

Internet Basic Developer Network

Newsletter 3

INTRODUCTION

Earlier today, we placed a new version of the INSTALL.EXE program on Signature's download site. Here are the changes we made in this release:

1. Fixed a bug with the "compile project" feature in the UltraEdit interface to the Internet Basic compiler. Previously, the error count was not being reset between programs.
2. Updated the Comet icon on the UltraEdit toolbar.
3. Updated the TAGLIST.TXT file to include the latest mnemonics and statements. You can activate this handy feature by pressing CTRL + F8 in UltraEdit. (Remember, you may need to initialize the feature by clicking the right mouse button in the taglist window, choosing "Modify Tags" and browsing to the TAGLIST.TXT file in the UltraEdit directory.)
4. Updated the Internet Basic documentation to include the latest mnemonics and statements. This file, which is named IBHELP.CHM, is a compiled HTML file that you can access from UltraEdit's menu (click on "Help" followed by "Internet Basic Help") or by highlighting a keyword in your program and pressing F1. We also updated the <http://www.internetbasic.com> web site.

Here are the mnemonics that are now included in the documentation:

(BeginWaitCursor)
(CapsOff)
(CapsOn)
(CASessions)
(DrawImage)
(EndWaitCursor)
(InitInputData)
(RestoreWaitCursor)
(SetPrinterInfo)

In addition, we added a major section to the documentation covering all of the controls that may be issued to the Winsock gateway.

WINSOCK GATEWAY CONTROLS

Last October, we published a Comet Tip about sending e-mail directly from your Comet programs. We included a number of examples and provided a sample program named SENDMAIL. That program makes use of the Winsock gateway, which is configured as a type 3 gateway in SYSGEN and available in Comet2000 and higher.

When we wrote about sending e-mail, we mentioned two of the controls that can be used with the Winsock gateway, namely CONTROL and WEOL. We have included the complete list of Winsock gateway controls in the "Applications" section of the latest Internet Basic documentation. They are:

CLOSE
CONNECT
CRLF
DISCONNECT
GETERROR
LISTEN
OPEN
QUIT
TIMEOUT
WEOL

You can use these controls to communicate over the Internet using industry-standard, application-layer protocols such as SMTP (e-mail), FTP (file transfer), HTTP (web pages), etc. The Internet Basic documentation includes the SMTP examples we wrote about in the aforementioned Comet Tip, as well as information on how to write a "spider" program that uses HTTP.

ALONG CAME A SPIDER

When you use a search engine, do you ever wonder how all of that information got into the search engine's database? It turns out that the search engine companies employ automated programs that "crawl" around the worldwide web looking for data. These programs are called "spiders" (they're also called "crawlers" and "bots"). Here's how they work:

A spider program connects to a specific web site using HyperText Transport Protocol (HTTP). The program then retrieves the contents of the web page and stores relevant information in the search engine's database (some search engines grab keyword information only, while others grab the entire page). Spiders analyze the contents of the page, typically looking for hyperlinks (other web pages where the spider can visit), e-mail addresses, or other pertinent data.

In the case of a search engine, spiders are typically programmed to visit sites that have been submitted by their owners as new or updated. Entire sites or specific pages can be selectively visited and indexed. While you sleep, spiders crawl the web...

Using the Winsock gateway, you can create a spider in Internet Basic. In fact, we've done just that in a demo program named HTTPDEMO.IBS (available in the "Demo" folder at Signature's download site). Here's what the demo program does:

1. prompts for a domain name to connect to (default is signature.net)
2. prompts for a web page to retrieve (default is <http://www.signature.net/test.htm>)
3. connects to the domain name (a gateway control)
4. gets the web page (an HTTP command)
5. retrieves the web page contents via the Winsock gateway (using the READ statement)
6. displays the contents on the screen (using the PRINT statement)

In effect, HTTPDEMO is a "web browser," except that this demo program just retrieves a specific web page but doesn't interpret or render the HTML on the screen.

How valuable is this feature to you? We think it could be very valuable. Suppose you want to include a specific piece of information in your Comet application, and the source of that information is someone's web page. Simple, you write a spider that retrieves the specific web page and then searches through the contents of the page until it finds the sought-after data. Thus, your program has instant access to the most current data from the web page. We encourage you to experiment with this feature and let us know what clever applications you think of.

In a future newsletter, we'll explore File Transfer Protocol (FTP) and the Winsock gateway.

THINGS TO DO

1. Download and run IBINSTALL.EXE
2. Read the updated documentation for the mnemonics and Winsock gateway
3. Look at the updates on <http://www.internetbasic.com>
4. Look at the updated taglist in UltraEdit
5. Download and run HTTPDEMO
6. Write a spider program