

# On-Line News Management System Based on ASP and XML

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**Abstract:** *In handing the news in a website, its efficiency and simplicity is important. The on-line news management system is realized by making use of the extendibility of XML. Using this system, a user can conveniently update on-line news to successfully satisfy the demands of Website news management.*

**Keywords:** ASP; XML; Web; News Management System

## 1 Introduction

In a traditional Website, the contents of news are provided by news editors, then the news is shown on the Website in a specific format. In the mode, there exist shortcomings as bellow.

Firstly, the news is updated constantly. The issue of news will be lagged if each news update passes through news-editors- designers-Website pages.

Secondly, the Website designers have to participate in the news update process. It wastes a lot of human resources. But it is difficult for the news editors to take the responsibility for designing the Website news pages.

On-line news management system will solve these problems. It administrators without any programming ability can update on-line news at any time. The system reduces the workload of the administrators greatly.

## 2 The modules of news management system

The system includes five modules as follows.

- (1) Database module. It contains administrator data file (admin.xml) and news data file (news.xml).
- (2) Logging module. It is used for validating the administrator's identity to ensure system security.
- (3) News management interface. It is used by the administrator to select the functions provided by the system.
- (4) News management module. It is used to add, delete, modify news information.
- (5) Supporting module. It is used to support the news management module.

## 3 System realization

### 3.1 Developing environment configuration

Because the system adopts ASP documents and B/S architecture, the system running environment should be established before programming and debugging.

- (1) Install and configure TCP/IP protocol.
- (2) Install PWS (Personal Web Server) on Windows98/Me/NT4.0 Workstation platform or IIS (Internet Information Server) on Windows Xp/2000 platform.

### 3.2 The establishment of database

The system adopts XML document as the carrier of administrator data and news data, because the XML document have the merits as bellows<sup>[1]</sup>.

- (1) Expandability and designability. A user can define structured documents according to actual need.

(2) The document contents are separated from their display mode. And the manifestation of the browser is abundant.

(3) It can express data from different sources, so it facilitates data exchanging, data sharing, and data integration [2-3].

(4) It facilitates data updating, identification, intelligent searching and reasoning by computer [4].

The database contains two data documents, namely admin.xml and news.xml. The structure of admin.xml document is shown in figure 1.

```
<?xml version="1.0" encoding="gb2312" ?>
- <配置内容>
  <用户名>d652ff4630971b1301c050364226e24a</用户名>
  <密码>d652ff4630971b1301c050364226e24a</密码>
</配置内容>
<!-- 用户名和密码使用MD5加密过 -->
```

Figure 1 The admin.xml encrypted by MD5

The news.xml is used to preserve news data. The news data contain one attribute and four tags as follows.

Attribute newsid: it is the only identifier of each piece of news.

Tag caption: it is used to preserve the caption of each piece news.

Tag from: it is used to preserve the source of each piece of news

Tag time: it is used to preserve the issuing time of each piece of news

Tag content: it is used to preserve the contents of each piece of news

One segment of the news.xml is shown in figure 2.

```
<?xml version="1.0" encoding="gb2312" ?>
- <新闻信息>
  - <news newsid="1">
    <标题>河北研制成功全自动多功能选花机</标题>
    <来源>北国农网</来源>
    <时间>2005-10-1 10:19:28</时间>
    <内容>长期以来,人工选花去杂一直存在着费时、标准化水平较低等问题,如何实现鲜花加工自动化,一直是我国花卉产业的空白点。河北省保定市名优花卉产业科技专家工作站成功解决了这一难题。/ 今年以来,保定市名优花卉产业科技专家工作站围绕花卉产业化生产中的关键技术问题,组织科研人员进行技术攻关,经过半年时间成功研制出全自动多功能选花机。这种全自动多功能选花机采取电脑自动控制,具有电脑与机械部分良好的协调性,可将花卉自动分成五个级别,按照客户的要求,分出不同的长短,分类选花,并自动剔除根部多余的叶子,形成完美的花株。/ 专家认为,这项技术实现了选花过程的电脑自动化控制,并且实现了一机多用,每小时可选花3 0 0 0株,相当于3 0人的劳动效率。/</内容>
  </news>
</新闻信息>
```

Figure 2 One segment of news.xml

### 3.3 Website page programming

#### 3.3.1 Logging page programming

Logging page is used to validating a administrator's identity. Before logging news management page, a news administrator should input his user name and password accurately. The appearance of the logging page is shown in figure 3.

管理员登录	
用户名	<input type="text"/>
密码	<input type="password"/>
<input type="button" value="登录"/> <input type="button" value="重置"/>	

Figure 3 The appearance of the logging page

The ASP code to validate a administrator's identity is as bellows.

```
Dim objXML,loadResult // Define objXML and loadResult
Dim userNameNode, passwordNode //Define userNameNode and passwordNode
Set objXML = server.CreateObject("Msxml2.DOMDocument")
loadResult = objXML.Load(server.MapPath("admin.xml")) //Load admin.xml
```

```

Set userNameNode = objXML.getElementsByTagName("user name ")
Set passwordNode = objXML.getElementsByTagName("password")
If md5(Request("text1")) <> userNameNode.item(0).Text Then //Judge whether the user name exists
    Response.Write ("<strong><font color=""#FF0000"">wrong user name </strong></font>")
Else
    If md5(Request("text2")) <> passwordNode.item(0).Text Then //Judge whether the password is right
        Response.Write ("<strong><font color=""#FF0000""> user name error</strong></font>")
    Else
        Response.Cookies("isAdmin") = "yes"
        Response.Redirect ("news_list.asp") //Jump to the news management page
        Response.End
    End If
End If

```

### 3.3.2 News management page programming

The news management page provides the administrator with the primary information of news data such as ID, news caption. And it provides the links to news adding page, deleting page, modifying page for the administrator. The interface of the news management page is shown in figure 4.

状态	ID号	新闻标题	操作
<input type="checkbox"/>	1	现代制种设备落户弥勒	修改
<input type="checkbox"/>	2	农业部全面部署秋冬种工作	修改
<input type="checkbox"/>	4	山羊疥螨病的治疗	修改

Figure 4 The interface of the news management page

### 3.3.3 Function document programming

The function.asp is used to preserve the functions used in the system such as news management, adding, deleting, modification and two documents of supporting module, namely news\_save.asp and news\_modifysave.asp need to call the functions in this document. The news deleting function and the news adding function are as below.

```

Function addnews(arrnewsInfo) //adding news function
.....
    Dim topicNode, fromNode,newsIdNode,timenode,nrnode// defining the four nodes
    .....
    Set objNode = objXML.getElementsByTagName("news information")
    Set objNode = objNode.Item(0) // establishing a new element
    Set newsInfoNode = objXML.createElement("element", "news", "")
    Set newsInfoNode = objNode.appendChild(newsInfoNode)
    Set newsIdInfo = objXML.createAttribute("newsid")
    newsIdInfo.Text = arrnewsInfo(0)
    newsInfoNode.Attributes.setNamedItem (newsIdInfo)
    Set topicNode = objXML.createElement("element", "caption", "")
    topicNode.Text = arrnewsInfo(1)
    Set topicNode = newsInfoNode.appendChild(topicNode)
    .....
    objXML.save (server.MapPath("news.xml")) //saving the news.xml
    addnews = True
End Function

Function delnews(newsid)
    Dim newsIdList,flag //defining newsIDlist and flag
    Dim objXML, loadResult
    Dim newsNode, I
    newsid = CStr(newsid) // acquiring the ID of the news

```

```

newsidList = getnewsidList
flag = False
For i = 0 To UBound(newsIdList)
    If newsid = newsidlist(i) Then
        flag = True
        Exit For
    End If
Next
.....
Set objXML = server.CreateObject("Msxml2.DOMDocument")
loadResult = objXML.Load(server.MapPath("news.xml"))
If Not loadResult Then
    Response.Write ("loading XML file error !")
    Response.End
End If
Set newsNode = objXML.getElementsByTagName("news information/news")
For i = 0 To newsNode.length - 1
    If newsnode.Item(i).getAttribute("newsid") = newsid Then
        newsNode.Item(i).parentNode.removeChild newsnode.Item(i)
        Exit For
    End If
Next
objXML.save (server.MapPath("news.xml")) //saving the news.xml
delnews = True
End Function

```

## 4 Conclusions

The on-line news management system based on ASP and XML is plain and utilitarian. The administrators can update the news betimes and efficiently. The admin.xml is encrypted by MD5, so the system is safe and credible. The system runs successfully.

## References

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