

SBSH GoNews

Template Development Guide

Updated for version 1.0

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1. Introduction

GoNews is a newsreader application that helps you track feeds from web-sites across the internet directly to your Windows Mobile device. With GoNews you can subscribe to any web-site across the internet that offers an RSS feed including news about the web-site.

Many web-sites today offer RSS feeds and therefore you can easily track news from these web-sites using GoNews easily. However, a lot of web-sites still doesn't offer RSS services and others might provide very limited information through their RSS feed, such that won't allow you to track the entire articles content with GoNews using the site RSS feed. To overcome these limitations exactly GoNews offers an advanced feature called GoNews Templates.

With GoNews Templates you can provide GoNews with instructions how to parse regular web-pages (HTML) to generate GoNews articles, this way allowing you to follow news from web-sites without RSS feed service, or, in cases that the RSS feed offers very limited amount of data and you would like to receive full articles content this way.

This guide will review the guidelines and syntax for writing such templates for GoNews, how to activate your template within GoNews and how to post and share new templates you create with other users.

Since each web-site uses different HTML format a different template is needed to parse different web-sites.

GoNews templates are based on the wide-used Internet language – JScript (also known as ECMAScript). (For reference you can find more information about Jscript here: <http://en.wikipedia.org/wiki/JScript>)

2. Adding Your Templates to GoNews

GoNews templates are stored as XML files. After creating a new template the file should be copied to the following folder within your Windows Mobile™ device:

<GoNews Touch Installation Directory>\Templates

If you installed GoNews using the default installation directory this folder will be placed at the following path:

\Program Files\GoNews Touch\Templates

Once the template file(s) are copied we need to add them as new channels. To do so, enter the New Wizard Channel, navigate to the Templates section and here you will find the newly created templates you just copied to your device. Selecting any of the templates will add those as new channels within GoNews.

3. Creating Your Own Template

To get started let's look at one of the sample templates shipped with GoNews installer by default. Please navigate to GoNews' Templates folder (as mentioned in #2) and copy the template file EN_Yahoo.xml to your PC. After you copied the file to your PC open it with any text editor so we can easily edit the file and enter our own modifications to it.

Let's take a look at the content of this template file:

```
<?xml version="1.0"?>
<template version="1.0" name="Yahoo!">
  <channel type="RSS">
    <name>Top Stories</name>
    <url>http://rss.news.yahoo.com/rss/topstories</url>
  </channel>
  <channel type="RSS">
    <name>U.S. National</name>
    <url>http://rss.news.yahoo.com/rss/us</url>
  </channel>
  <parse_article>
    <![CDATA[
var root = new Document(article.url);
article.body = "";
var matchNodes = root.getElementsByAttr("div", "class", "yn-story-content");
for(var iLoop = 0; iLoop < matchNodes.length; iLoop++)
{
    article.body = article.body + matchNodes[iLoop].GetOuterHTML();
}
matchNodes = root.getElementsByAttr("div", "class", "ytNewsArticle");
for(var iLoop = 0; iLoop < matchNodes.length; iLoop++)
{
    article.body = article.body + matchNodes[iLoop].GetOuterHTML();
}
]]>
  </parse_article>
</template>
```

To easily create our first template we will modify this file and save it using a different file name. This will make it much easier for us to build the new template on top of this existing template file.

a. XML Structure

Template files follow the XML format standard. The XML root tag must be named as **<template>** and must include a parameter named **version**. For the current GoNews version this parameter value must be set to **1.0**.

The following child tags are optional:

- **<channel>** - Each channel tag represents a single channel (web-site) that articles will be picked from it. A template file can include multiple channel tags with it. Each channel tag must include the following two child tags:
 - **<name>** - Channel name.
 - **<url>** - URL of the web page containing the article list. Normally this will be a URL to the RSS feed.
- **<parse_article>** - Includes Jscript code which is executed when parsing the web-site content for articles for this channel. To get a well-formatted XML file, we suggest using **CDATA** tag in this section.

b. Template JScript – Breaking It to Pieces

In this section we will review the Jscript section of the template and the commands you are allowed to use for this section. The JScript section is the piece of code located between the XML **<parse_article>** tags.

Having some basic JScript knowledge will make it easier to follow this section, but even without any JScript experience you should be able to follow the examples in this section and create your own templates so there is no need to learn JScript before moving ahead with this guide.

JScript provides a few powerful classes such as **String** and **RegExp**. These classes can also be used in your GoNews Templates, however, you can't use DOM related classes such as **document** and **window**.

GoNews templates have three extensions: **Article**, **Node** and **Document** classes. To download a web-page use the following code line:

```
var d = new Document(url);
```

In the line above we define and set variable **d** to store the root node of the document. Using this root node we will later locate the article content and copy the article content to the article body attribute.

Here is a quick review of these extensions:

- **Article** classes – represents a single Article object within GoNews articles list. The content of the Article object is filled by the result content placed within the `<parse_article>` tags in our template file.
 - **url** (string): Includes the full URL of the web-site. It is set when parsing the RSS feed and used to download the full text web page in `<parse_article>` tag.
 - **body** (string): Full text of the article. This should be filled at the end of `<parse_article>` tag.
- **Node** classes: This class represents a tag within the HTML file content. In this current GoNews version we support the following member functions:
 - **GetParentNode()**: Return the parent node of the current node. If the parent node does not exist, it will return **undefined**.
 - **GetFirstChild()**: Return the first child node of the current node. If the first child node does not exist, it will return **undefined**.
 - **GetLastChild()**: Return the last child node of the current node. If the last child node does not exist, it will return **undefined**.

- **GetPreviousSibling()**: Return the previous sibling node of the current node. If the previous sibling node does not exist, it will return **undefined**.
- **GetNextSibling()**: Return the last sibling node of the current node. If the last sibling node does not exist, it will return **undefined**.
- **GetOuterHTML()**: Return the HTML text of the current node.
- **getElementsByAttr(tagname, attrname, attrvalue)**: Return the tags with corresponding name and value. For example, if we want to get all tags `<div class="content">` the following codes can be used to get the nodes array:
`d.getElementsByAttr("div", "class", "content")`.
- **Document** classes: This class is derived from **Node** classes. It has a construction function that can download and parse HTML files:
 - **new Document(url [, encoding])**: It can be used to download and parse HTML file to generate a node tree. If the default encoding set is incorrect, the second parameter can be used to set it explicitly. It will return the root node.

c. Looking at a Complex Template Example

Let's take a look at another GoNews example that is a bit more complex. Please review this example based on the template extensions we reviewed above in point b.

```
<?xml version="1.0"?>
<template version="1.0">
  <channel type="RSS">
    <name>Pocket PC Live! News</name>
    <url>http://www.pocketpc-live.com/index2.php?option=ds-syndicate</url>
  </channel>
<parse_article>
  <![CDATA[
var d = new Document(article.url, "windows-1251");
article.body = "";
var node = d.getElementsByAttr("div", "id", "comment")[0];
for(var n = node.GetPreviousSibling();
    n && (n.nodeName != "SCRIPT");
    n = n.GetPreviousSibling())
    article.body = n.GetOuterHTML() + article.body;
]]>
</parse_article>
</template>
```

We can see that with this template we set the HTML encoding explicitly to match the encoding used on this specific HTML web-page code. This template then uses the **GetPreviousSibling()** member function of **Node** class to go through the web-site HTML.

Each template is designed to parse different specific HTML web-page content. Since each web-page have its own HTML structure and content different template will be needed for each specific web-site. The structure of your template should be created based on the HTML structure of the page this template is created for. When creating your templates you will need to carefully examine and learn the

structure of the page HTML this template is created for and based on this structure create your template code.

In some web-sites articles span on several HTML web-pages. To download the different pages and grab the entire article we can call new Document(url [, encoding]) multiple times until the entire article is downloaded.

4. Sharing Your Templates and Finding Existing Templates

After creating and testing your own GoNews template we invite you to share your new template with other GoNews users. Sharing your templates with other users is what bring the power to the GoNews community and help all users who can easily find and share other templates.

We have created a dedicated forum for GoNews Template sharing that can be found at the following link:

<http://forums.sbsh.net/index.php?showforum=158>

Before posting your template please review the following template posting guidelines at the following post:

<http://forums.sbsh.net/index.php?showtopic=25469>

Before creating your own web-site template we recommend searching the template sharing forum and see if such template was already created by other users.

5. Additional Support

For any additional questions or support we invite you to visit our forums at: <http://forums.sbsh.net> where you can post questions and receive answers from our team of developers and additional GoNews users.

For more details about GoNews you can find GoNews user manual at the following link:

http://www.sbsh.net/products/windows_mobile_pocket_pc/gonews_touch/support

Additionally, you can contact our support team through our web-site. Visit our web-site at: <http://www.sbsh.net> and access the Support section to open a support question ticket with our support team.

For template creation questions we suggest posting at our forums since most technical experts are active at our GoNews forums. Our support team focus mainly on application operation support questions.

We do our utmost to answer all questions within 24 hours or less. In some cases, questions are escalated to our development team and it might require a bit more time until a proper answer is received.

We hope you will enjoy using GoNews Touch and invite you to check our web-site for additional great applications for your mobile device! Our complete applications catalog can be found at our web-site: <http://www.sbsh.net>