

# **WebCatPlus**

## **Quick Start Guide**

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# 1. Overview

Thank you for your purchase of the WebCatPlus Web Server.

**WebCatPlus** is one of the world's smallest web servers. Occupying only 2.4" by 2.35" footprint and consuming under 110mA of current, **WebCatPlus** can operate from a small wall adapter or even batteries, yet allow you to monitor your data and control operations from around the world.

Combined with a large selection of peripheral boards from BiPOM Electronics, **WebCatPlus** packs versatility and power into a truly small form factor.

Turn relays on and off, rotate and tilt cameras, display alarms on LCD, VFD and OLED displays, reboot/reset PC's, activate robotic arms, watch motor speed, log temperature and humidity, display pressure and thousands of other real-world, real-time control and monitoring applications are possible.

No more need for dedicated, power-hungry PC's or expensive embedded processor boards for simple to complex web-based monitoring and control.

All this is now possible without a single line of programming. **WebCatPlus** comes pre-loaded with a web server application that can read PC file format. Simply generate your HTML with your favorite editor ( for example, FrontPage, Dreamweaver, etc. ) or built-in free HTML Editor, insert tags to monitor data from real hardware, insert commands to control real hardware and you are ready to monitor and control the world.

This document describes how to quickly get started with WebCatPlus Web Server and includes the following steps:

- Requirements
- Hardware Setup
- Software Installation
- Work WebCatPlus Publisher

## 2. Requirements

The minimum requirements to get started with WebCatPlus Web Server are:

- **WebCatPlus** single-board web server (based on MINI-MAX/ARM-E BiPOM board)
- PC with installed Windows XP / Vista / 7 operating system
- Native RS232 serial port or virtual serial port with USB to Serial converter on the PC
- RJ45 Ethernet port on the PC
- Ethernet cable to connect the MINI-MAX/ARM-E board to the Ethernet port on the PC
- Serial cable to connect the MINI-MAX/ARM-E board to the serial port on the PC

A Windows PC is required to run **WebCatPlus Publisher** – free BiPOM software which simplifies development and maintenance of web projects. This software allows upgrading **WebCatPlus Web Server** firmware, creating and downloading your project files to the target board over serial port or over FTP protocol.

### 3. Hardware Setup

1. Place the WebCatPlus Microcontroller board on a clean, non-conductive surface.
2. Connect the provided 6VDC power supply plug to the power jack on the MINI-MAX/ARM-E. Do not connect the power supply to the outlet yet.

**CAUTION:** Do not use a power supply other than one that is supplied or approved by BiPOM Electronics. Use of another power supply voids the warranty and may permanently DAMAGE the board or the computer to which the board is connected !!!

4. Connect the MINI-MAX/ARM-E to the Ethernet port on the PC using the Ethernet cable as shown below on Figure 1.

5. Connect the MINI-MAX/ARM-E to an available serial port on the PC using the serial cable as shown below. NOTE: You can use **CBL-USB-COM-1** USB to COM port converter if your PC missing native COM port. For more information about **CBL-USB-COM-1** please visit <http://www.bipom.com/products/us/320088.html>

6. Connect the 6VDC power supply to a suitable wall outlet.

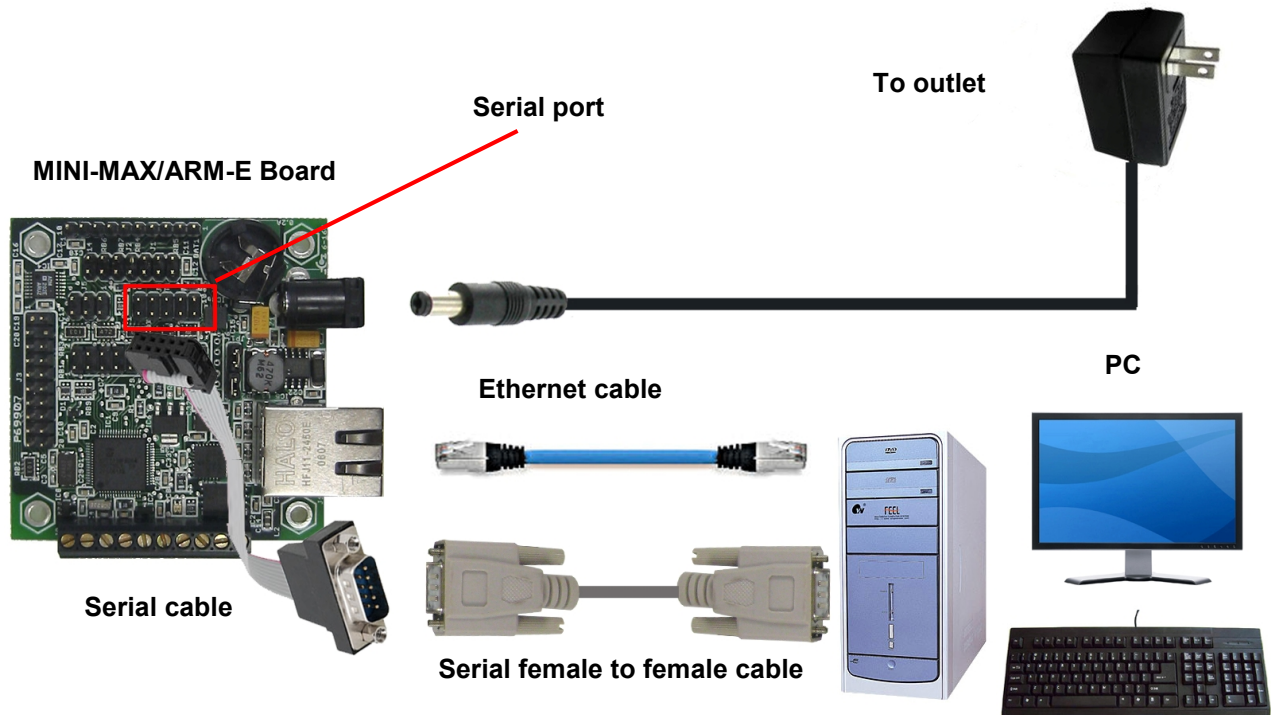


Figure 1

## 4. Software Installation

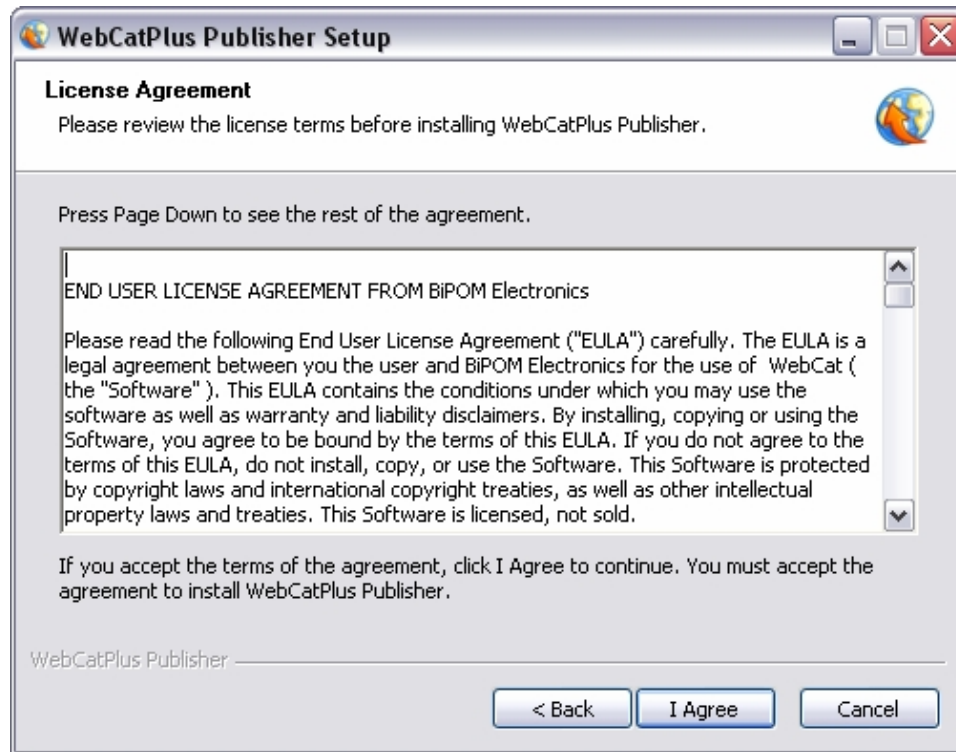
Downloads **WebCatPlus Publisher** from

[http://www.bipom.com/files/webcatplus/wcp\\_setup.exe](http://www.bipom.com/files/webcatplus/wcp_setup.exe)

Run **wcp\_setup.exe**. A welcome screen will appear.



Click **Next**. License Agreement will appear.

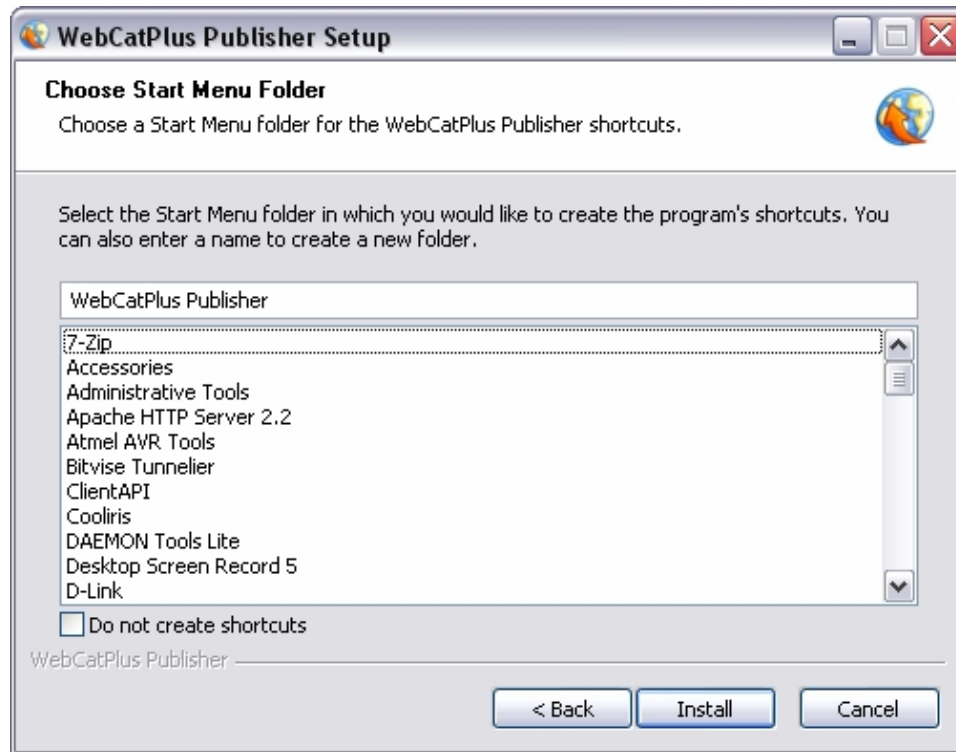


Click **I Agree** if you agree to the terms of the license agreement. You will be asked to enter the destination location. It is recommended to use the default location although you can install the software in a different folder and/or on a different drive.





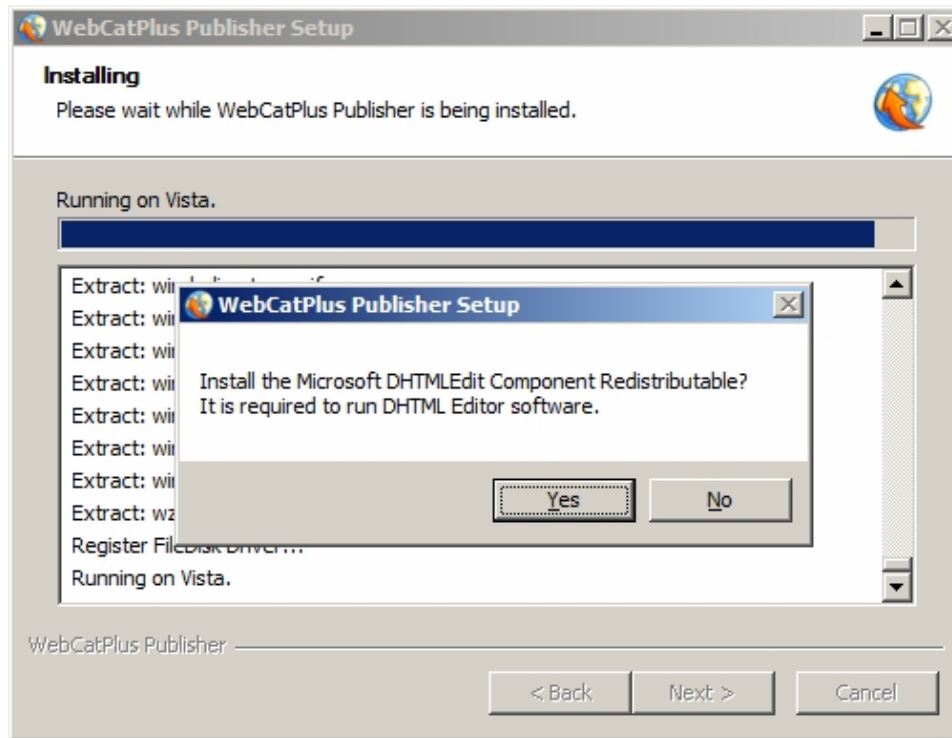
Click **Next**. Select the **Program Folder**.



Click **Install**. This will install all required files on your PC.

## For Windows Vista / Windows 7

If you run the installation on a PC with Windows Vista or Windows 7, after the files are copied, you will see a message box that will ask you to install the **DHTMLEdit Component Redistributable** package. This package is required to run the internal DHTML Editor which allows editing HTML pages directly from within **WebCatPlus Publisher**.

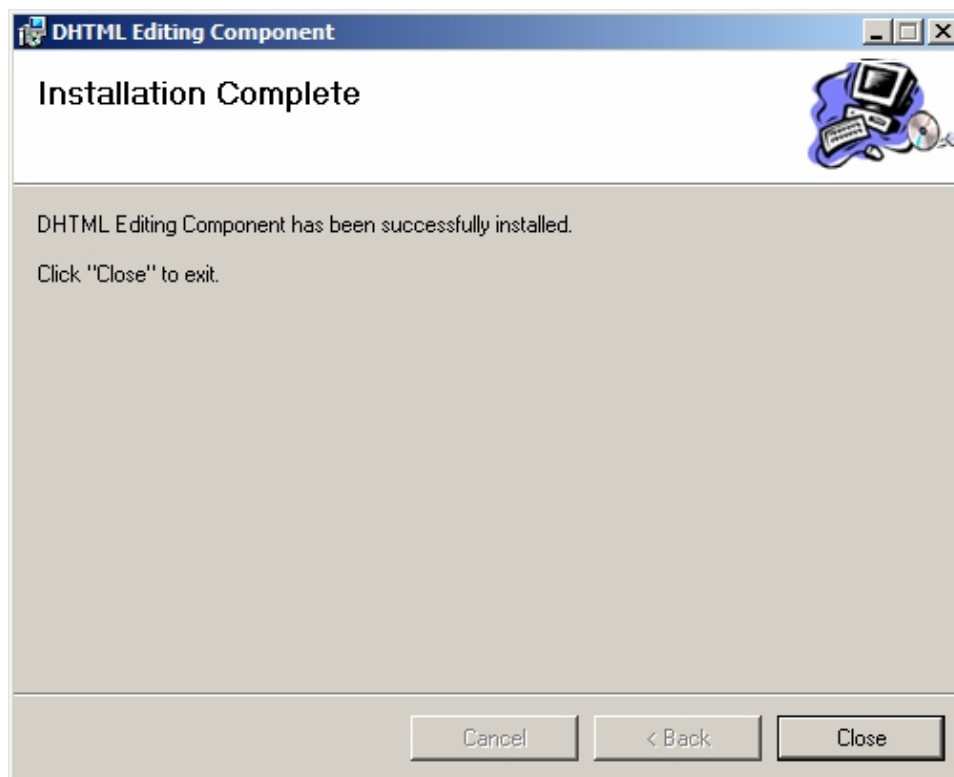


If you prefer not to install this package, you can click **No** and skip this step. In this case, the internal HTML editor will be not available. You can always configure WebCatPlus Publisher to work with an external HTML editor of your choice if needed.

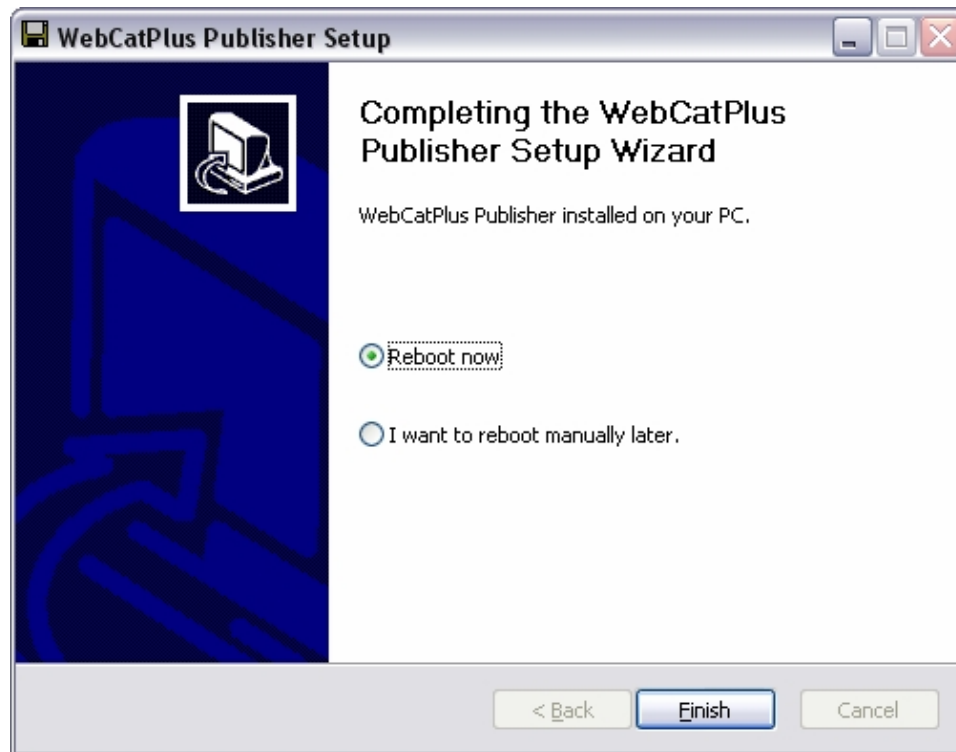
If you want to use the internal HTML editor, then click **Yes**.



On next page you should click **I Agree** if you agree with Microsoft Software License Terms and click **Next**. This will install and register all required components on your PC.



When all the files are installed, click **Close** to finish the installation.



After all files have been installed, you will be asked to restart the computer. Normally, restarting your computer is necessary if you are installing **WebCatPlus Publisher** for the very first time so that the DOS file system driver can be installed. Subsequent installations of WebCat Publisher ( for example, for upgrades ) do not need a full restart of your computer.

Click **Finish** and your computer will be restarted. You are now ready to use the **WebCatPlus Publisher** to create and download your web pages onto the **WebCatPlus** web server.

**NOTE:** DOS file system driver does not work on Windows Vista and Windows 7.

This driver is required only for downloading files on **WebCatPlus** web server based on the BiPOM MINI-MAX/51-E board.

**WebCatPlus** Web Server supports downloading project files directly over serial port or over FTP and does not require the DOS file system driver.

## 5. Upgrading Firmware

Firmware is the software that runs the web server on the WebCatPlus board.

WebCatPlus web server firmware is preinstalled at the factory on the WebCatPlus board so there is no need to download a firmware.

If you wish to upgrade the firmware ( for example, when a new firmware revision is available on BiPOM website ), please follow these instructions:

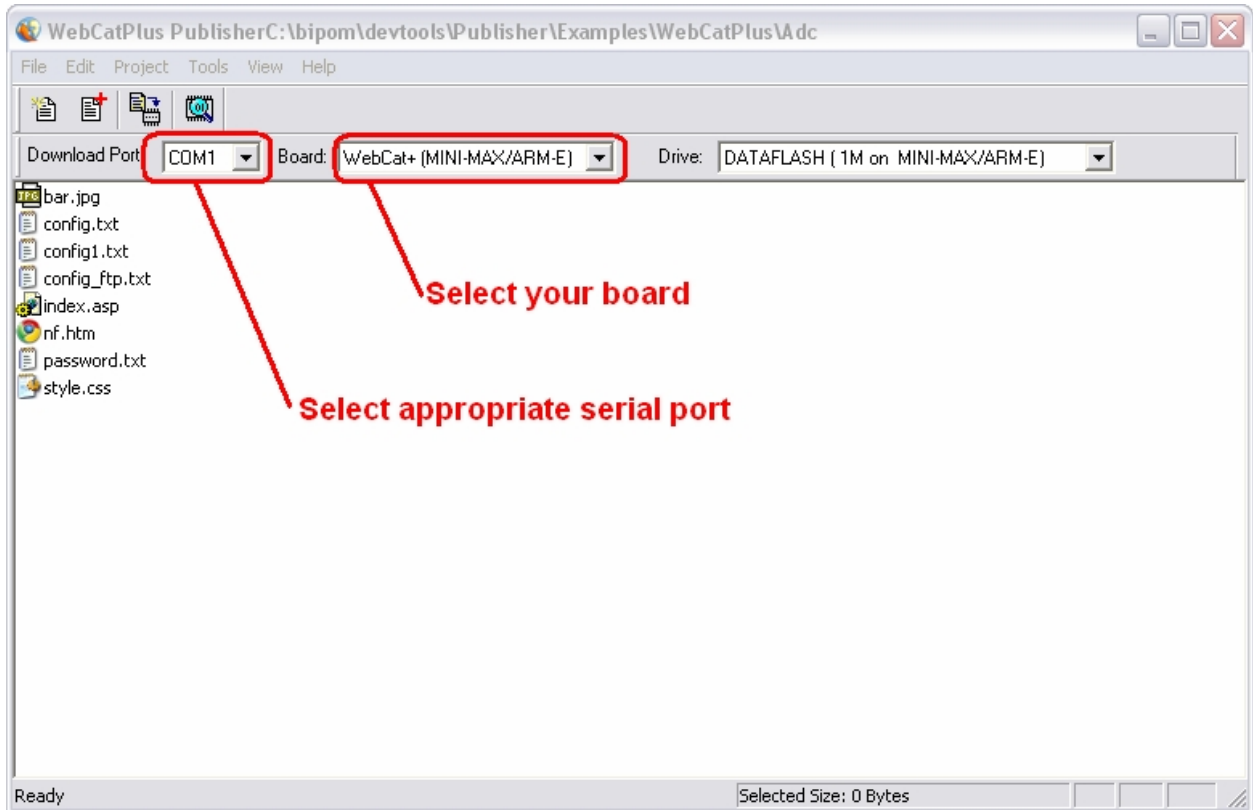
Connect the **WebCatPlus Web Server** board to the PC with the serial cable as described in Hardware Setup.

Run **WebCatPlus Publisher** from **Start** Windows menu:

**Start→All Programs→WebCatPlus Publisher→WebCatPlus Publisher**

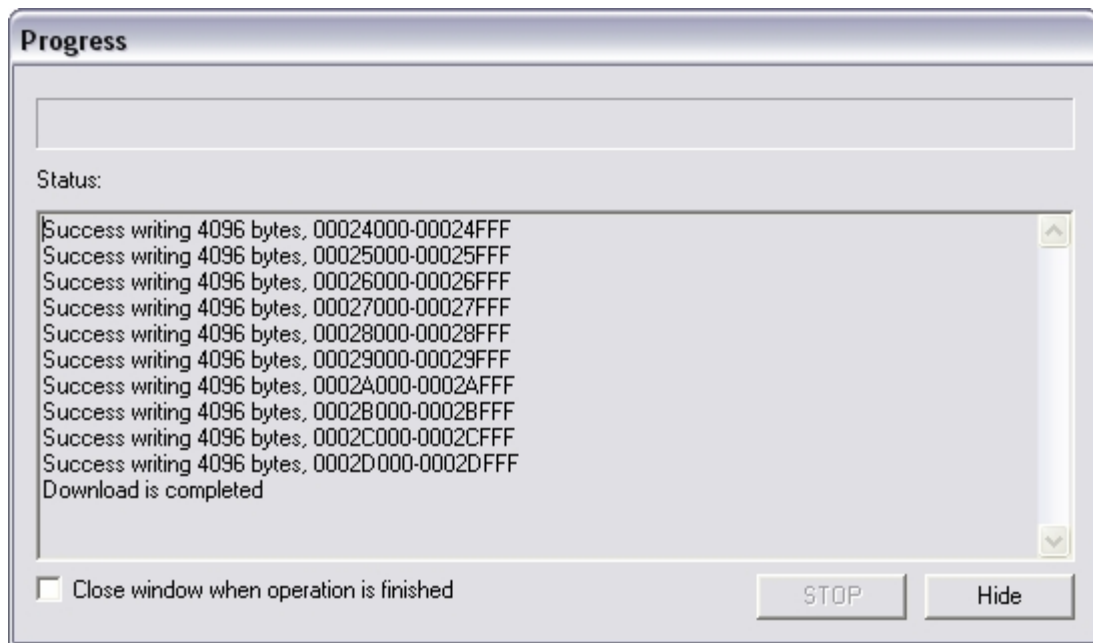
When Publisher will be started select the COM (serial) port to download.

Select appropriate board type in the "Board" selection box on the Publisher toolbar. If you use **WebCatPlus Web Server** board, you should select **WebCat+ (MINI-MAX/ARM-E)** option. If you use **WebCat Web Server** board, then you should select **WebCat (MINI-MAX/51-E)**.



Go to **Tools** menu and click **Firmware Upgrade** command.

You will see the **Progress** window that will show the progress of firmware download to the board. Wait until the download is finished.



When the firmware has been downloaded, you can use **Publisher** to publish your projects.

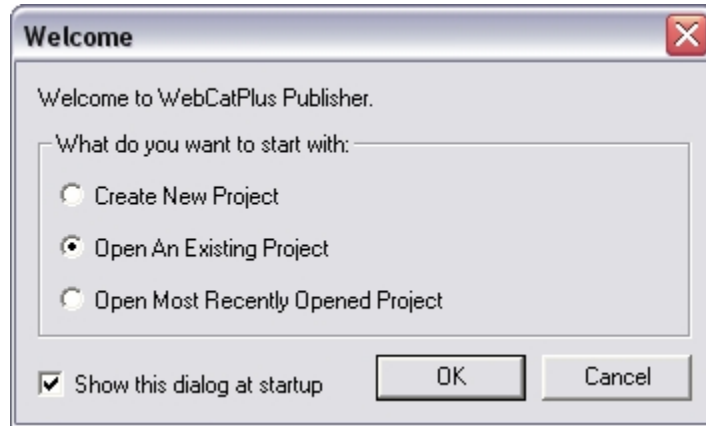
## 6. Publishing an Example Project

### 6.1 Opening Example Project

Run **WebCatPlus Publisher**.

**Start→All Programs→WebCatPlus Publisher→WebCatPlus Publisher**

When **Publisher** starts, the **Welcome** window appears:



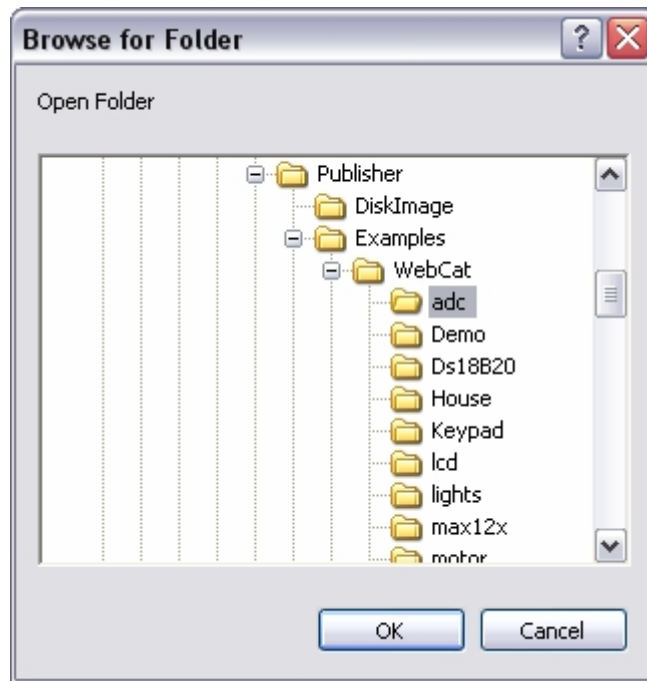
Select **Open An Existing Project** on **Welcome** window and click **OK** button.

**Browse for Folder** window will be opened. Select the project folder that you want to open.

Select the example project ADC. This is located in the folder:

`<InstallDir>\Publisher\Examples\WebCatPlus\Adc\`

`<InstallDir>` is the folder where the Publisher software was installed. If the Publisher was installed to the default directory, then it will be: `c:\bipom\devtools\Publisher\`



Click **OK** and selected project will be opened in **Publisher**.

Make sure that **WebCat+ (MINI-MAX/ARM-E)** is selected in **Board** selection box on Publisher toolbar.

## 6.2 Formatting Target Drive

As the next step, format the target drive on **WebCatPlus Web Server** board.

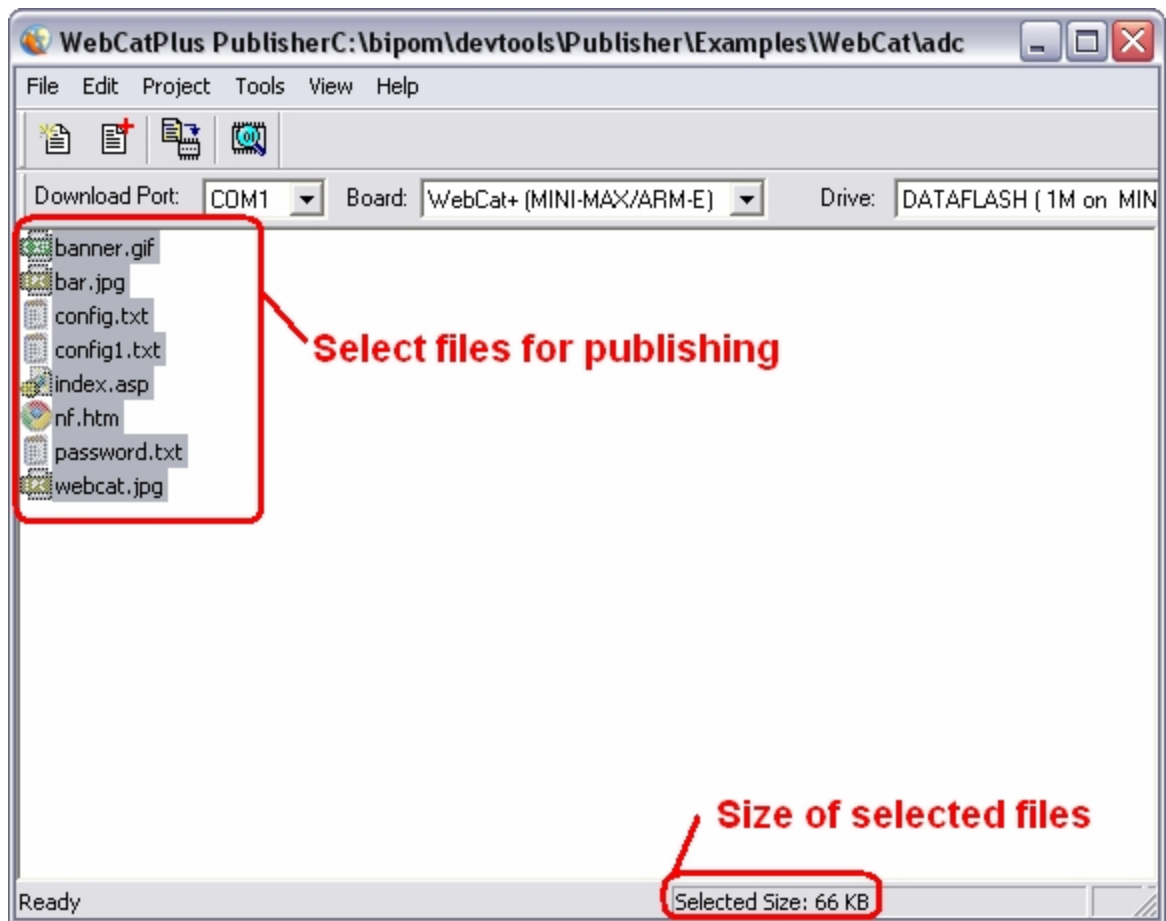
Go to **Tools** menu and click **Format Disk** command. This command does a quick format of target drive. The **Progress** window will show progress of formatting. After formatting is complete, you will be able to publish project files to target drive through the serial port.

## 6.3 Selecting Files for Publishing

When you publish your project, **WebCatPlus Publisher** uses only the selected files so select files before publishing. Size of the selected files is shown in the status bar. Please make sure that selected files size is smaller than disk size.

**NOTE:** Disk size can be selected using **Tools → Options**.



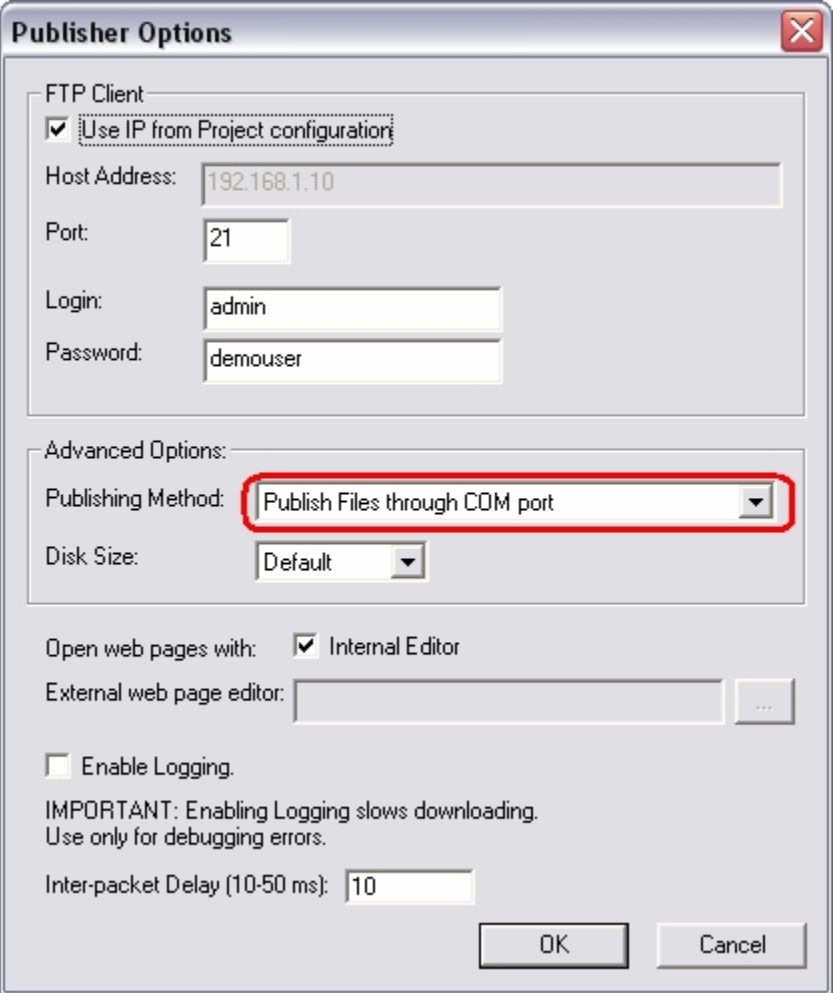


## 6.4 Configuring Publishing Method

Go to **Tools** menu and select **Options**. **Options** window allows configuring the **Publisher** software.

Set **Publishing Method** to **Publish Files through COM port**. Click **OK**.

**NOTE:** The default value after new installation is **Publish Files through COM port**.

The image shows a 'Publisher Options' dialog box with a title bar and a close button. It is divided into several sections. The 'FTP Client' section has a checked checkbox for 'Use IP from Project configuration', followed by text boxes for 'Host Address' (192.168.1.10), 'Port' (21), 'Login' (admin), and 'Password' (demouser). The 'Advanced Options' section contains a 'Publishing Method' dropdown menu, which is highlighted with a red rectangle and shows 'Publish Files through COM port'. Below it is a 'Disk Size' dropdown menu set to 'Default'. The 'Open web pages with:' section has a checked checkbox for 'Internal Editor' and an empty text box for 'External web page editor' with a browse button. There is an unchecked checkbox for 'Enable Logging.' followed by a warning message: 'IMPORTANT: Enabling Logging slows downloading. Use only for debugging errors.' At the bottom, there is a text box for 'Inter-packet Delay (10-50 ms):' set to '10'. The dialog box ends with 'OK' and 'Cancel' buttons.

**Publisher Options**

FTP Client

☒ Use IP from Project configuration

Host Address: 192.168.1.10

Port: 21

Login: admin

Password: demouser

Advanced Options:

Publishing Method: Publish Files through COM port

Disk Size: Default

Open web pages with: ☒ Internal Editor

External web page editor:

☐ Enable Logging.

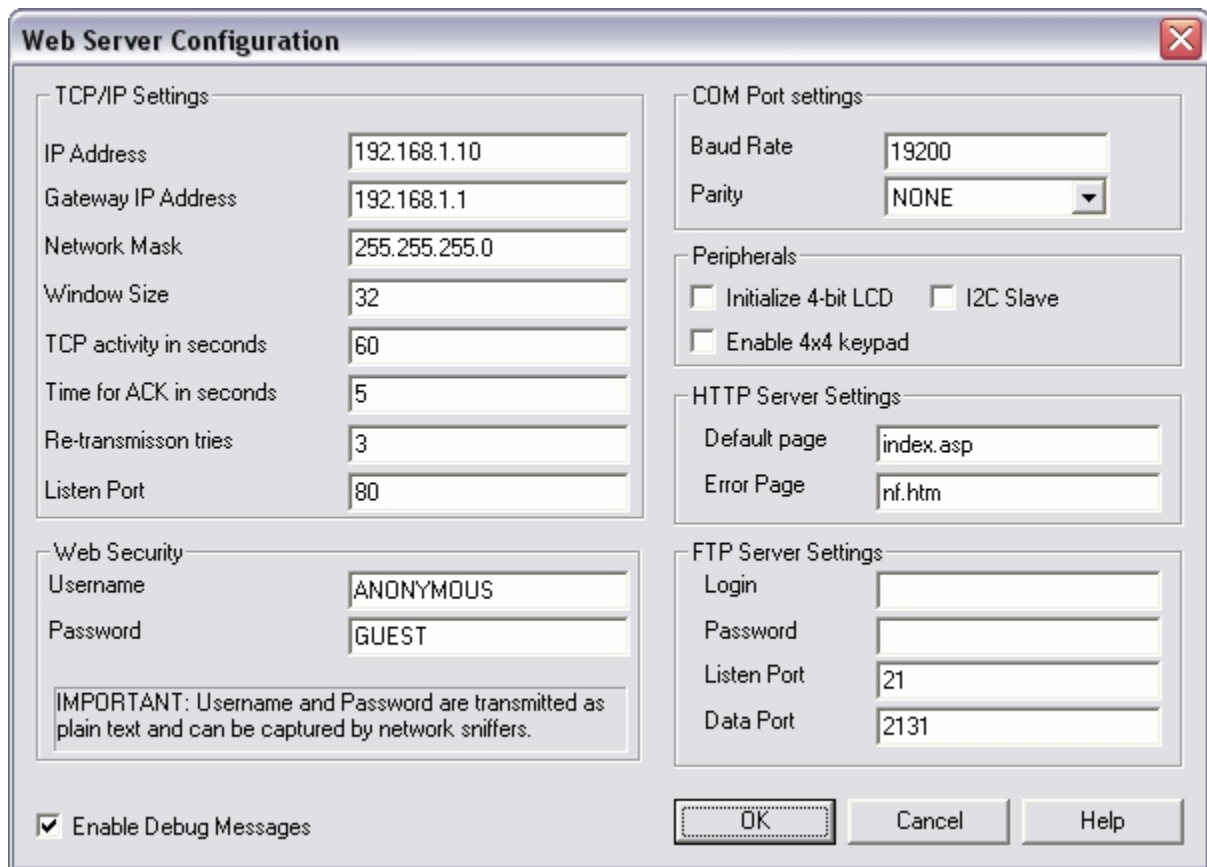
IMPORTANT: Enabling Logging slows downloading.  
Use only for debugging errors.

Inter-packet Delay (10-50 ms): 10

OK Cancel

## 6.5 Configuring Example Project

Web Server obtains some configuration parameters from configuration file. WebCatPlus Publisher provides an easy way to configure these files. Just go to **Project** menu and click **Configuration** command. **Web Server Configuration** window will be opened.



The image shows a 'Web Server Configuration' dialog box with a title bar and a close button. It is divided into several sections: 'TCP/IP Settings' with fields for IP Address (192.168.1.10), Gateway IP Address (192.168.1.1), Network Mask (255.255.255.0), Window Size (32), TCP activity in seconds (60), Time for ACK in seconds (5), Re-transmission tries (3), and Listen Port (80); 'COM Port settings' with Baud Rate (19200) and Parity (NONE); 'Peripherals' with checkboxes for Initialize 4-bit LCD, I2C Slave, and Enable 4x4 keypad; 'HTTP Server Settings' with Default page (index.asp) and Error Page (nf.htm); 'Web Security' with Username (ANONYMOUS) and Password (GUEST), and a warning box stating 'IMPORTANT: Username and Password are transmitted as plain text and can be captured by network sniffers.'; 'FTP Server Settings' with Login, Password, Listen Port (21), and Data Port (2131) fields; and a checkbox for 'Enable Debug Messages' at the bottom left. At the bottom right are 'OK', 'Cancel', and 'Help' buttons.

TCP/IP Settings	
IP Address	192.168.1.10
Gateway IP Address	192.168.1.1
Network Mask	255.255.255.0
Window Size	32
TCP activity in seconds	60
Time for ACK in seconds	5
Re-transmission tries	3
Listen Port	80

COM Port settings	
Baud Rate	19200
Parity	NONE

Peripherals	
<input type="checkbox"/> Initialize 4-bit LCD	<input type="checkbox"/> I2C Slave
<input type="checkbox"/> Enable 4x4 keypad	

HTTP Server Settings	
Default page	index.asp
Error Page	nf.htm

Web Security	
Username	ANONYMOUS
Password	GUEST

IMPORTANT: Username and Password are transmitted as plain text and can be captured by network sniffers.

FTP Server Settings	
Login	
Password	
Listen Port	21
Data Port	2131

☒ Enable Debug Messages

OK Cancel Help

### TCP/IP Settings

- **IP Address** - IP address of web server.
- **Gateway IP Address** - IP address of gateway
- **Network Mask** - network mask

The parameters above are similar to how you would set up an Ethernet connection on a PC. Please enter the network parameters that are appropriate for your network.

- **Window Size** - Size of Sliding TCP Window for transmission. It is between 2 and 254. This is the number of packets which can be sent without acknowledgement. You can leave this at its default value.

**TCP activity in seconds** - Time-out for TCP connection. It is between 1 and 65535. If, during time-out, no bytes were sent through the TCP connection, then web server will close this connection. You can leave this at its default value.

- **Time for ACK in seconds** - Determines how long web server waits for acknowledgement after sending packets. It is between 1 and 255. If acknowledgement is received, then WebCat sends the next window (several packets, maximum number packets in window set in Window Size), if not received then WebCat sends previous window. You can leave this at its default value.
- **Re-transmission tries** – Number of times web server would resend window if no acknowledgement was received. It is between 1 and 255. If response is not received after this number of retries, web server closes the connection. (**Note:** if window did not confirm on first try, the window will be reduced by 2 packets, otherwise the window will increased by 2 packets (maximum number of packets in window set in Window Size ). You can leave this at its default value.
- **Listen Port** – TCP/IP port number that web server will listen on. By default this port is 80. You can leave this at its default value.

### **HTTP Server Settings**

- **Default page** - Name of the web site's main page.
- **Error page** - Name of a page that will be served when the browser requests a non-existing page. (**Note:** If a file has HIDDEN attribute, it is considered as non-existing. This way you can hide some files from the web).

### **FTP Server Setting**

- **Login** – Name of FTP user that will be allowed to connect to FTP server.
- **Password** – Password for FTP user.
- **Listen Port** – TCP/IP Port of FTP server. Default port is 21 but you can change it to any other valid TCP port.
- **Data Port** – TCP/IP port that will be used to transmit data to/from FTP server. This should be different then FTP port.

### **Web Security**

- **Username** – Name of user that will be allowed to run remote commands on the Web Server. If you change the name from default value, only specified user will be able to run remote commands.
- **Password** – Password for user that can run remote commands.

### **COM port settings**

- **Baud rate** - Serial port baudrate for web server's local serial port. Allowed values: 300,600,1200,2400,4800,9600,19200,38400,57600,115200.
- **Parity** – Bit parity of serial port. (NONE, ODD, EVEN)

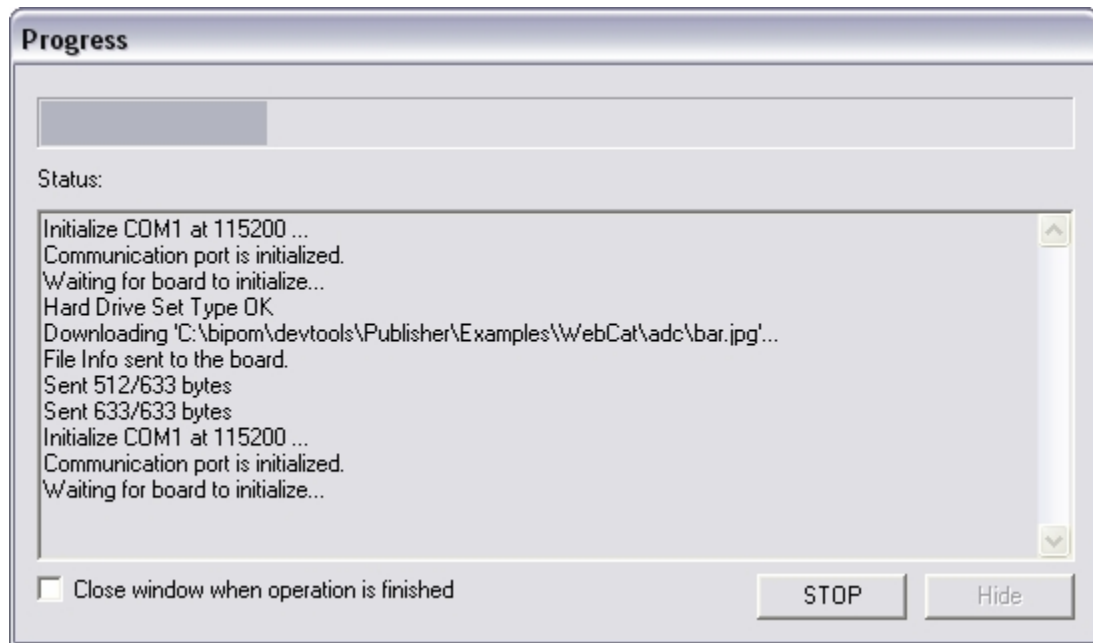
### **Peripherals**

- **Initialize 4-bit LCD** - If YES, then the web server uses LCD connector to initialize the attached LCD. If NO, users can use the LCD connector as a general purpose port by tags **^T0.0^** .. **^T0.7^** and commands **CLR** and **SET**.
- **Enable 4x4 keypad** - If YES, then the web server uses KEYPAD connector and starts scanning the 4x4 keypad. If NO, users can use the KEYPAD connector as a general purpose port by tags **^T2.0^** .. **^T2.7^** and commands **CLR** and **SET**.
- **Enable Debug Messages** - If selected, web server will insert the debug messages into pages.

## 6.6 Publishing a Project

Once you have selected the files you want to publish, go to **Project** menu and click **Publish Project**.

Once you click **Publish Project** menu command **WebCatPlus Publisher** will open progress window that displays the progress of publishing a project to **WebCatPlus Web Server** board.



**WebCatPlus Publisher** will send each selected file through serial port to **WebCatPlus Web Server** board. When all files will be copied then you can browse your project from browser.

## 6.7 Browsing a Project

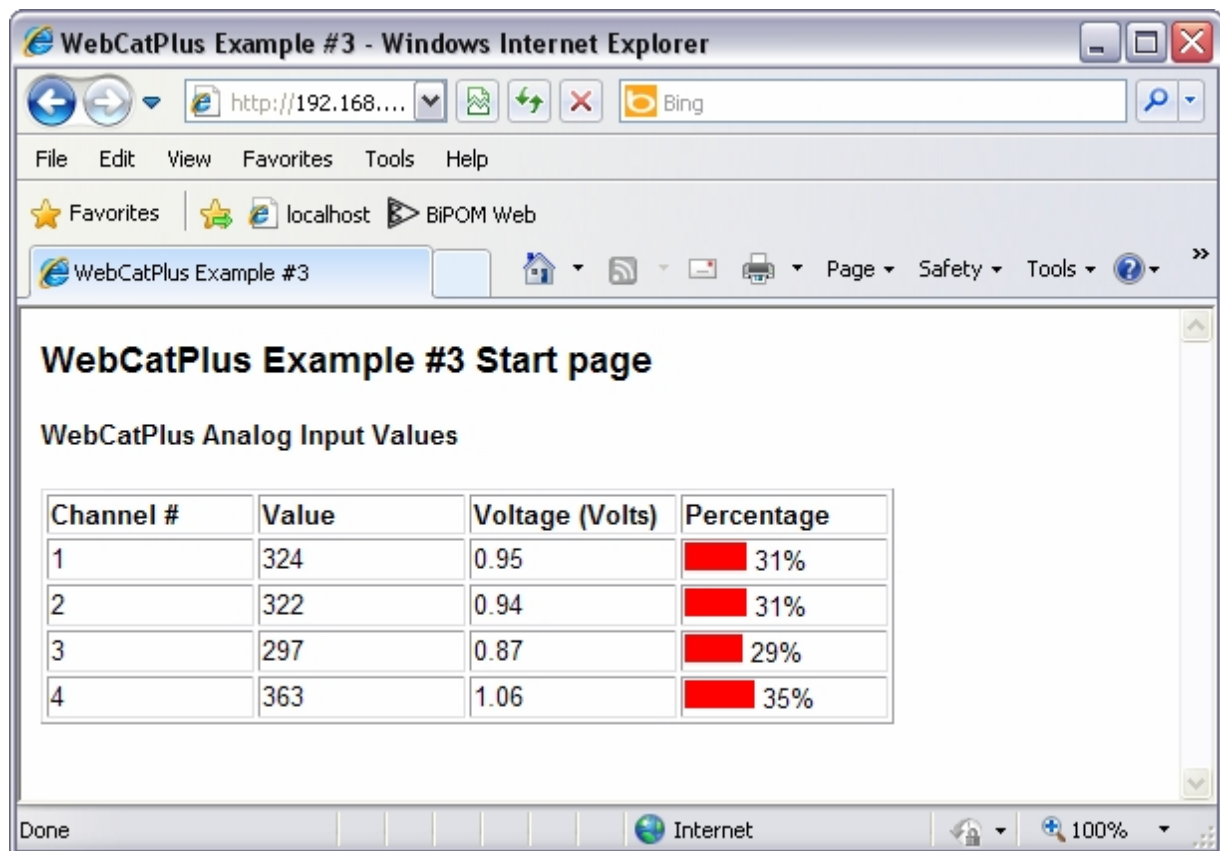
Run your favorite Web browser and type

<http://xxx.xxx.xxx.xxx/>

in address bar.

**xxx.xxx.xxx.xxx** - This is IP address what you assigned to WebCatPlus Web Server in Project Configuration Window.

The ADC Example project will look like on following image:

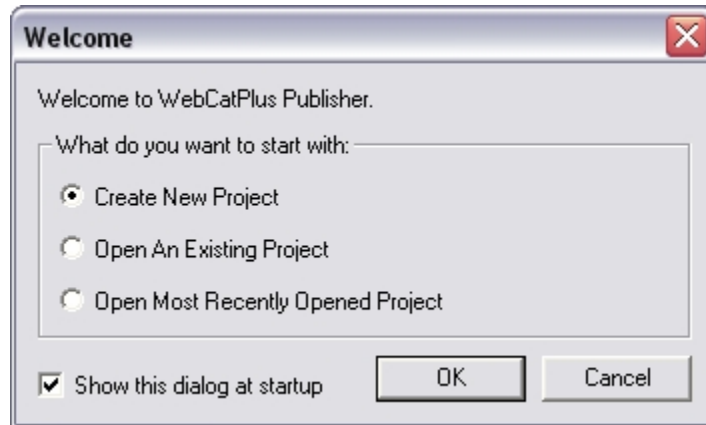


## 7. Creating a New Project

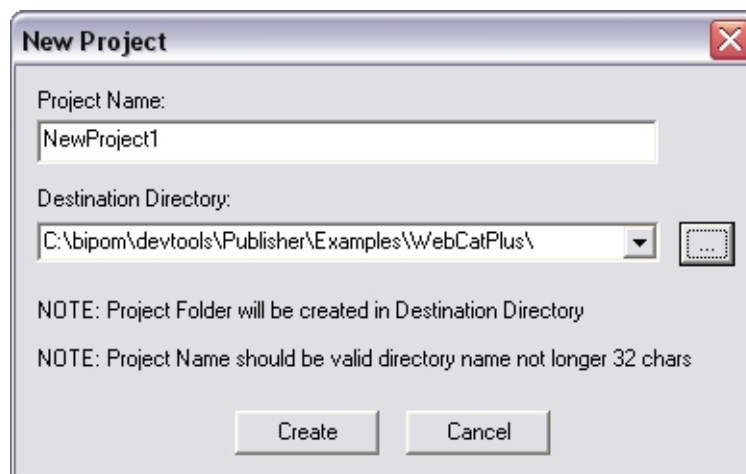
Run WebCatPlus Publisher:

Start→All Programs→WebCatPlus Publisher→WebCatPlus Publisher


When **Publisher** runs you will see **Welcome** window.



Select **Create New Project** on **Welcome** window and click **OK** button.  
**New Project** window will be opened.



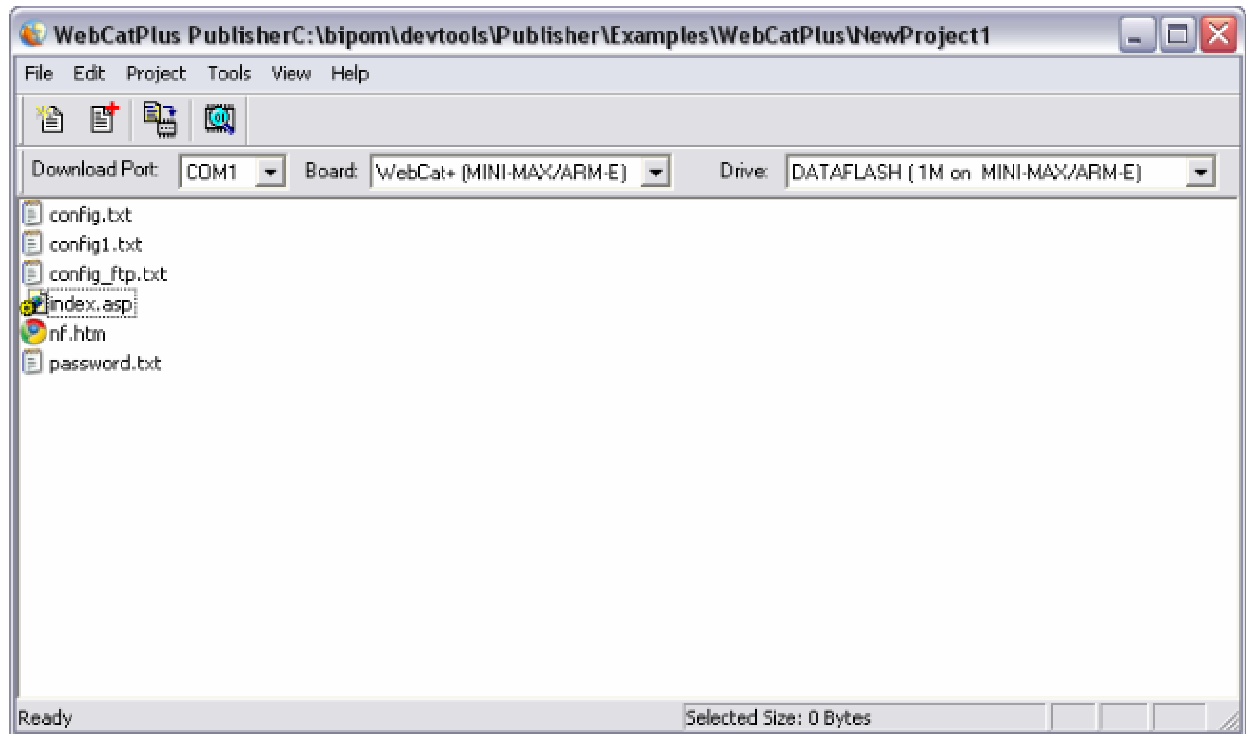
Enter name of project (**NewProject1** in our example).

Select the Destination Directory where the project folder will be created. In order to select a folder, click the Browse button  to the right.

When the Project Name and the Destination Directory are selected, click the **Create** button.

The project directory and template files will be created:

- config.txt
- config1.txt
- config\_ftp.txt
- password.txt
- index.asp
- nf.htm



Template files contain default configuration options and two important files of the web server: index file and Not Found error page.

### **index.asp**

This is the main page of the web site. It will be loaded if you type only address of web server. This is home page of web site.

### **nf.htm**

This is the page that will be displayed when the browser tries to open a non-existing page. You can leave it as is or design your own "Not Found" error page.

This minimal set of files is required for WebCatPlus web server.

Next chapter explains how to edit project files.



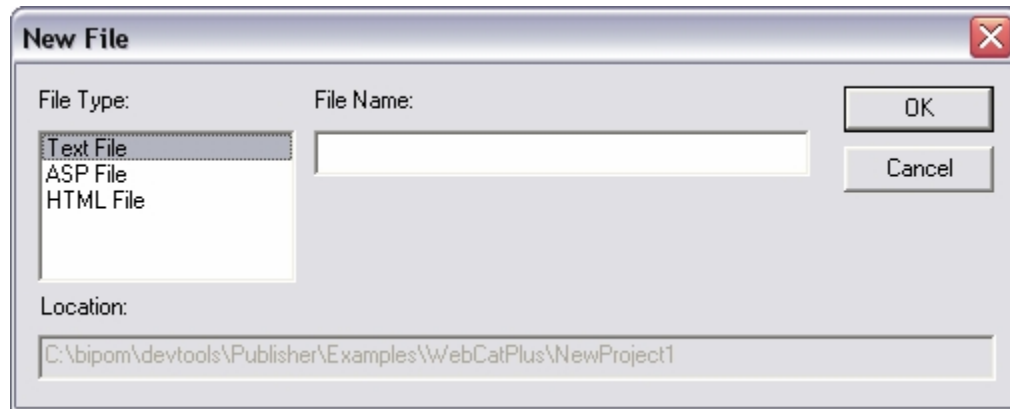
## 8. Working with Project Files

You can do following with project files:

- Add a new file to the project
- Add an existing file to the project
- Delete a file from the project
- Edit project file in HTML editor

### 8.1 Adding a New File

Go to **File** menu and click **New**. **New File** window will be opened:



Type the name of file in **File Name** field. Then select the type of the file to add:

**Text File** – Regular plain text file.

**ASP File** – Active Server Page. ASP can contain HTML code and special **tags** that is detected by WebCatPlus server and substituted with some values when the page is processed.

**HTML File** – Regular HTML file with static HTML code.

Click **OK** button. The new file will be added to the list of files in project window.

### 8.2 Adding an Existing File

You also can add existing files to the project.

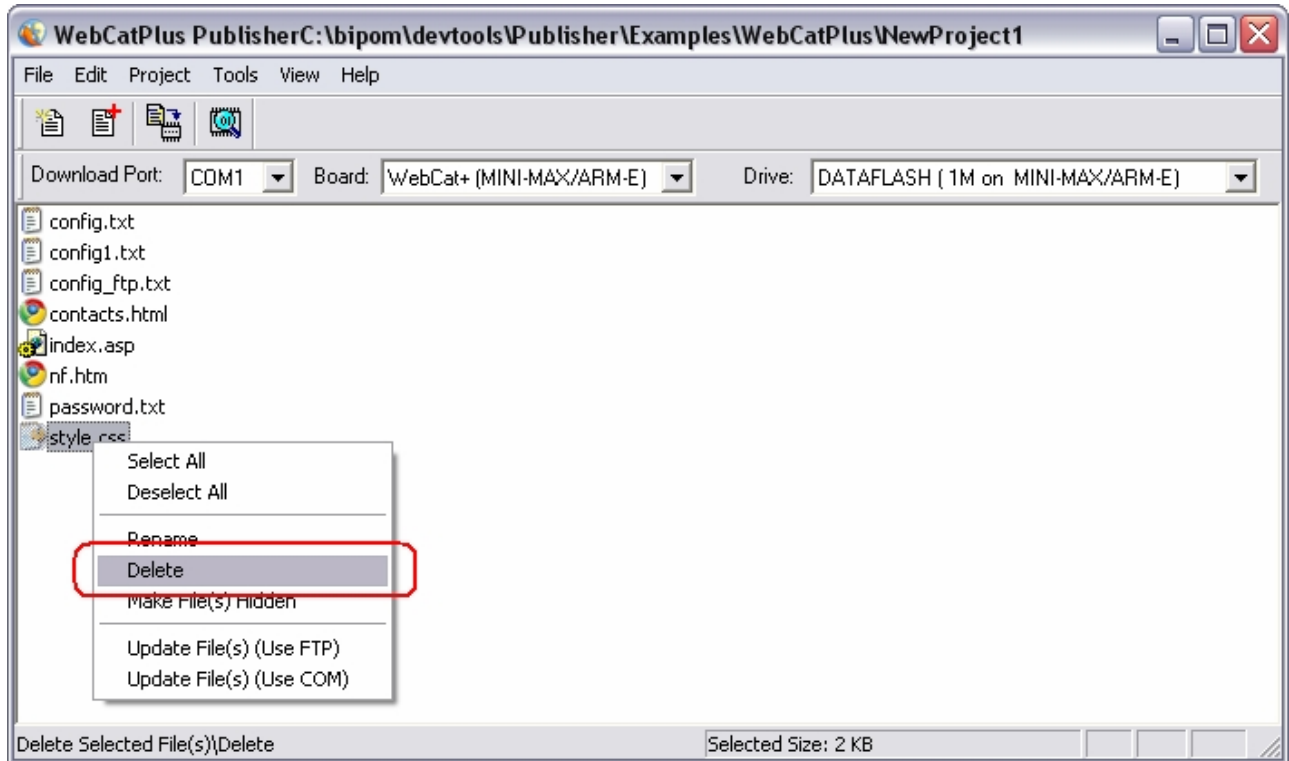
Go to **Project** menu and click **Add Files to Project**. **Open** dialog will be displayed. You can navigate to a folder that contains the file, select the file and click **Open**. The selected file will be added to the project window. Also the file will be copied to the project directory.

You can select several files and add them all at once.

## 8.3 Deleting a File

You can delete files from a project. You should select a file or files that you want to delete in project window and then go to **Edit** menu and click **Delete**. Also you can click **Delete** command in the context menu that is opened by right clicking on a file name.

The selected file(s) will be deleted from the project and also from the project directory:



## 8.4 Editing a File

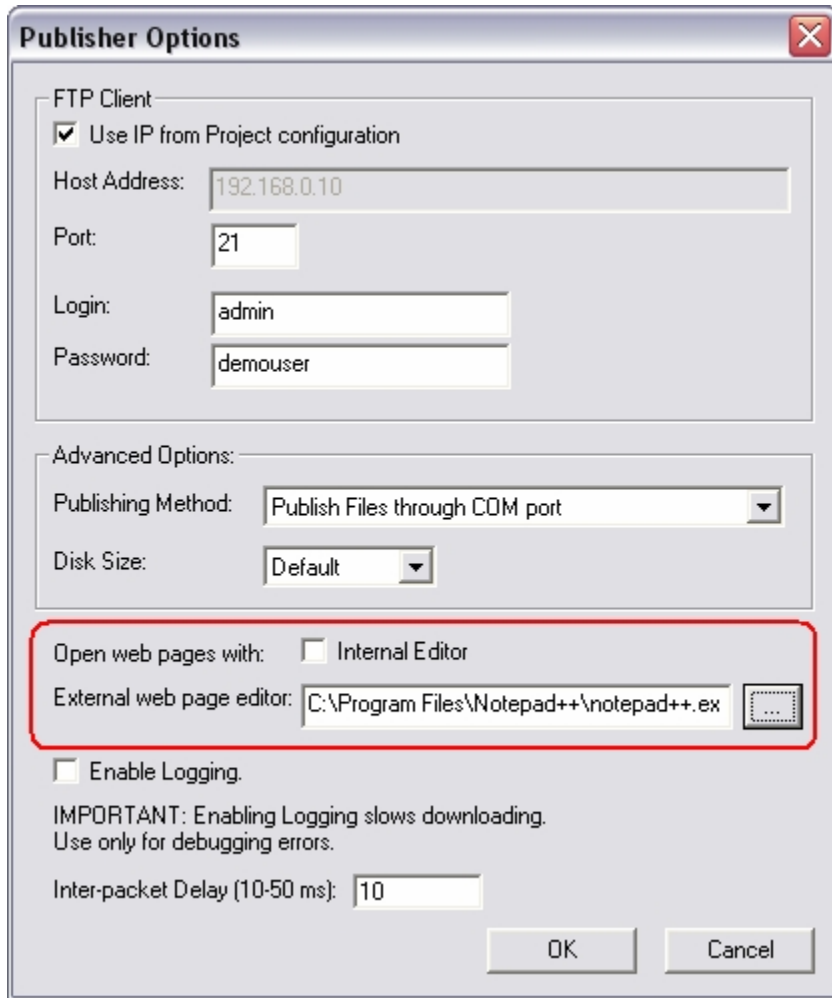
You can edit a file by simple double clicking on the file name. The default editor will be opened. For example, if you double click on a text file, it will be opened in **Notepad**. HTML, HTM and ASP files will be opened in internal DHTML Editor.

**NOTE:** You can select another editor instead of the default editor on Publisher Options window. Go to **Tools** menu and click **Options....**

On the window that is displayed, uncheck **Internal Editor** checkbox.

Click button  to the right of **External web page editor** field. Select the executable file of your preferred HTML editor.

Click **OK** button. Next time when an ASP or an HTML file is clicked on, the new HTML editor will be started and open the file.



**Publisher Options**

FTP Client

☒ Use IP from Project configuration

Host Address: 192.168.0.10

Port: 21

Login: admin

Password: demouser

Advanced Options:

Publishing Method: Publish Files through COM port

Disk Size: Default

Open web pages with: ☐ Internal Editor

External web page editor: C:\Program Files\Notepad++\notepad++.ex

☐ Enable Logging.

IMPORTANT: Enabling Logging slows downloading.  
Use only for debugging errors.

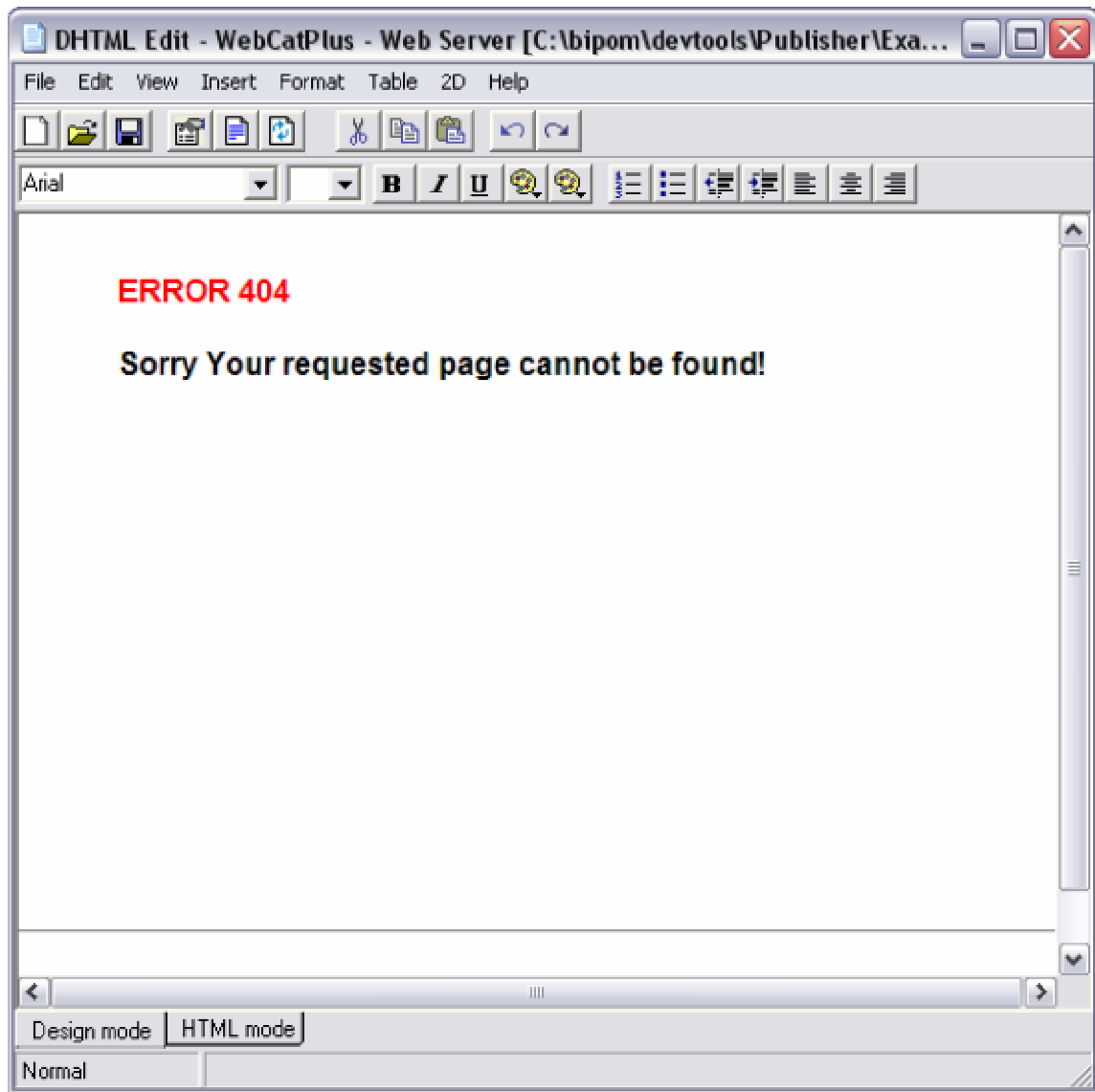
Inter-packet Delay (10-50 ms): 10

OK Cancel

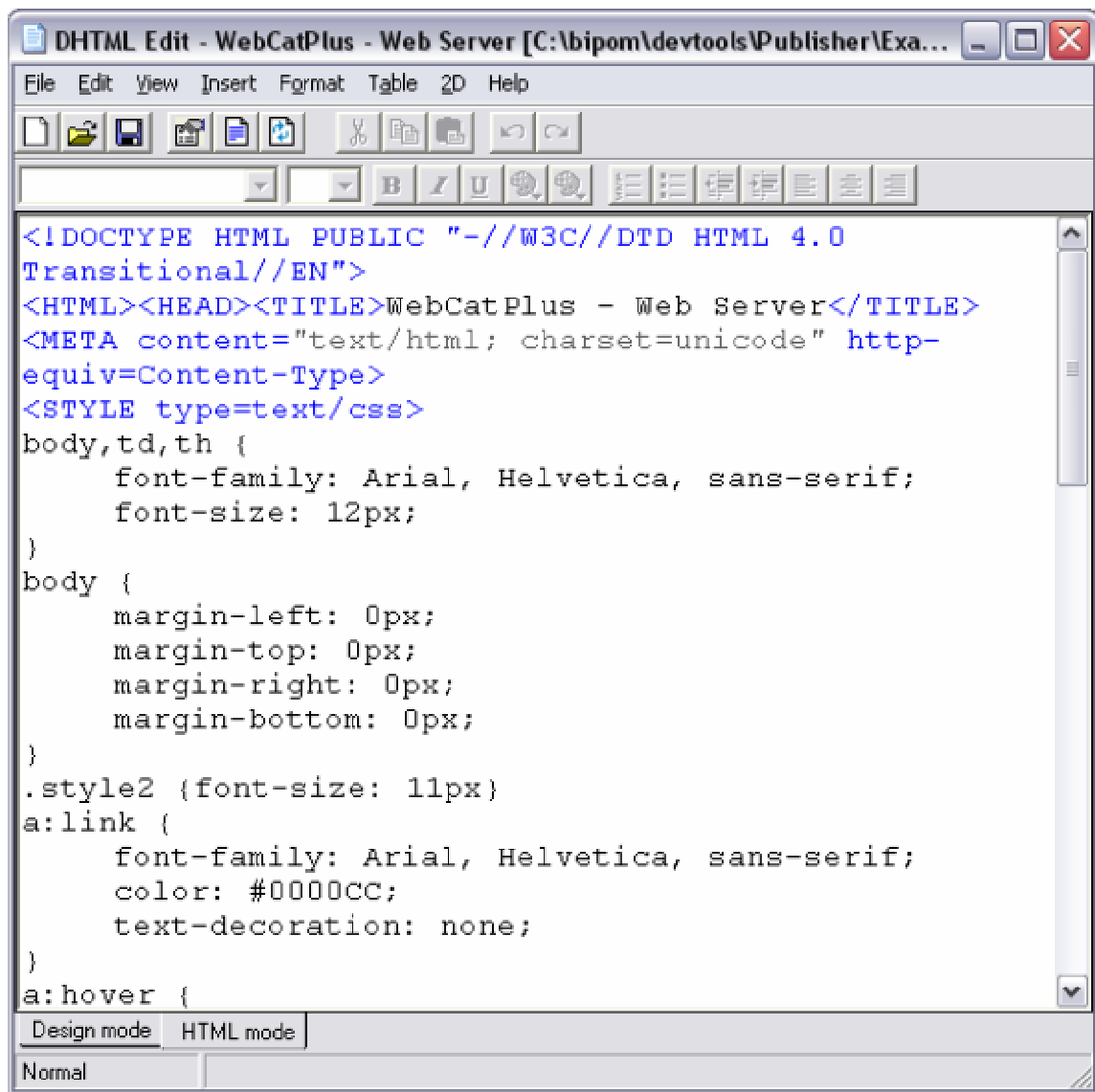
For example, double click on **nf.htm**

File will be opened using the built-in DHTML Editor. By default, the file is opened in **Design Mode**. **Design Mode** allows editing an HTML page as in a usual text editor. The main features of **Design Mode**:

- Edit text
- Delete text
- Copy/Cut/Paste text blocks
- Undo/Redo commands
- Type new text
- Change color of selected text
- Change background color of selected text
- Changing font face, font size, font type (bold, underline, italic)
- Create unordered and ordered lists
- Setup text alignment (left, center, right)
- Insert tables and manage rows/columns/cells
- Insert pictures



You also can switch the view to **HTML Mode**. This mode allows editing raw HTML text. This mode supports direct editing of HTML tags and special ASP WebCatPlus tags.



After editing a page, save the page and close the DHTML Editor. This returns control back to WebCatPlus Project window.

## 9. Example #1: Visitor

This example explains how to use tags on web pages.

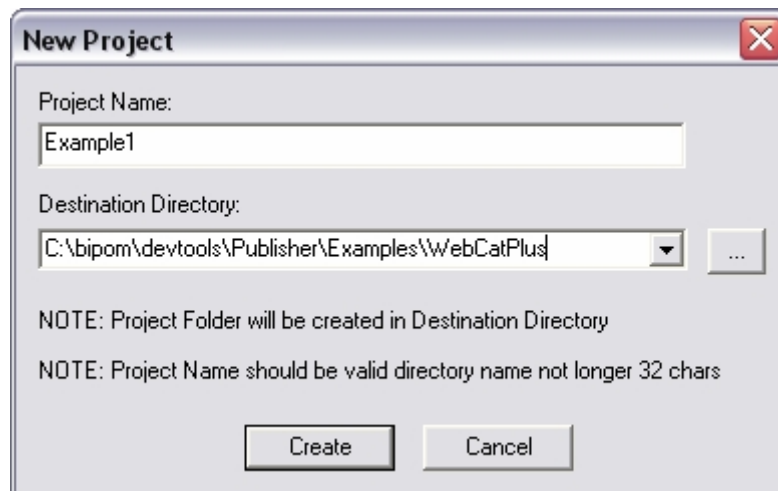
Tag is a special text which will be substituted during ASP page processing. When WebCatPlus web server gets a request from the remote browser, it reads HTM and ASP pages from its hard drive ( flash memory ) and detects tags in these pages. Tags are enclosed in ^ symbols. For example: ^CURVISITOR^. This tag will be replaced by the number of current visitor.

Let's create a simple example that shows how many visitors have already visited the site.

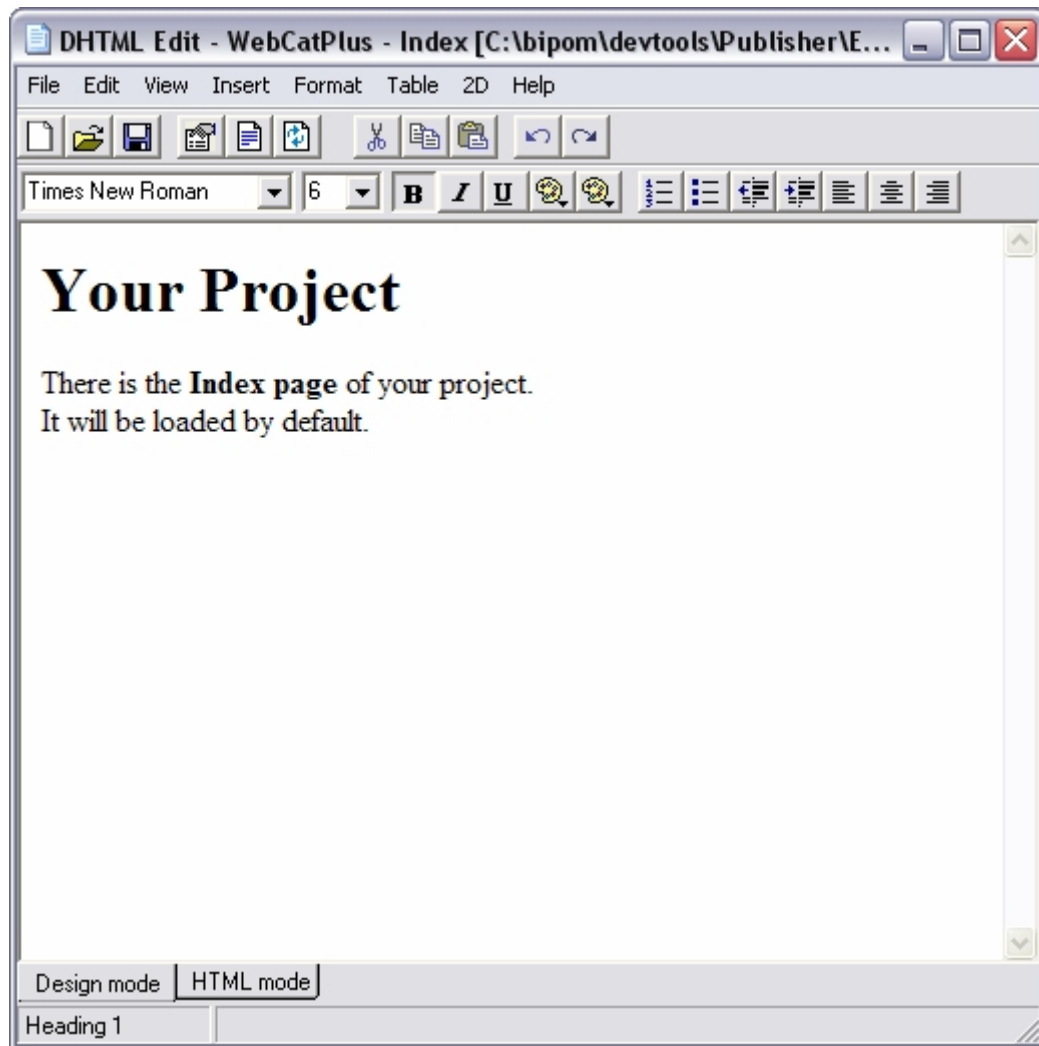
As first step, create a new project using the following name and destination folder:

Name: **Example1**

Destination Folder: **C:\bipom\devtools\Publisher\Examples\WebCatPlus**



Next, edit the main page of the site. Double click on **index.asp** page what was created by Publisher. The page will open in DHTML Editor.



This page contains a template text. We can simply remove it. Select all text and press **Del** button on keyboard.

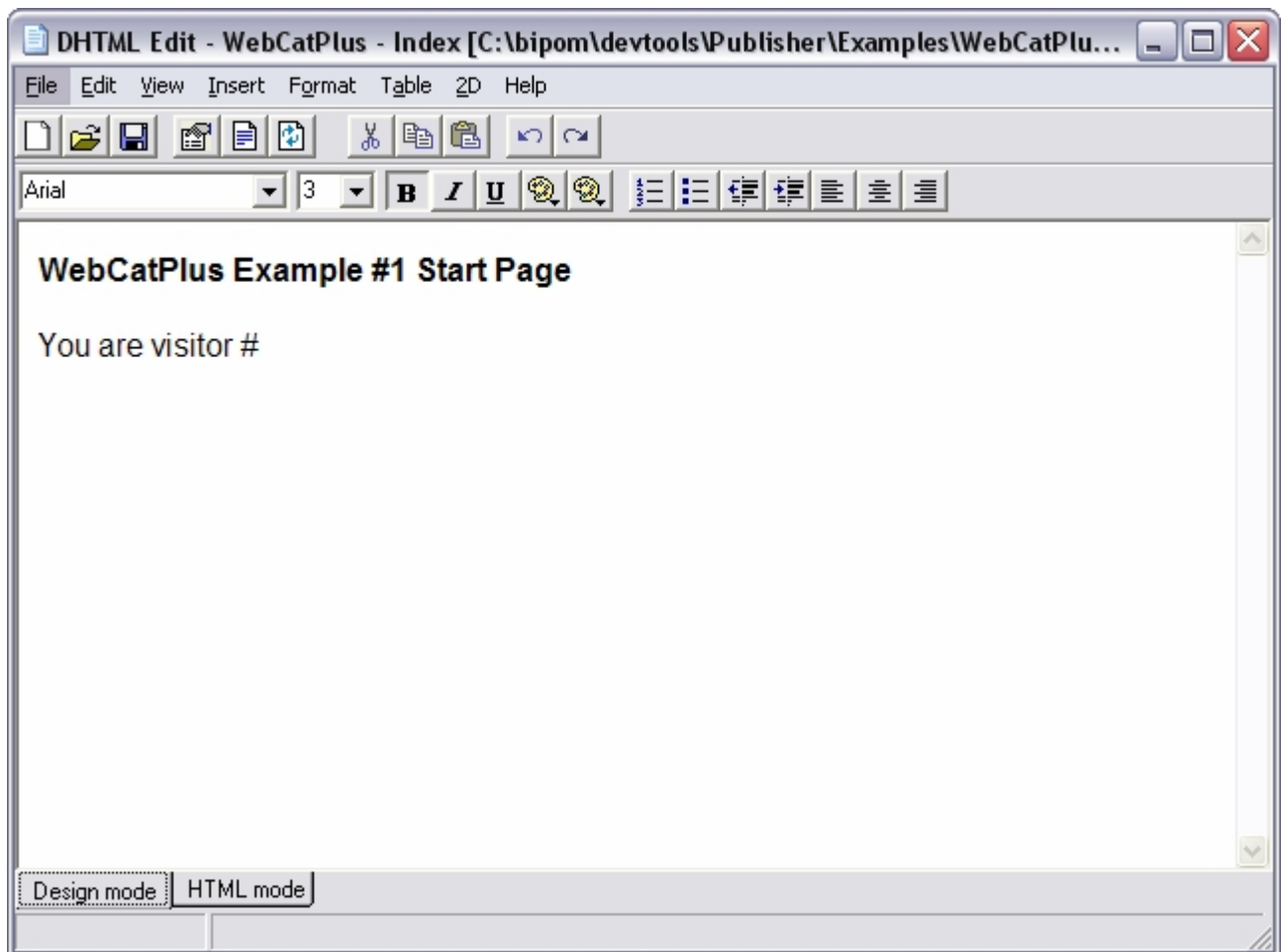
Then type the following text:

**WebCatPlus Example #1 Start Page**

**You are visitor #**

Then select first line of text and go to **Format** menu and click **Heading 1**.  
Then select second line of text, go to **Format** menu and click **Normal**.

The page will look like the following:



NOTE: Pages of a web site are regular text files with .HTM or .ASP extensions. The main difference between .HTM and .ASP is that .HTM is a static HTML file, while .ASP can include special WebCatPlus tags. Before sending the page to the client browser, WebCatPlus substitutes these tags with actual values. Only .ASP and .ATX pages are checked for existence of tags. On all other web pages, WebCatPlus skips tags.

Now insert the special tag ^CURVISITOR^.

WebCatPlus increments an internal counter when the default page is visited. If WebCatPlus detects the tag ^CURVISITOR^ on an ASP page, it will substitute this tag with the value of this internal counter.

When you type the address of your site in your browser:

<http://mywebsite/>

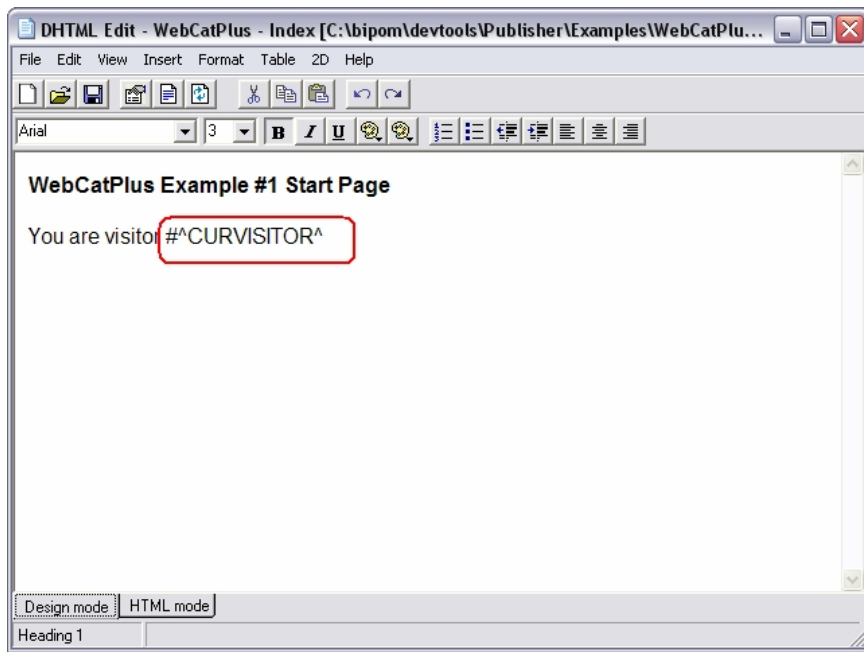
WebCatPlus server reads default page and increments the internal counter for ^CURVISITOR^ tag. If you type in browser address of your default page or any other page:

<http://mywebsite/index.asp>

WebCatPlus server does not increment the internal counter for ^CURVISITOR^ tag.

Insert this tag at the end of second line. Move text cursor at the end of text and type ^CURVISITOR^ text.

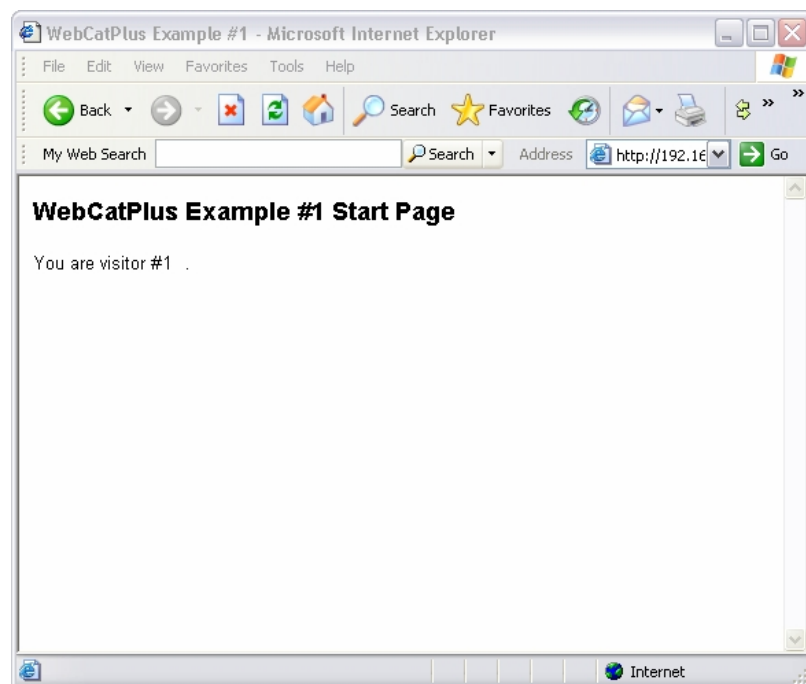




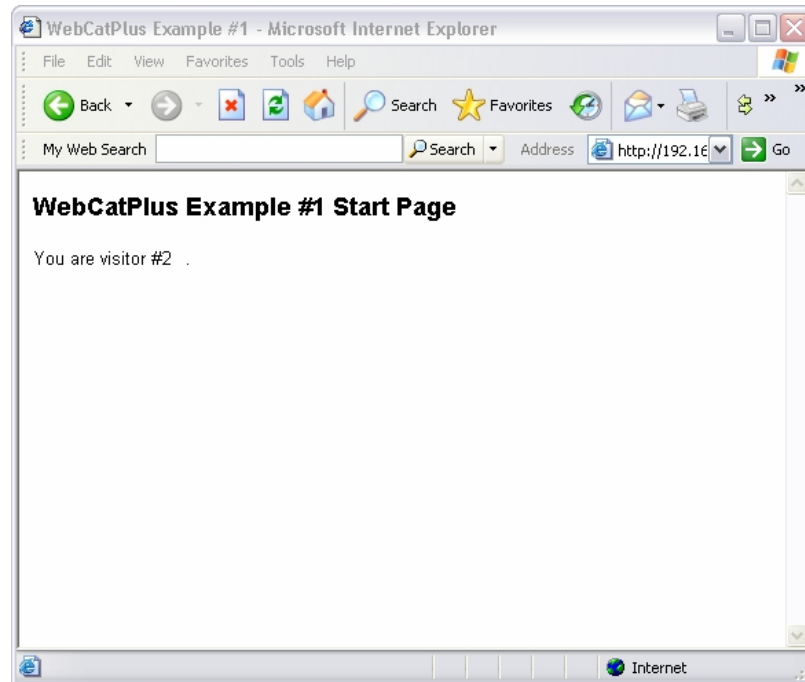
Save file and close the DHTML Editor.

In order to test this page, download this project to WebCatPlus web server. See chapter **6 Publishing an Example Project**

When you download this page to **WebCatPlus Web Server** and try to open the page, you will not see this tag. Instead, you will see a number. For example:



When you open this page again, you will see



You can use any tag in any place on an ASP page. A tag is always substituted with a real value.

## 10. Example #2: Real Time Clock (RTC)

This example demonstrates how to use tags for reading current time from Real Time Clock (RTC). ARM7 microcontroller has a built-in RTC with a battery-backup option. To read time/date values from the RTC, **WebCatPlus Web Server** has special tags:

Tag	Description
<b>^WCSEC^</b>	Value of seconds from real-time clock of LPC2138
<b>^WCMIN^</b>	Value of minutes from real-time clock of LPC2138
<b>^WCHOUR^</b>	Value of hours from real-time clock of LPC2138
<b>^WCDOM^</b>	Value of day of month from real-time clock of LPC2138
<b>^WCDOY^</b>	Value of day of year from real-time clock of LPC2138
<b>^WCMONTH^</b>	Value of month from real-time clock of LPC2138
<b>^WCYEAR^</b>	Value of year from real-time clock of LPC2138

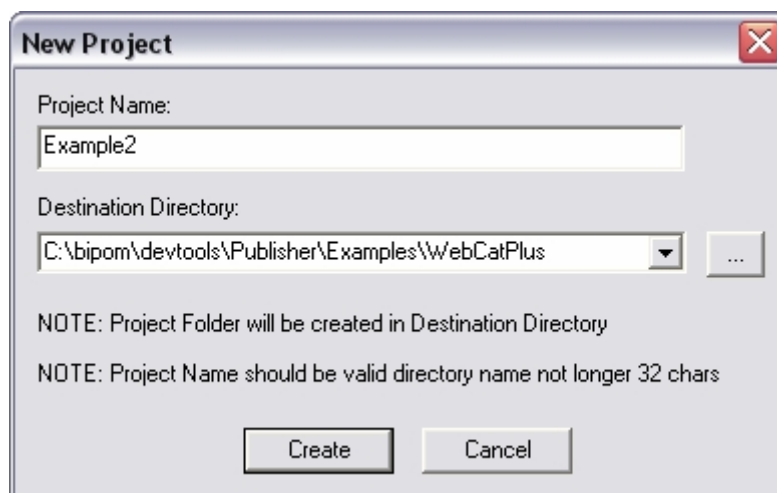
Table 1

We create a project that reads data from clock and shows current time and date on a page.

First, create a new project with the following name and destination folder:

Name: **Example1**

Destination Folder: **C:\bipom\devtools\Publisher\Examples\WebCatPlus**



Next, edit the main page of our site by double clicking on **index.asp** page what was created by Publisher. The page will open in DHTML Editor.

Select all text and press **Del** button on keyboard.

Then type following text:

```
WebCatPlus Example #2 Start page

Current time is : ^WCHOUR^ : ^WCMIN^ : ^WCSEC^
```

We use three tags for time: **^WCHOUR^** : **^WCMIN^** : **^WCSEC^**

These tags will be substituted with actual values when we try to open page **index.asp**. When **WebCatPlus Web Server** detects tag **^WCHOUR^**, it reads current HOUR value from RTC and substitutes this value in place of the special tag.

For other tags:

**^WCMIN^** is substituted with the current minutes value.

**^WCSEC^** is substituted with the current seconds value.

On the next line, add code that shows current date ( from RTC on WebCatPlus board )

```
WebCatPlus Example #2 Start page

Current time is : ^WCHOUR^ : ^WCMIN^ : ^WCSEC^

Current date is : ^WCMONTH^ / ^WCDOM^ / ^WCYEAR^
```

We use three tags for date: **^WCMONTH^** / **^WCDOM^** / **^WCYEAR^**

These tags will be substituted with actual values when we try to open page **example2.asp**. When **WebCatPlus Web Server** detects tag **^WCMONTH^**, it reads current MONTH from RTC and substitutes this value in place of the special tag.

For other tags:

**^WCDOM^** is substituted with the current day of month.

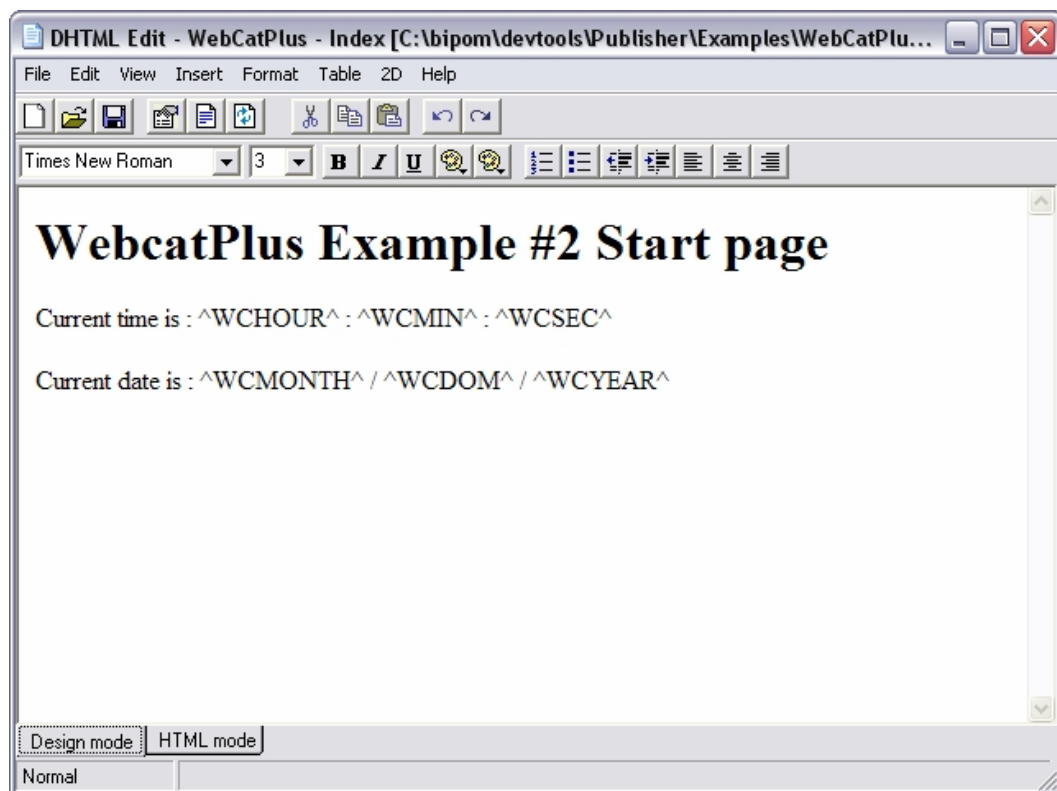
**^WCYEAR^** is substituted with the current year.

As last step, to select font formats:

Select first line of text and go to **Format** menu and click **Heading 1**.

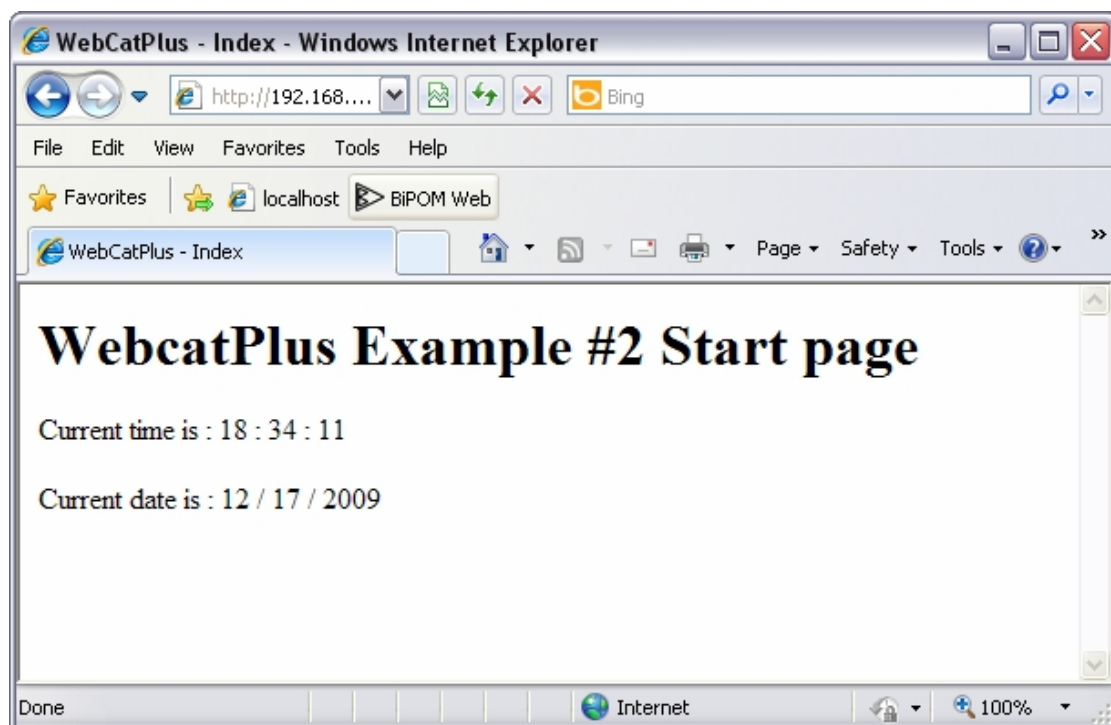
Select second and third lines of text, go to **Format** menu and click **Normal**.

After the steps above, you should see the final page as shown below:



Now save **index.asp**.

When you open this page, you should see a page like the following:



## 11. List of Examples

**WebCatPlus Publisher** installation includes the following examples:

- ADC
- DAC
- IO
- MOTOR
- RTC
- SERIAL
- VISITOR
- DEMO

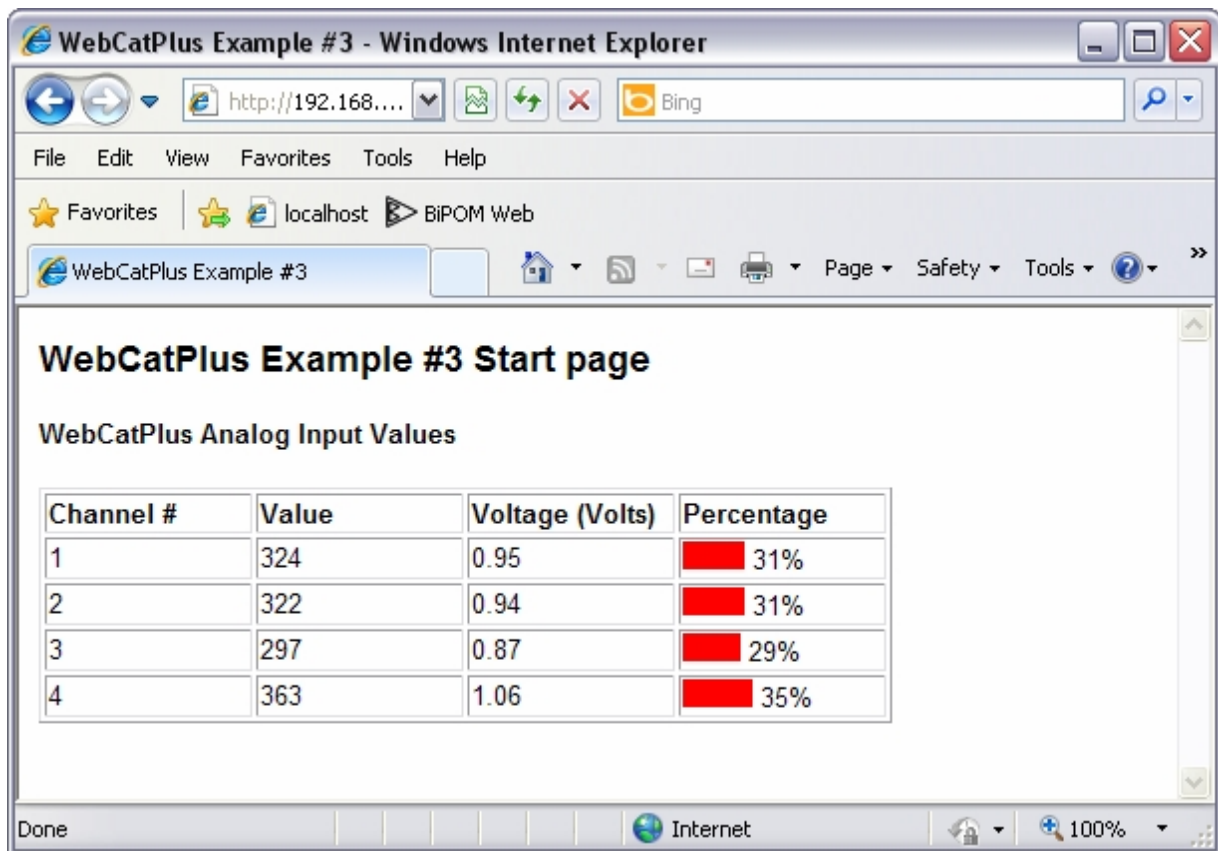
## 11.1 Analog Digital Converter (ADC)

### Description:

This example demonstrates how to read ADC channels on WebCatPlus Web Server and display them in a graphical form on the page.

### Used Tags:

^WCADC: [Number] ^



## 11.2 Digital Analog Converter (DAC)

### Description:

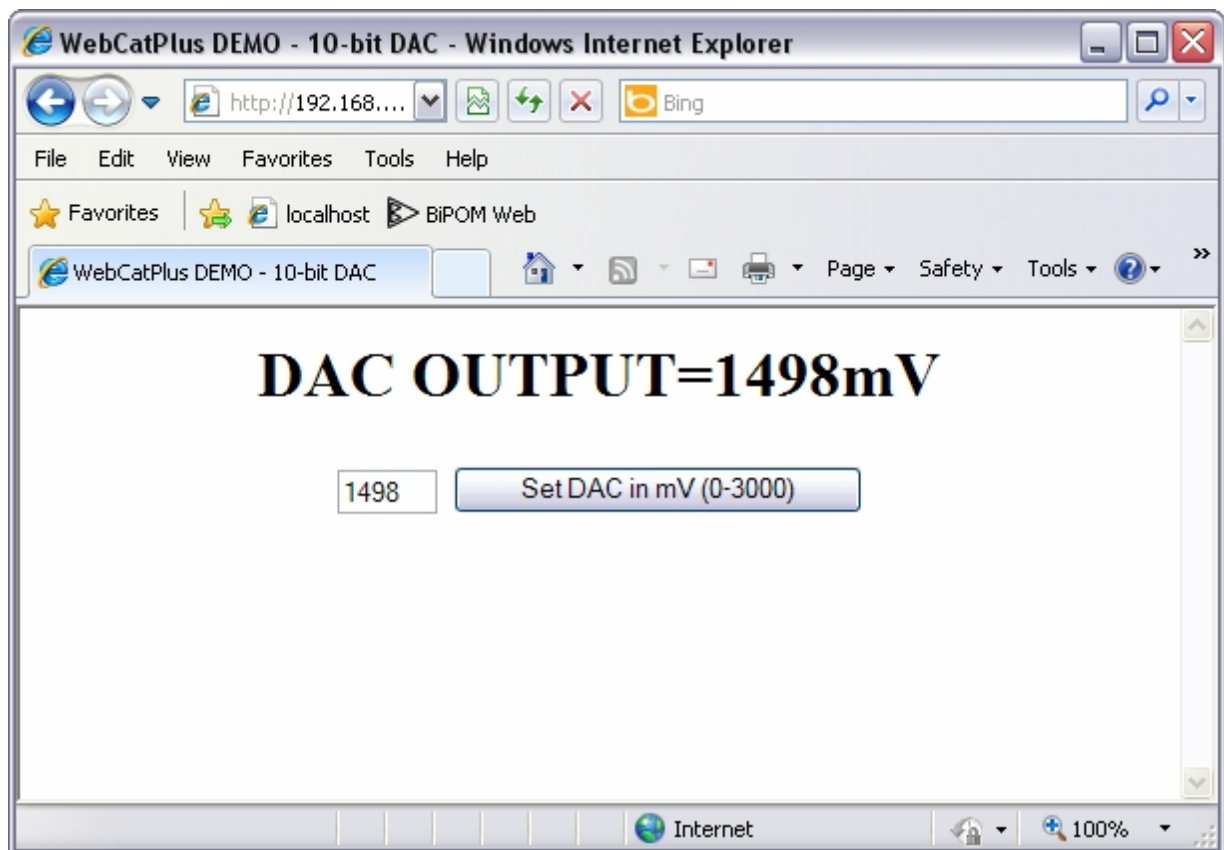
This example demonstrates how to set DAC value on WebCatPlus Web Server and display the current DAC value on the page.

### Used Tags:

^WCDAC^

### Used Remote Commands:

WCDAC





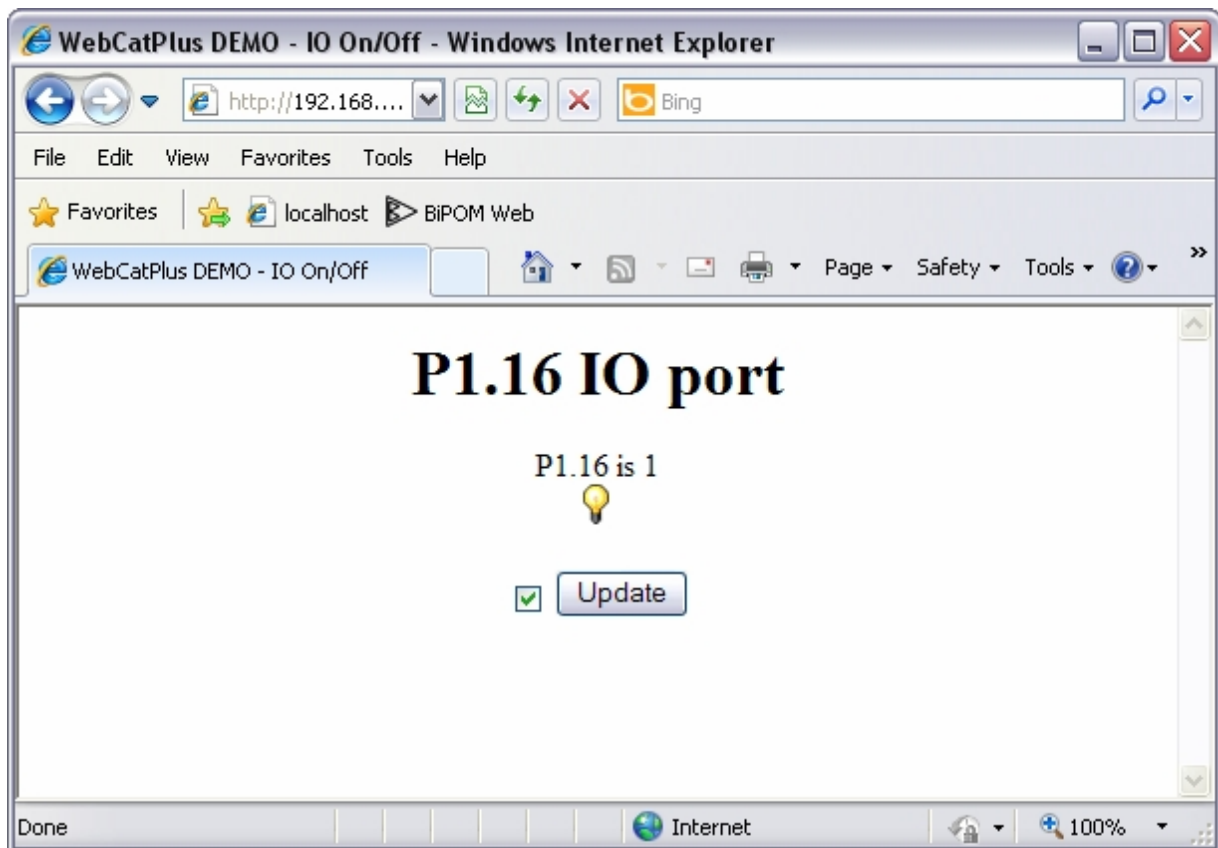
## 11.3 Input/Output

### Description:

This example demonstrates how to set/clear digital Input/Output (I/O) pins on WebCatPlus Web Server and display the current state of I/O pin on the page.

### Used Tags:

^P1.16^



## 11.4 MOTOR

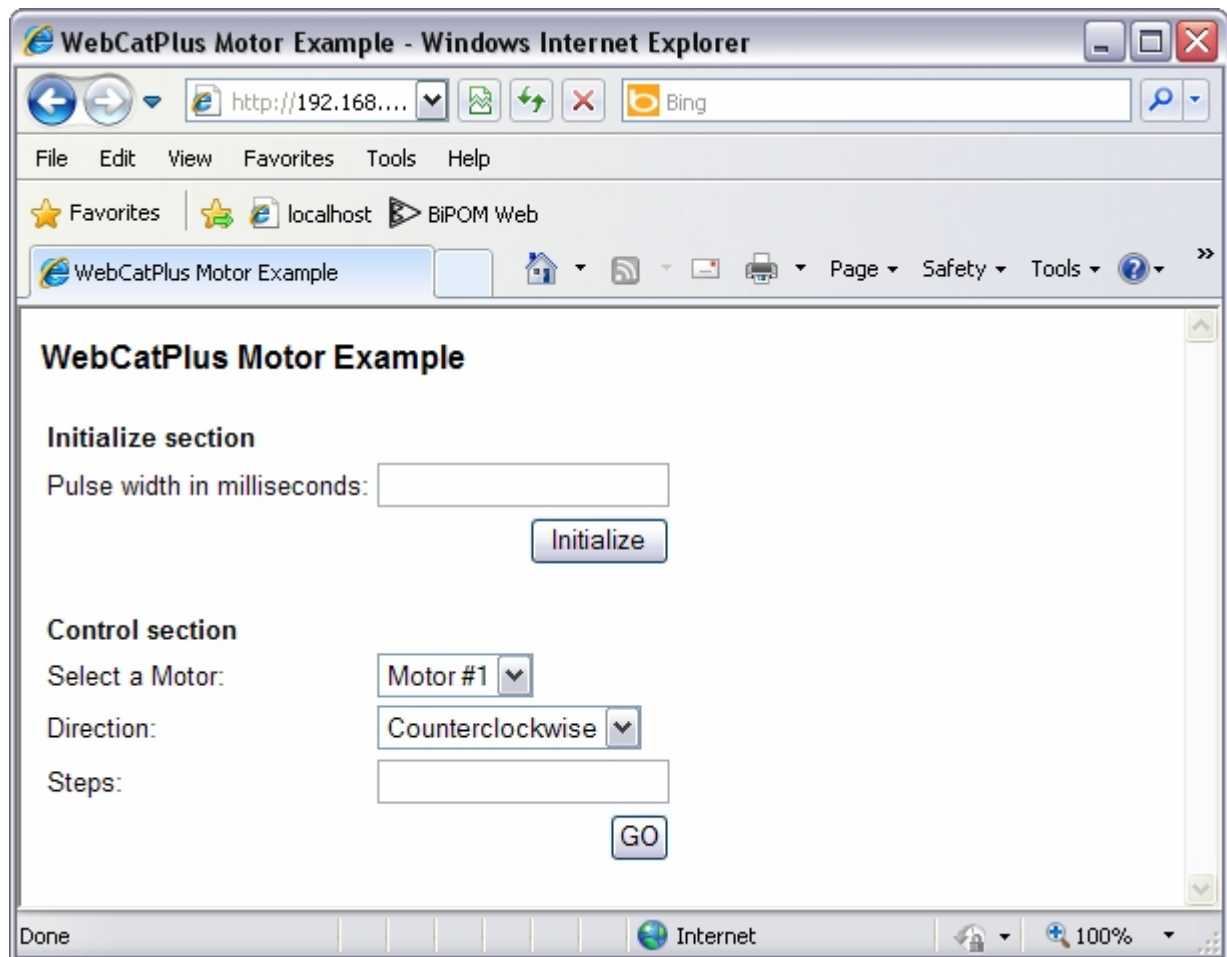
### Description:

This example demonstrates how to control stepper motors using WebCatPlus Web Server. It initializes the motors and turns them clockwise and counterclockwise.

### Used Remote Commands:

DMI

DM



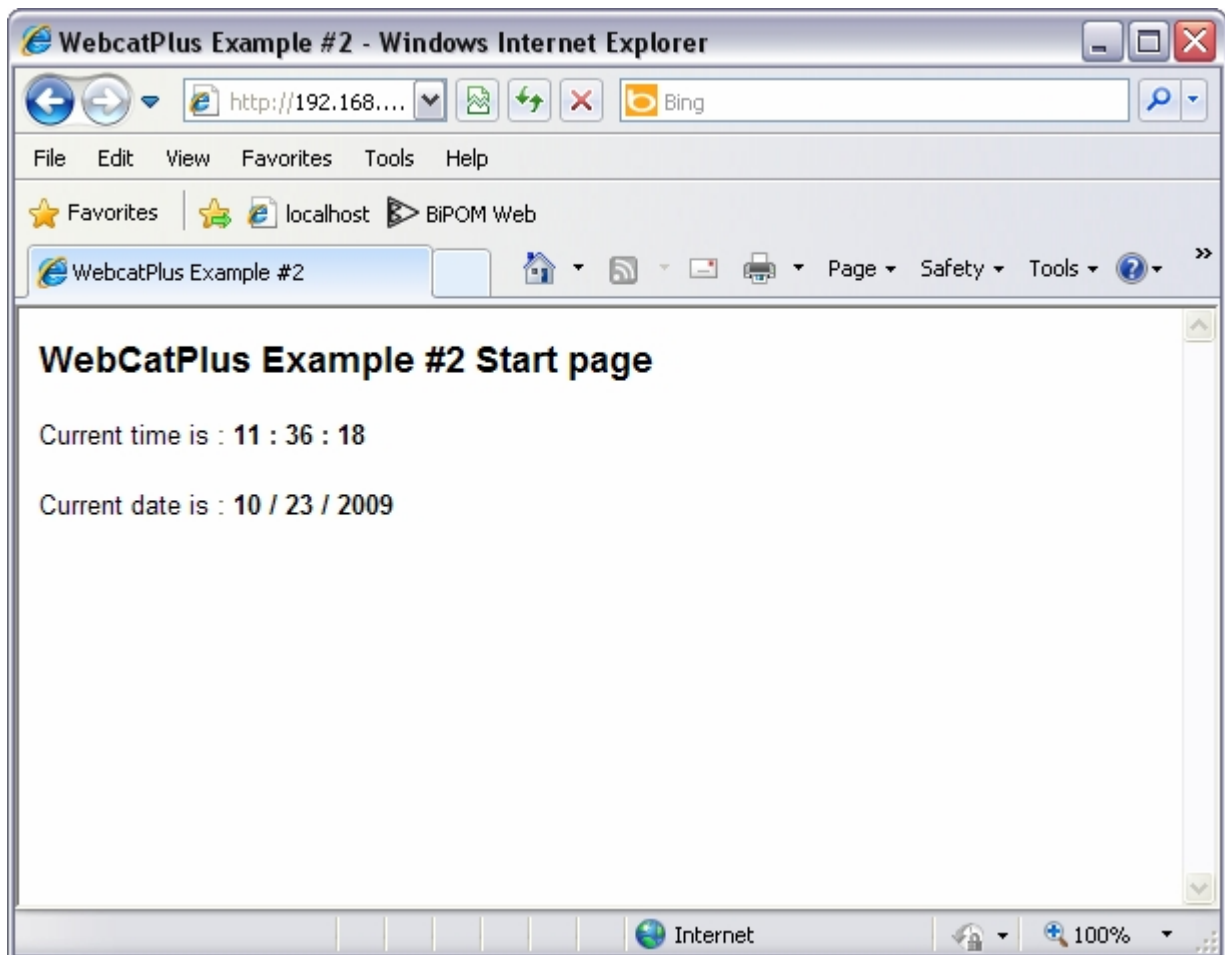
## 11.5 Real Time Clock (RTC)

### Description:

This example demonstrates how to show current date/time from WebCatServer RTC on the web page. This example uses tags that are substituted with values from hardware RTC registers.

### Used Tags:

^WCSEC^  
^WCMIN^  
^WCHOUR^  
^WCDOM^  
^WCDOW^  
^WCDOY^  
^WCMONTH^  
^WCYEAR^



## 11.6 SERIAL

### Description:

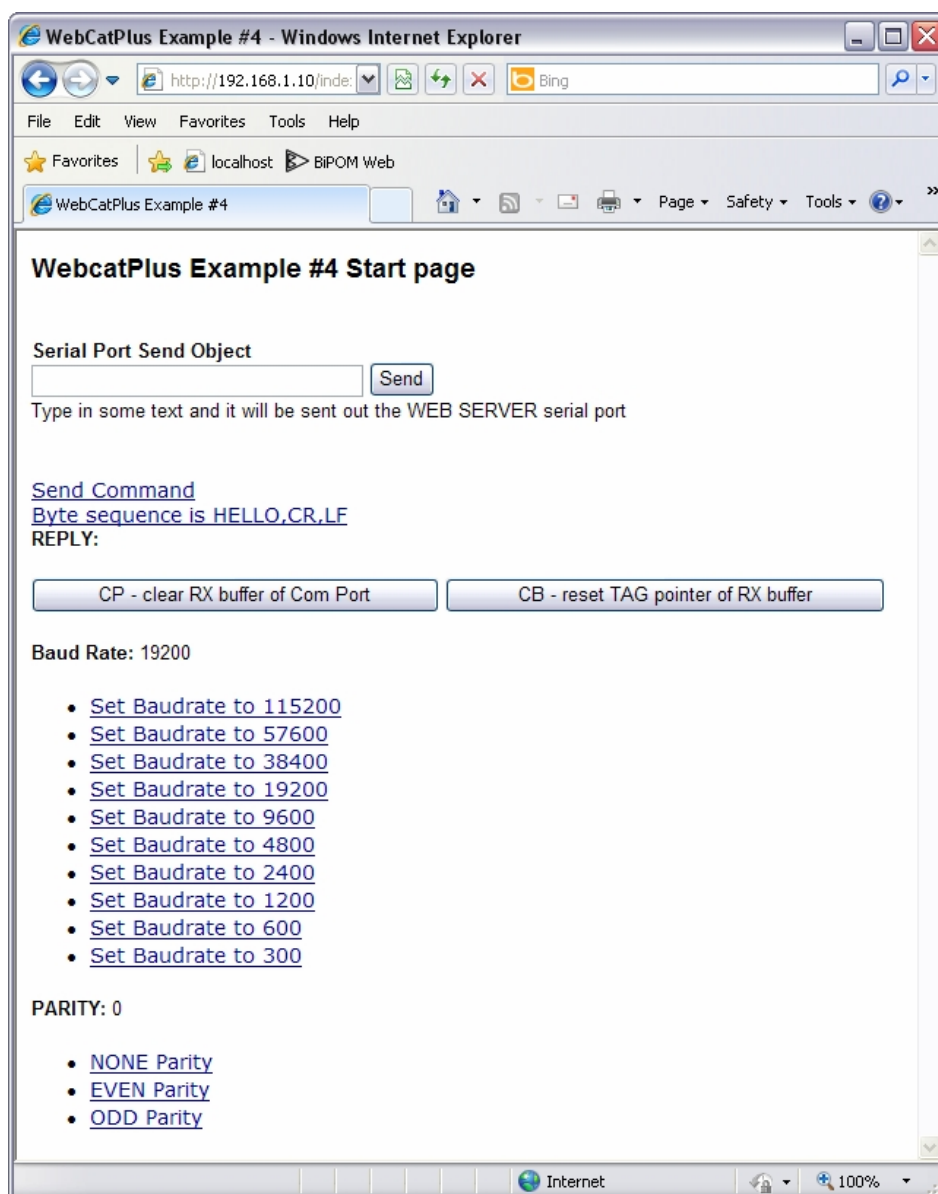
This example demonstrates how to send text to the serial port of WebCatPlus Web Server and display received data on the page. Also it shows how to configure serial port on WebCatPlus Web Server using remote commands.

### Used Tags:

^COM^

### Used Remote Commands:

COM  
COMSTR  
BAUD  
PARITY  
CLR



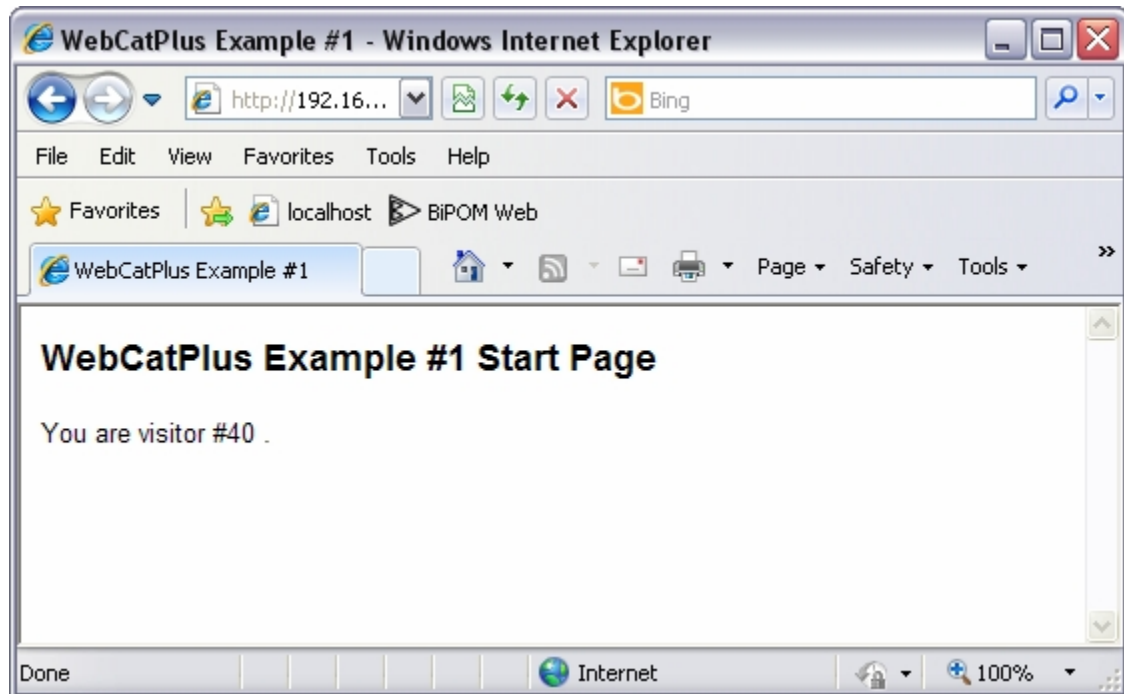
## 11.7 VISITOR

### Description:

This example demonstrates how to show internal WebCatPlus Web Server counter for number of visitors who access the web site.

### Used Tags:

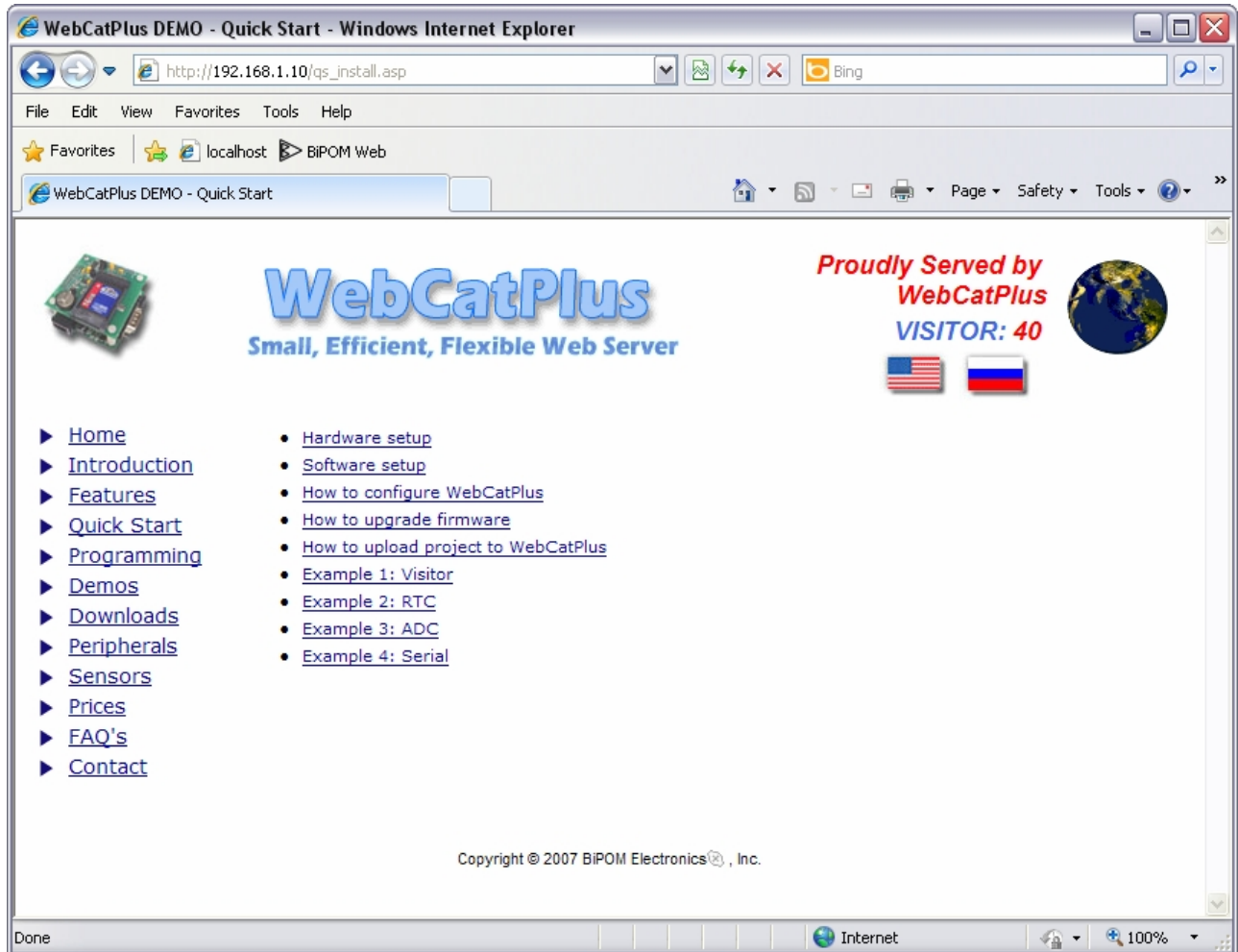
^VISITOR^

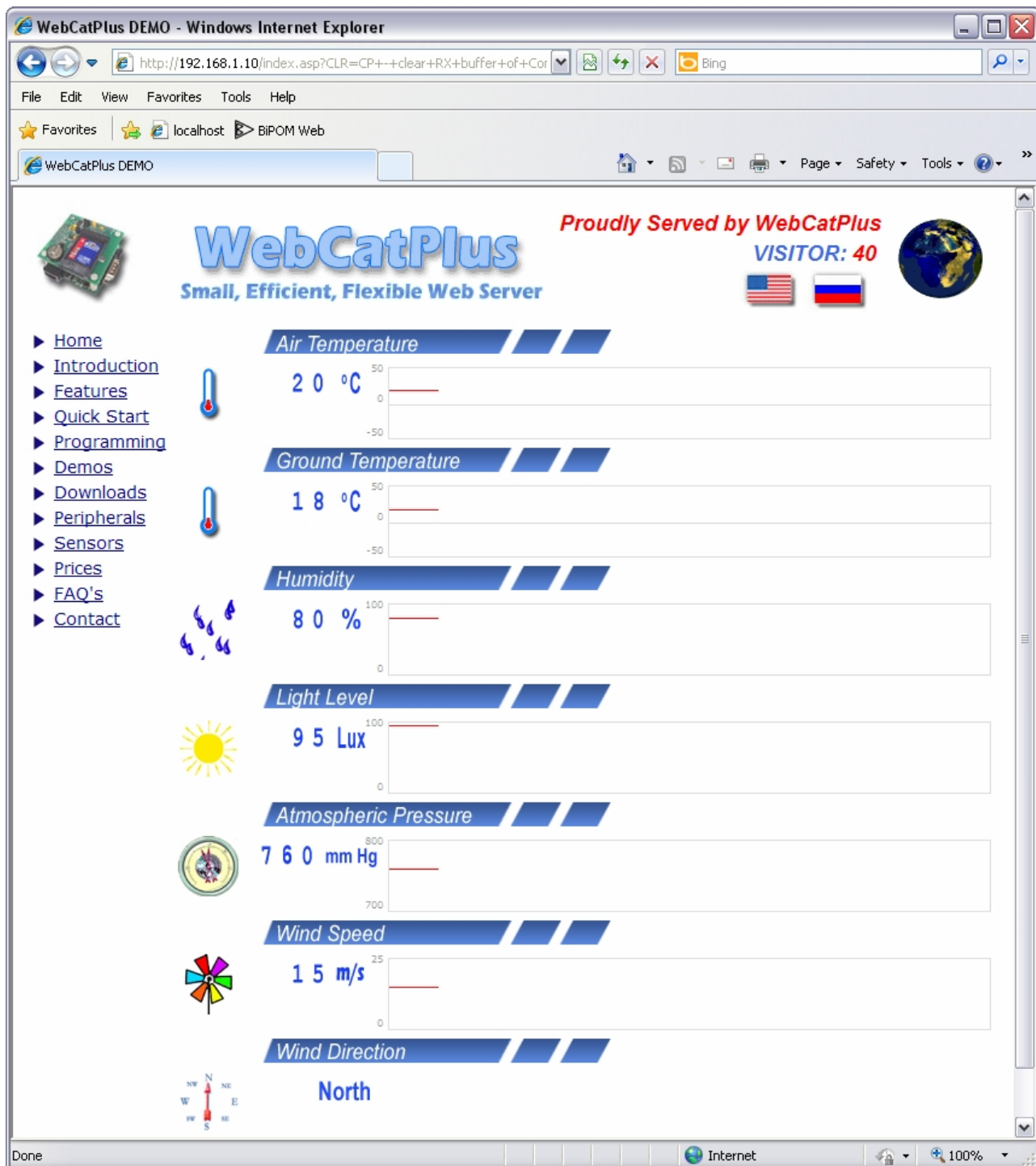


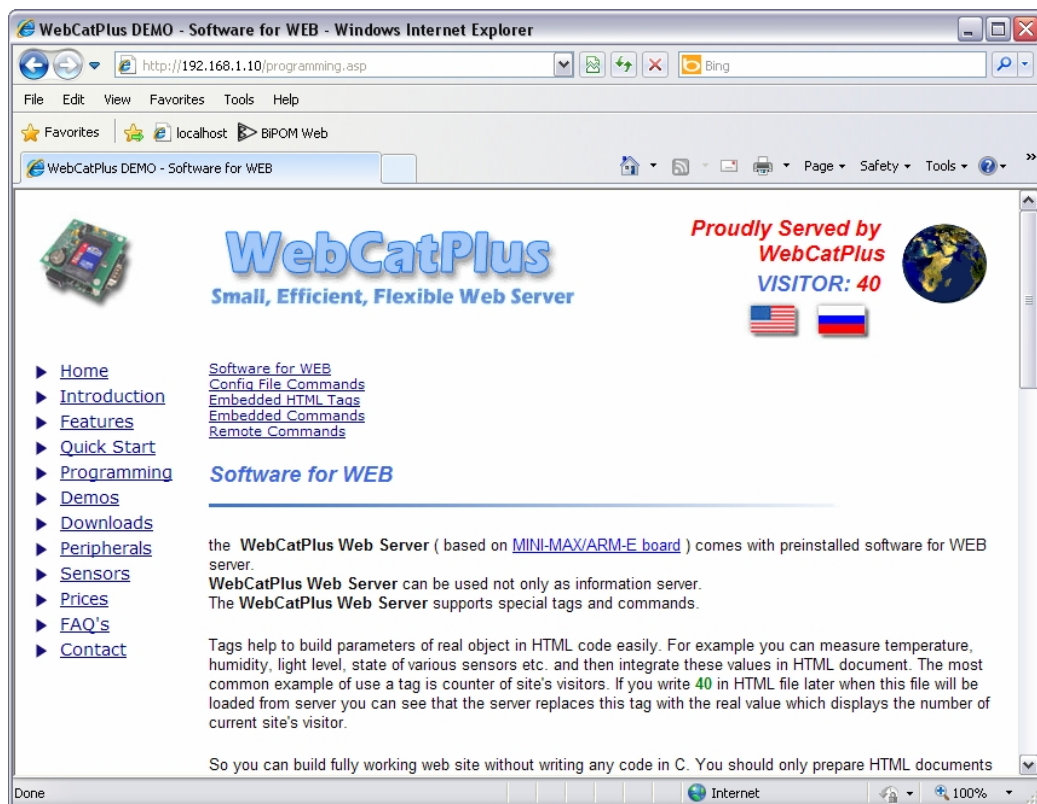
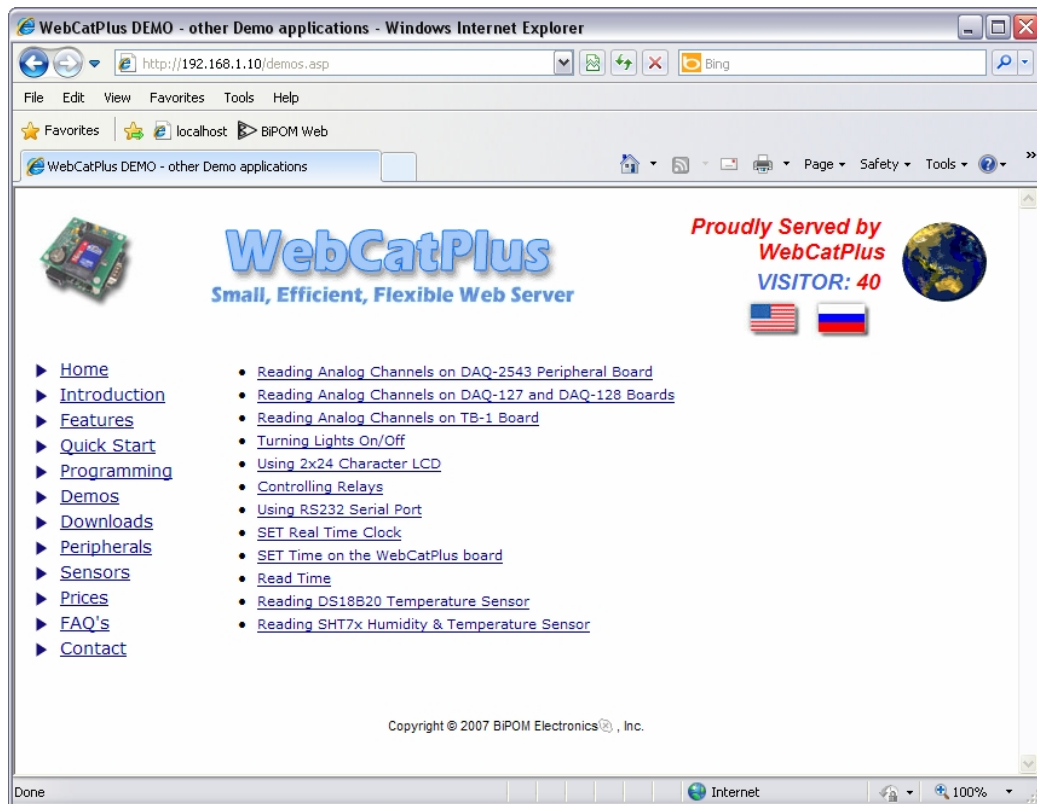
## 11.8 DEMO

### Description:

This example is the demonstration site that implements a Weather Station. This site also contains basic information about WebCatPlus Web Server, main features, programming of the server with description of all tags, embedded commands, remote commands and configuration files. The site also provides Quick Start pages that explain how to use WebCatPlus Publisher, working with Projects/Files, demo web applications, Frequently Asked Questions for WebCatPlus Web Server and useful links.









WebCatPlus DEMO - Reading DS18B20 Temperature Sensor - Windows Internet Explorer


http://192.168.1.10/ds18b20.asp

File Edit View Favorites Tools Help

★ Favorites localhost ► BiPOM Web

WebCatPlus DEMO - Reading DS18B20 Temperature S...




Home Page Safety Tools



# WebCatPlus

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- [Reading Analog Channels on DAQ-2543 Peripheral Board](#)
- [Reading Analog Channels on DAQ-127 and DAQ-128 Boards](#)
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- [Reading SHT7x Humidity & Temperature Sensor](#)

## Reading DS18B20 Temperature Sensor



# WebCatPlus

**Temperature 1 :** No Sensor

**Temperature 2 :** No Sensor

Done Internet 100%