

<a href="Command--Exit">Close window<a/>

Recent Enhancements

The most prominent strength of NewsFlash technology is its proactive nature. Its functions obtain new information actively to update the program "on the fly"—continually at regular intervals based around parameters that the development team itself selects. Specific examples of this are provided below.

Following is a list of recent further improvements, placed in their relative order of importance.

- ZIP File-Updating
  Explanation: Zip file updating is used to greatly reduce the time necessary to download the file. Using the standard ZIP file functionality, the application detects whether it has previously downloaded a ZIP file, checks the file's internal integrity, and unzips the file using the unzipped file's individual components.
  Explanation: This facilitates the dynamic updating and efficient management of NewsFlash contents. This is because so many items are necessary in transferring a large number of constituent files together.
  This process will further expedite the file download process since it supplants the earlier, more cumbersome upgrade process. For this and other reasons, it will be less of a burden on the user's computer, thereby further enhancing system's speed.

- Implementation of NewsFlash as a "tray application" (found on the Tray, the lower-right hand corner display of program icons) these can be turned off by right-clicking on the mouse and selecting 'Exit' using the Tray Control. This makes it convenient for the user to turn on/off or exit altogether.
  Explanation: Presently, NewsFlash exists in the form of a modified window application. This has been known to cause visually annoying "flashes" upon booting up. This window sometimes remains visible, as a bug, to viewers.

- Broadband-Capable
  Explanation: The bridge has been adapted so that it can best exploit today's broadband standards. This includes the following: DSL, cable modems, LAN connections, etc. Previously, dynamic updating could not be done over network connections. Elibrium exploits the fast speed that these technologies make possible.

How NewsFlash Works with EBB

NewsFlash regularly provides current program information to the EBB. Its job is to act as an intermediary between EBB on the server and the Registry on the user's computer. It works using keys found in the Registry and an individual servers. The following sections will describe components of NewsFlash in action.

MET Files Working with NewsFlash

With the MET control files, NewsFlash compares the Registry key settings of each program (indicated by its UI tab) residing in the EBB. MET files work to ensure that current program information is made available to each EBB component program during every designated time interval. (This interval is established by settings in the Sleep mode.)

There are several key-value pairs found in the NewsFlash keys, as shown in Table 1 below.

Table1: INewsFlash and EBB Key-Value Pairs

Key	Type	Usage
CheckAfterDate	REG_BINARY	NewsFlash will not check for the application unless the current time is later than (after) this value.
Directory	REG_SZ	Names the directory where the downloaded files are to be stored.
Document	REG_SZ	Names the initial document to check for and download.
HostName	REG_SZ	Names the host site, in this case, (www.careersteps.com).
LastRetrieval	REG_BINARY	Tracks time of most recent successful download (SYSTEMTIME structure).
TempDir	REG_SZ	Names the directory to use for temporary storage of partially downloaded material.

Following is the sequence of code establishing these commands in each tab:

```
Tab1
Width=640//width of Splash screen//
Height=480//height of Splash screen//
Countdown=5
HostName=www.CareerSteps.com
Document=
SleepTime=30//Number of seconds NF waits before checking for updates again//
Files=2//number fo files to be downloaded//
File0=/ScanTW/BANNERS.HTM//first file to be downloaded (full pathname)//
Name0=BANNER.HTM
File1=/ScanTW/MARSONE.GIF//second file (full pathname)//
Name1=MARSONE.GIF//second file (just filename)//
```

Please note that this same basic sequence of code is found in each tab.

Height and Width values are installed initially by NewsFlash into the corresponding NewsFlash Registry settings. NewsFlash uses these to position the initial splash screen and make any necessary adjustments.

The Countdown, Document, and HostName fields also result in modifications to the Windows Registry. Countdown is used by NewsFlash. Document and HostName are used by NewsFlash itself as it determines where to find the control file during a download. A control file can alter the host name and control file document name by specifying either or both of these fields. The next time NewsFlash checks for new data, it uses the new HostName and Document settings.

Note: the install enters the NewsFlash settings for the EBB and each of its tabs.

NewsFlash Registry Settings

NewsFlash uses HKEY_LOCAL_MACHINE/SOFTWARE/MYSoftware as the root key for all of its operations. A key for each application is found below each address style, and within each application should be found an appropriate key for NewsFlash.

Table 2. NewsFlash Control Registry Settings

Key	Type	Usage
CheckAfterDate	REG_BINARY	NewsFlash willl not check for the application unless the current time value is larger (later than) this value. (SYSTEMTIME structure)
DeleteMe	REG_SZ	When an update has been completed successfully, it may set this field. NewsFlash detects the indicated file, so the space used by the update program is returned to the user. Once the file has been deleted, this field will be reset.
Height	REG_DWORD	This stores the initial height of dialog box.
Local URL	REG_SZ	This names the local URL to use when displaying the splash dialog for the application. This should be a valid Webster URL, located on your local hard drive.
Width	REG_DWORD	This stores the initial width of dialog box.

NewsFlash first asks the Web site—indicated by HostName—if the file indicated by HostName is the file prompted by Document and has been updated since the time shown by LstRetrieval. An example of these might be the following:

www.elibrium/flash.com

–or–

/ScanTW/banners.met

–or–

02-Oct-97 Thursday 20:07 GMT

Keep in mind, however, that given its binary structure, it will logically appear in this format in the Registry when using REGEDIT.)

The CheckAfterDate key is used by the Sleep component of NewsFlash to track when it can next check for the application on the server.

Sleep Mode

The Sleep Time setting units indicates the number of days it will wait before checking again to find new data. NewsFlash will count this number of days to the current data and time by adding the number. It will then store this data in the CheckAfterDate entry of the registry settings.

If the current date and time are earlier than this value, then the Sleep sensor will not yet start checking for new data for the current application. NewsFlash sets this value to a new value successively after each successful download.

DeleteMe Key

Once the update program has finshed its update routine, it places its complete pathname into the DeleteMe key. Then the next time NewsFlash runs, it checks the DeleteMe key and deletes anything found there.

Return Code

It is not necessary that the return code from the ShowAppDialog() be checked. Presently, the method recommended for addressing the issue of updating actual program files is to have the update program prompt the user. It was designed to do this in order to make sure the program has been terminated before proceeding with the update process.

Known Issues

There are currently no outstanding known issues.