



## WSGopher Help Contents

### Getting started

For background you'll want to know [what is Gopher?](#). The [introduction to WSGopher](#) will get you started with this client, and [configuring WSGopher](#) will help you get set up. If you are a new Windows user, then [controlling your Windows environment](#) will be important.

You will want to read the [Copyright Information](#).

### WSGopher basics

In WSGopher you will use [bookmarks](#) to [fetch items](#) from [host computers](#). WSGopher uses [dialogs](#) to help with certain kinds of tasks; there are some shortcuts that are worth knowing about. Of course it is always good to know how to [get help](#).

When you are ready, you will want to learn [what is Gopher+?](#)

### WSGopher windows

Find out about [the WSGopher main window](#), particularly if you are not familiar with multi-window applications.

You can fetch Gopher items from a [directory window](#), view text documents in a [text window](#), retrieve images and other binary files in a [download window](#), search remote databases with a [search window](#), search white pages servers with a [phone book window](#), fill out forms with an [ask form window](#), and launch telnet sessions from a [telnet Information window](#).

### WSGopher tools

You can [find text](#) in a window within WSGopher. You can [show information for an item](#). You can [print](#) and [print preview](#). You can also [save items to disk](#) and [copy to the clipboard](#). You can also [change the font](#).

### Miscellaneous

Find out [what's changed in WSGopher 1.2!](#) For some troubleshooting help, take a look at [understanding error messages](#).

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**See also**  
[Credits](#)

## **Credits**

WSGopher 1.1, both the binary and this help file, were written by Dave Brooks. Ellisa Evans, Dale Evans and Ted Fuller reviewed the help file.

Some Toolbar and directory bitmaps are the property of Ken Blackney, and are used with permission. Certain toolbar buttons were provided by Eivind G. Hoel and are used with permission.

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### ***See also***

[Copyright information](#)

## Introduction to WSGopher

WSGopher is a program for Microsoft Windows 3.1 and WinSock 1.1. WSGopher was designed to be a tool for work as well as a program that browses the Internet. The version number for WSGopher 1.1 reflects the development of this program, and is only coincidentally the same as the current WinSock specification.

WSGopher communicates with Gopher information *servers*; there are thousands of these servers on the Internet, offering a variety of information.

WSGopher also supports Gopher+, which adds a number of features to the original Gopher.


### WSGopher terms

Like any popular technology, Gopher has a terminology that accompanies it. WSGopher combines Gopher with Windows; so, even a Gopher expert will see a few more terms here than they may be used to.


A Gopher *item* is a directory, text document, image, search, etc.; anything you can retrieve or activate in Gopher is an item. In WSGopher, each item has it's own specialized window.

A *document* is the term sometimes used to describe a Gopher directory or text item. In WSGopher it refers to the actual data associated with a Gopher window.

A *bookmark* is the description of how to retrieve a Gopher item. There is [a more detailed description](#) available.

*Fetch* refers to the process of retrieving a Gopher item. Since it involves the network, it is possible that you may see some errors. The term 'fetch' is also the key to understanding the  Toolbar button.

Graphics within WSGopher like  or

 are called **bitmaps** in this document. Some users may be more comfortable with the term **icons**, so 'icon' has been added to the help file's Search menu. Everything indexed as 'bitmap' is also indexed as 'icon', even though that word does not appear in the text.

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### See also

[What is Gopher?](#)

[What is Gopher+?](#)

[Features list for WSGopher](#)

[What s new in WSGopher 1.1](#)

## What is Gopher?

Gopher is a tool for gathering information in a network of computers. Some people use it as a browser, others as an essential part of their daily work.

Gopher originated at the University of Minnesota. Sometimes a definition of Gopher includes a reference to the furry rodent which is U of M's mascot.

If you've used a computer for a little while, you probably know you have a disk drive in there somewhere, and you've heard the term directory. A directory on your computer contains files and other directories.

Gopher [directories](#) contain items such as [text](#) documents and other directories. You can think of a Gopher directory in much the same way as you do a directory on your computer, with a few key differences:

- Everything in a Gopher directory is on the network, rather than on your local disk drive;
- You'll find a greater variety of items in a Gopher directory than you do on your disk drive.

Let's comment just a bit on the last point. On your disk you'll find directories and files. Sure, there are files of many kinds, but they are still just files. With Gopher you also have keyword searches on remote databases, log in sessions to other computers, interactive forms to fill out, and a variety of files you can download.

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### **See also**

[Introduction to WSGopher](#)

## Overview of Bookmarks

In real life, a bookmark is something you use to hold your place in a book or other reference material. Later, you can go right back to the information you need, when you need it.

Gopher keeps track of information in a similar way. Every item you can get to via Gopher has a bookmark; in fact, a Gopher [directory](#) is just a set of bookmarks.

The thing the bookmark points to is sometimes called an *item* or Gopher item.

### What's inside a bookmark?

A bookmark contains:

- a title
- the [host](#) the item is stored on
- the port (needed by the network software, you usually don't worry about this)
- the selector, or the command used to fetch the item
- the type

The type matters because it influences how WSGopher fetches the item for you. Text should go into a text window; a directory window won't know what to do with it. If you fetch a directory into a text window, it won't be very informative (unless you are an ace Gopher troubleshooter).

### What can you do with bookmarks?

In WSGopher you can add a bookmark to a collection of stored bookmarks, arranged in [categories](#) of your own choosing. You can then do many things with these categories of bookmarks, using the [Bookmark Editor](#).

Sometimes you will want to tell your friends and coworkers about something you have found via WSGopher; one easy way to do this is to [copy the bookmark](#) to the Windows clipboard, then paste it into a mail message or memo.

You can also look inside a bookmark with the [Information](#) window.

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### **See also**

[Introduction to WSGopher](#)

## Overview of Hosts

A host computer is the term used to describe a computer on the network that is offering some kind of service. You can make an analogy between computers and houses like so:

- There are lots of houses in the neighborhood, and lots of computers on the network.
- At one particular house is a party, and you're invited; specifically, the host says you're welcome.
- You know the name of the host, but you'll have to look up his or her address.
- Chances are, you'll find the address without difficulty! Occasionally you may find a host whose address you can't look up, or for some reason you can't get to the address (maybe the streets are being repaired!)

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### ***See also***

[Bookmarks](#)

[Fetching a Gopher item](#)

[Understanding Error Messages](#)

## Fetch a new Gopher item

In WSGopher there are several ways to fetch a Gopher item:

1. You can select an item in a directory window, then click the **Fetch** button, or press the ENTER key.
2. You can use the Fetch Bookmark menu to quickly go to the bookmark of your choice.
3. You can use the Bookmark Editor, and while you are there you can fetch.
4. You can use the New Gopher dialog to enter item information ad hoc, or perhaps paste a bookmark or URL from the Windows clipboard that you copied from another application.

If someone suggests that you gopher to a particular server, or if you see something interesting posted to Usenet, then the New Gopher dialog is the dialog for you.

## Getting Started

The simplest way to use the New Gopher dialog is to enter a hostname and press the ENTER key. For example, to go to "gopher.uiuc.edu", you simply press the TAB key to bypass the title field, type `gopher.uiuc.edu`, and press the ENTER key. The port field refers to the numeric TCP/IP port that Gopher servers use; the default is 70, and this works for most hosts.

If the announcement you read says to use "dewey.tis.inel.gov 2010" then you'd put "dewey.tis.inel.gov" in the **Server Name** field as before, press TAB to go to the port field, type 2010 and press the ENTER key.

## A Use for Cut and Paste

Let's say you're reading Usenet and you see an announcement for an interesting new Gopher server that looks something like the following:

```
Name=Gopher Jewels
Type=1
Port=70
Path=1/remote/other-gopher/gopher-jewels
Host=crocus.csv.warwick.ac.uk
```

This is a fairly common way to represent a bookmark but it is more typing than you should be required to do. So, copy the text into the Windows clipboard, then in WSGopher bring up the New Gopher dialog. Note the **Paste** button. Usually it is dimmed, but now it is active. When the New Gopher dialog comes up, it looks in the Windows clipboard for text that resembles what we see above. Click on the **Paste** button, or use ALT+P, and the entire bookmark is copied into the dialog; even the item type is correct. Press the ENTER key and you're in business.

The dialog is smart enough to separate the bookmark text out from whatever other text may be in the Clipboard. You can have text above and below, and to the left of any or all of the fields; also, the fields do not have to all be present, or be in the order shown.

To reiterate:

1. In the mail reader/newsreader/etc., copy the bookmark to the Windows clipboard
2. In WSGopher: New Gopher, ALT+P, ENTER

The section on [Pasting Bookmarks from the Clipboard](#) gives more information on how the



paste function distinguishes bookmarks from other text.

### **Shortcuts**

Keys: CTRL+N

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### ***See also***

[Fetch a Gopher item](#)

## Visit your Home Gopher

Many users like to connect to a particular Gopher server when WSGopher starts up. You can also reconnect to that server while you are running WSGopher..

### Shortcuts

Keys: CTRL+H

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### ***See also***

[Set your Home Gopher server](#)

[Go to the top of the Gopher outline](#)

## Fetching a Gopher item

When you fetch a Gopher item, a number of steps are involved. You will usually see something in the Status Bar which reflects what is going on; occasionally you may run into an error message. So, a basic understanding of what is involved should be helpful.

When WSGopher fetches an item:

1. It resolves the hostname; this means that WSGopher makes a request to your network's Domain Name Server (*aka* DNS) to convert the name of the host that the item is stored on, to an address that WSGopher can use.
2. Next, WSGopher tries to connect to the host. Making a connection is kind of like calling someone on the phone: first you need the phone number; then you may get a busy signal ("Connection refused"), or a pre-recorded message ("Too many connections, try again later"); hopefully, you'll usually get through.
3. When the connection gets through, WSGopher sends a request to the Gopher server. The server uses this information to identify the item you want.
4. WSGopher then prepares to receive the data. If the item you are fetching is a directory, then the data is in the form of bookmarks; if the item is a text document, then the data is lines of text; etc.
5. As WSGopher receives data, it reports progress in the Status Bar, or if you are downloading a binary file, in the window. If the size of the file is known, then the percentage complete is also shown.

Some Gopher items require some input before you can fetch an item. The [Ask form](#) requires you to answer one or more questions. When you are [downloading](#) a file, you may need to use the File dialog box to fill in a file path.


Several Gopher items are interactive queries. With a [search](#) item, for each text string you wish to search for, WSGopher creates a separate directory window to hold the results of the search. With a [phone book](#) item, each time you pose a search request, WSGopher displays the results in the phone book window, overwriting the previous results.

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### **See also**

- [- what is it?](#)

## Fetching a Gopher item as something else

Occasionally you will need to fix bookmark that is incorrect. Let's say your directory shows "greatprg.zip" as a text file, that is,  is next to it. When you fetch this file, you see gibberish. Here's what to do about it:

1. Highlight the "greatprg.zip " item in the Gopher directory window
2. Select **Fetch Item As** from the **File** menu
3. Change the type to **DOS Archive**, then click the **OK** button or press ENTER.

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### **See also**

[Fetch a Gopher item](#)

## Fetch bitmap - what is it?

- This is a picture of a dog fetching a stick. It's another one of Ken Blackney's clever bitmaps.

Hopefully, the location of a Gopher item won't be a fast moving target like a thrown stick! But, life is an adventure, and the network is just one more example.

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### **See also**

[Toolbar](#)


## Information on a Gopher item

This window shows all the available information on a Gopher item. In addition to the normal stuff like hostname, port, item type, etc. the Info dialog will show extended information if the item is [Gopher+](#). This information may include the name and address of the administrator of the Gopher server; the extended views available for this particular item; a brief abstract; and possibly other data.

The easiest way to dismiss this dialog is to click in the window and press the Esc key, or click the **Close** button.

To see information for the active window, press the  Toolbar button. Note that the information first displayed applies to the entire window, **not** to any item that might be selected in the window. To see the info for a particular item, simply click on that item, even if it is already highlighted. The Info window will be updated with information about the selected item. To see the bookmark for another window, just select that window; the Info dialog is automatically updated

You can resize the window by moving the cursor to the top, bottom, sides or corners; when the cursor changes to an arrow shape, drag the edge of the window until it is the size you prefer.

You can minimize the Information window by pressing the  Toolbar button in the upper right corner of the window. You can restore the window by double clicking the open book icon.

### Shortcuts

Keys: CTRL+I

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### See also

[Copying bookmarks to the clipboard](#)

[Understanding error messages](#)

## Save an item to disk

You can copy a Gopher item that you have already fetched to a disk file on your computer by selecting Save Item in the File menu. Currently, you can only save a [text](#) item to disk.

WSGopher will prompt you for a file name, via the Save As file dialog box. WSGopher fills in the item's title, or a portion of it, as the filename. The default extension is "txt". However, you can select any directory, filename and extension you like.

To save the item, click the **OK** button.

To cancel saving the item, click the **Cancel** button.

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### **See also**

[Fetch a Gopher item as something else](#)

## Deleting downloaded files created by WSGopher

This dialog shows files you have downloaded in this session. Normally, WSGopher treats these files as temporary and deletes them on exit. You can circumvent this in the Download window or with this dialog.

To make a file not be deleted on exit, that is currently slated to be, click on the item in the list. Notice that the 'x' in the first column is now gone. Similarly, click on the item again to change this setting.

At the bottom of the dialog you'll notice a status line that contains the number of marked files and their total size in bytes. This text is updated whenever you click on an item to mark or unmark it.

The **Delete Now** button will delete the marked files now, rather than later when WSGopher exits.


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### **See also**

[Downloading items](#)



## Printing in WSGopher

Use this command to print a document. If the active WSGopher window supports printing, then the **Print** option in the **File** menu is enabled, along with the  button in the Toolbar.

The **Print** command presents a [Print dialog box](#), where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.

### When does WSGopher use the Printer font?

WSGopher tries to accommodate two different preferences in printing. One preference is to print using the same font as the window you are printing from. The other is to print using a font you select for the printer.

To find out which preference will be followed, go to the **Configure/Font** and look at the item **Use Printer Font**. If it has a check mark next to it then all printing will use the font you have chosen in the Printer Font dialog. Otherwise, a font close to the window font will be used.

To change this setting, simply select **Use Printer Font** from the menu. This will add the check mark if it wasn't there, or remove it if it was there.

### Material printed

If the current window is a [Directory](#) window, then the titles in the directory are printed.

If the current window is a [Text](#) or [Phone book](#) window, and if any of the text or search results are selected, then the selected text is printed; otherwise, the entire document or search results are printed.

### Controlling output

The [Page Setup](#) dialog provides some control over how the printed page will appear. The [Print Setup](#) dialog also influences factors including orientation (portrait vs. landscape) and which printer the output is sent to.

When you print, the Print dialog box appears; you have the option of printing all pages, or a specified range. The easiest way to tell which pages you want to print may be to preview first.

### Shortcuts

Toolbar:



Keys: CTRL+P

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### See also

[Printer font](#)

[Use Printer font](#)

## Exiting WSGopher

Use this command to end your WSGopher session. You can also use the **Close** command on the application Control menu.

### Shortcuts

Mouse: Double-click the application's System menu button.



Keys: ALT+F4

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### **See also**

[Controlling your Windows environment](#)

## Copying to the clipboard

Use this command to copy text onto the clipboard. This command will work slightly different, depending on the type of Gopher window you are copying from:

- for Directory windows, all directory titles are copied to the clipboard
- for Text windows, if you have selected text, then just the selected text is copied; otherwise the entire document is copied
- for Phone book windows, if you have selected one or more lines from the results window, then those lines are copied; otherwise all the results are copied
- for the Bookmark Editor, for each bookmark you have selected in the Bookmarks list, the "canonical" form of the bookmark is copied to the clipboard.

Copying data to the clipboard replaces the contents previously stored there.

### Shortcuts

Toolbar:



Keys:

CTRL+C

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### **See also**

[Copying bookmarks](#)

## Copying a bookmark: Step-by-Step Procedure

To copy a bookmark from a Gopher [directory](#):

1. Make the window the active Gopher window.
2. Bring up the [Information](#) dialog with the ■ Toolbar button
3. Optionally select a portion of the text with the mouse; I recommend starting at the top and selecting do the line above URL; *or* select just the URL.
4. Click the **Copy** button or press CTRL+C

The bookmark is now copied to the Windows clipboard.

To copy a bookmark within the [Bookmark Editor](#):

1. select the item by clicking on it
2. click the button labeled "**Copy**"


You can copy more than one bookmark at a time using the Bookmark Editor.

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### **See also**

[Copying to the clipboard](#)

## Finding text

You can search for text within a Gopher item you have already fetched. Select **Find Text** from the **File** menu, or click the  button in the Toolbar. The Find dialog will appear.

The search starts at your current selection, or the top of the window if you have not selected anything.

To search for text

- Enter the text you wish to search for in the field labeled Find What; WSGopher does not support word search, so if your text contains spaces or other separators, that is what WSGopher will look for. WSGopher does not span lines looking for text.
- Click the **Match Case** toggle if you want to do case sensitive searches; otherwise, case will not matter
- Choose between **Up** and **Down**, depending on which direction you want the search to go

WSGopher will search for your text, and will select the item containing the text. For text windows, WSGopher will select the matched text.

If WSGopher gets to the end or beginning without finding the text, it will display a dialog stating "Text not found".

## Find text settings

WSGopher will "remember" the settings you used to search for text, and restore those when you next search for text with the Find dialog, or use **Find Text Again**.

## Boolean text search within WSGopher

WSGopher 1.1 supports a method of text search called Boolean. This means you can use two search strings at a time, and apply a little logic to your search.

Let's say you were searching for Steven Brown, but you weren't sure if his name was spelled Steven or Stephen. If you had a list of Browns, then the search string

Steven OR Stephen

would match either Steven *or* Stephen. It's pretty simple. The layout is this:

<search string> <VERB> <search string>

The < and > are not included, as we saw in our example. WSGopher expects one or more spaces between the search string and the verb, both on the left or the right. It removes those spaces, but spaces inside the search strings are untouched. That means that

Steven OR Stephen

is the same as

Steven OR Stephen

The following table describes the Boolean verbs used by WSGopher.

<b>Verb</b>	<b>Meaning</b>
<b>AND</b>	Both strings must be found in order to match
<b>OR</b>	Either string will cause a match
<b>NOT</b>	The first string must be found, but NOT the second
<b>ADJ</b>	Both strings must be found; furthermore, the distance <i>between</i> the strings must be half or less the length of the entire string

### **Boolean search in a text document**

When you do a Boolean search in a text document, and if WSGopher matches a string, then the text it highlights starts at the beginning of the first matched string and ends after the second matched term.

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### **See also**

[Finding text again](#)

[Searching on the net](#)

## Finding text again


Once you have used Find text, you can search again for the same text, in any Gopher window that supports text search. Merely activate the window you wish to find text in, then find text. You can search for the same text in as many windows as you like.

Typically, you will find text again after you have dismissed the Find text dialog.

If you want to change the text, the direction or case matching, you must use the Find text dialog.

Find text again supports the new Boolean searches.

### Shortcuts

Toolbar:   
Keys: F3

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### **See also**


[Finding text](#)

## Adding Bookmarks

You can add the bookmark for the active item in WSGopher, to a bookmark category. The active item is one of the following:

- If the active window is not a directory window, then the item in the window is the active item
- If the active window is a directory window, then the selected item in the directory window is the active item

To add a bookmark, use **Add Bookmark** in the **Bookmark** menu, or use the  Toolbar button.

To add a bookmark for a directory window, use **Add Directory Bookmark** in the **Bookmark** menu, or use the  Toolbar button.

### Which category does it go into?

If you have selected one category to be the default category, then the bookmark will automatically be added to that category.

Otherwise, WSGopher brings up the category window; you can select one of the listed categories, or create a new category and select that. You can also rename and delete categories while the category window is up.

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### **See also**

[Categories](#)

[Set a default category](#)

[Adding directory bookmarks](#)

[Getting information on a Gopher item](#)

[Pasting bookmarks in the Bookmark Editor](#)



## Bookmark Editor

Each Gopher item you see in a directory, or that you retrieve, is described by a *bookmark*. Like most Gopher clients, WSGopher lets you store bookmarks on your hard disk so that you can fetch items of interest without navigating through Gopher directories.

WSGopher organizes your bookmarks in named categories. The Bookmark Editor gives you access to all the bookmarks in a given category, and lets you switch categories. The Bookmark Editor and the Category window work together to let you create, delete and rename categories while you are working with your bookmarks. You can also use the Category window independently of the Bookmark Editor.

The Bookmark Editor gives you the following access to your bookmarks:

- Shows you the current category and number of bookmarks in the category
- Shows titles of all the bookmarks in a scrolling list
- You can easily modify a bookmark just by selecting it and making desired changes
- You can select one or more bookmarks in the list; you can then copy them to the clipboard, delete them, or move them to a new category
- You can paste multiple bookmarks from the clipboard. This gives you the ability to share bookmark categories easily via electronic mail.
- A status line at the bottom of the Bookmark Editor shows you the results of your actions, and shows intermediate steps as they take place, in potentially long actions.

### To select more than one bookmark

You can do this in one of several ways:

- Put the mouse cursor over a bookmark in the list. Press the left mouse button, hold it down, then sweep the cursor up or down to select other bookmarks.
- Or, select a bookmark, then press and hold the SHIFT key and select another bookmark. The first and last bookmarks and all bookmarks in-between are selected.
- Finally, to select bookmarks that are not near each other, press and hold the CTRL key and select bookmarks as you wish. The CTRL key acts as a toggle; it will selected bookmarks that aren't selected, and unselect bookmarks that are already selected.

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### **See also**

[Introduction to WSGopher](#)  
[Overview of Bookmarks](#)  
[Category Window](#)

## Fetching a bookmark

In the Bookmark Editor, you can fetch a bookmark by doing one of the following:

- First select the bookmark, then click the **Fetch** button
- Or, double click the bookmark

Note that if you select more than one bookmark, the **Fetch** button becomes disabled. Future versions of WSGopher may support fetching items "en masse".

---

### ***See also***

[Bookmark Editor](#)

[Fetching Gopher Items](#)

## Modifying a bookmark

You can easily modify a bookmark in the Bookmark Editor with the following steps:

1. Select a bookmark in the list. You can select more than one bookmark, but you will only be able to modify the topmost selected bookmark.
2. Edit the fields as appropriate; the fields are between the Categories droplist at the top of the Bookmark Editor, and the bookmark list. You can change text, use the Item type droplist to change the type, and use the Gopher+ toggle to change that setting.
3. Click on any item in the bookmark list. The changes are now committed to the bookmark. You can also click the **Fetch** button to change, then fetch, a bookmark.
4. Click on the **OK** button to commit changes to disk.

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### ***See also***

[Bookmark Editor](#)

## Deleting one or more bookmarks

In the Bookmark Editor, you can delete one or more bookmarks from a category at a time:

- If you select one bookmark, then click the **Delete** button, the Bookmark Editor deletes the bookmark. Note that the Status line shows you the title of the deleted bookmark.
- If you select more than one bookmark, then click the **Delete** button, the Bookmark Editor first confirms your action by popping up a dialog box. If you click **OK**, the bookmarks will be deleted; if you click **Cancel**, they won't.

---

### **See also**

[Bookmark Editor](#)

[Moving bookmarks to another category](#)

## Copying one or more bookmarks to the clipboard

Copying one or more bookmarks to the clipboard is pretty simple.

First, select one or more bookmarks. Then click the **Copy** button. The status line shows what happened.

### Why would you do this?

Good question. If you have one or more bookmarks you wish to share with a colleague via electronic mail, or insert into an electronic memo, then this is the way to do it. No typing is ever involved; just use the Bookmark Editor and click a few buttons, then in your mail package insert the bookmark text from the clipboard.

If you prefer to type, you could do something like this:


"First go to gopher.tc.umn.edu, port 70; then select 'Other Gopher and Information Servers'; then select 'All the Gopher Servers in the World'; then search for 'Idaho' until you find 'University of Idaho' and go there ...

Bookmarks may not make clear reading, but they're easier to work with.

### Sharing Categories

Another reason for copying bookmarks to the clipboard is that, if you have developed a specialized category of bookmarks, you can easily share the entire category, or selected portions, with your coworkers or fellow researchers. Just copy the bookmarks to the clipboard, paste them into an electronic mail message, then mail them to the interested parties.

I have had these categories mailed to me, and this is how I handled it:

1. I received the message in my Eudora mailbox.
2. With the message window as the active window, I went to the **Edit** menu in Eudora and selected **Select All**. I then pressed CTRL+C to copy to the clipboard.
3. In WSGopher I pressed the  Toolbar button, and created a new category with the Category window.
4. In that category I clicked the **Paste** button, and all my bookmarks appeared. I clicked the **OK** button to save them, and I was finished.

### Note:

- When the Bookmark Editor pastes bookmarks from the clipboard, it is robust enough to skip most other kinds of text. This has been fairly well exercised, though your results may vary.
- If you use a different mailer than Eudora, then the method for copying the message to the clipboard may be different than what is shown here.

---

### **See also**

[Bookmark Editor](#)

[Pasting one or more bookmarks from the clipboard](#)

## Pasting one or more bookmarks from the clipboard

Pasting bookmarks into a category, using the Bookmark Editor, is probably one of the simplest operations in WSGopher. All you need to do is click the **Paste** button. All the bookmarks in the clipboard will be processed, and new bookmarks will be added to the current category. Also, each bookmark is highlighted so that you can easily see the new ones.

### How paste works

1. We look at the Windows clipboard; if it doesn't contain text, then we do nothing. WSGopher isn't quite bright enough to paste a bitmap that looks like a bookmark, for instance.
2. Starting at the beginning of the clipboard, and working our way through, we look for the string 'Host='. When we stop finding it, we quit.
3. If we find 'Host=', then we also look for 'Name=', 'Type=', 'Port=', and 'Path='. We can always fill in default values for these, but there is no default for 'Host='.
4. Order is not important; the 'Host=' string can be before or after the others, and no particular order is assumed.

Let's say that the Windows clipboard contains the following:

```
{ forwarded from ... }
Here's a copy of a bookmark I just retrieved from Usenet; thought you would
like it.
>Name=Gopher Jewels
>Type=1
>Port=70
>Path=1/remote/other-gopher/gopher-jewels
>Host=crocus.csv.warwick.ac.uk
That's it. Catch you later.
```

WSGopher starts at the top of the text, the line that says 'forwarded from ...'. It finds 'Host=', and ignores the '>' character. It also finds the rest of the information in this bookmark, since it starts at the top each time. After it finds all it can, WSGopher goes past the last field it found and starts looking again. Actually, in this example, WSGopher would start at 'crocus' and search forward.

---

### **See also**

[Bookmark Editor](#)

[Copying bookmarks to the clipboard](#)

## Moving one or more bookmarks to a different category

It is fairly easy to move bookmarks to another category, in the Bookmark Editor.

1. Select one or more bookmarks from the bookmark list.
2. Click the **Move** button.
3. The Category window will come up. You can do anything you like to in the Category window, but typically you will either select a category from the list, or create a category and select it.

If you select a category and click on OK, then the Bookmark Editor will:

- Load the new category
- Add the selected bookmarks to it
- Save the new category
- Delete the bookmarks from the current category
- Save the current category


---

### ***See also***

[Bookmark Editor](#)

[Category window](#)

## Go to the top of the Gopher outline

When you click the  Toolbar button, you will go to the top directory for the active window's bookmark. The icon resembles a directory in outline format, the way you may see it in the Windows File Manager; the arrow points from an item in the outline to the top item.

### What does this mean?

In the [What is Gopher?](#) topic we talk about Gopher directories, how they are on other host computers in the network, and how they contain other Gopher items. Gopher is organized this way on purpose; it resembles how files and directories are organized on your computer, and most people are at least familiar with that.

Let's take the analogy one step farther. Each drive on your computer has a top directory; for instance, the C drive has C:\. Gopher is similar in that most, if not all, Gopher servers have a top directory of Gopher items.

### Why would you want to do this?

If you are Gophering around the network and find an item that interests you, it doesn't make much sense to get the top directory for that Gopher server. However, if you have just done a Veronica [search](#) and found an item of interest, then it may be very attractive to look elsewhere on that server for similar items. That is usually the reason that the 'top of the outline feature' has been requested.

---

### **See also**

[Bookmarks](#)

[Host computers](#)

[Directories](#)



## Category window

WSGopher organizes bookmarks into named categories. The name is one of your own choosing, though there is a practical limit to what you can see on your screen.

Each category contains bookmarks; the category could be empty, or potentially it could contain thousands of bookmarks. If you like to have large categories, then it's best to have a computer with lots of memory, because that's where WSGopher keeps bookmarks when you are working with them in the Bookmark Editor.

With the Category window you can:

- [Create new categories](#)
- [Rename categories](#)
- [Delete categories](#)
- [Set or unset a default category](#)

---

### ***See also***

[Bookmark Editor](#)

## Creating categories

To create a new category, enter the new name in the **Name** field at the top of the Category window, then click the **Create** button. WSGopher searches the already existing categories to make sure that this name isn't in use;

- if it is, then the Category window puts up a dialog to tell you so
- otherwise it creates the category and selects it in the scrolling list

---

### **See also**

[Categories](#)

## Deleting categories

To delete a category, select a category in the list and then click the **Delete** button. If WSGopher can delete the category, then it will remove the category and all the bookmarks in the category from your collection, and will remove the category from the list in the Category window.

### When can't WSGopher delete a category?

If you are using the [Bookmark Editor](#), then WSGopher will not let you delete the category you are currently editing.

---

### **See also**

[Categories](#)

## Renaming categories

To rename an existing category:

1. Select the category in the category list
2. Type a new name in the **Name** field at the top of the Category window
3. Click the **Rename** button

There are several things WSGopher checks for when you rename a category:

- You must select a category first
- The new name can't be one already used by a category
- It can't be empty, that is, you must specify a name

### **What happens when you rename a category you are using in the Bookmark Editor?**

WSGopher does the obvious thing; the Bookmark Editor shows you it is now using the new category name.

---

#### ***See also***

[Categories](#)

[Bookmark Editor](#)

## Set a default category

At the bottom of the Categories window you will see a droplist. Click the down arrow on the right of the droplist, and you will see all the category names. At the top of this list is the text `<no default category>` ; choosing this text means there will be no default.

Choose any other item in the droplist to choose that category as the default. The Categories window will also select your choice in the categories list.

### What does default category mean?

If you have chosen a default category, then whenever you [add a bookmark](#) with the ■ Toolbar button, or bring up the Bookmark Editor with the ■ Toolbar button, WSGopher will use the default category rather than bring up the Category window and force you to choose.

If you will be working a lot with one category, this feature will save you some time.

---

### **See also**


[Categories](#)

[Bookmark Editor](#)

## Setting file associations in WSGopher


WSGopher includes a Viewers dialog which enables you to set up file associations, independently of the Windows File Manager. Specifically, when you ask WSGopher to view a file you have downloaded, WSGopher will use the filename extension (the three characters after the '.' or period) to figure out which program on your PC to run.

If you select **Viewers** from the **Configure** menu, then use these steps to **add** file associations:

1. Type an extension in the field labeled **File extension**
2. Click the  Toolbar button. This will bring up the [Browser](#). Find the correct program, click the **OK** button, then click the **Add** button in the Viewer dialog. The extension and viewer are added to the list of viewers.
3. Repeat as needed, then click the **OK** button in the Viewers dialog to save your changes.

**Note:** if you view a file that WSGopher cannot find a viewer for, either in its own configuration or in the File Manager, WSGopher will pop up the Viewers dialog and fill in the extension for you. You should browse for a viewer as shown above, and click the **Add** button, then the **OK** button in the Viewers dialog.

To **modify** file associations:

1. Select the extension and viewer in the list of viewers
2. Use the  button to find the correct viewer
3. Select any view in the list to save your changes, or click the **OK** button to save your changes and exit the dialog.

---

### **See also**

[Viewers](#)

## Configuring WSGopher

There are several things you should probably set up when you install WSGopher:

- [Set your Home Gopher Server](#)
- Set the [directories](#) WSGopher will use
- Set up [viewers](#)
- Set the path and command line parameters for your [telnet and 3270](#) emulator programs
- Set convenient [fonts](#) for your windows
- Set a font for your [printer](#), and whether you wish to [use the printer or window font](#) when you print with WSGopher
- Check the [User Options](#) dialog for other setting you may wish to change

At some point, you may also like to check the [extended views](#). You can set the paths for viewers for these views, and change the [ranking](#).

---

### **See also**

[Introduction to WSGopher](#)

## Setting your Home Gopher Server

Many Gopher users like to connect to a Gopher server when they start their session. WSGopher supports this via the Home Gopher Server dialog. You can enter the hostname and port of your local Gopher server. Note that there is a flag specifying whether this server is Gopher+ or not; when in doubt, leave it off, as it will hurt nothing. You might wish to contact your Gopher administrator to see if the server supports Gopher+, as it gives you some nice, new features.

The title field lets you control what the title for your initial Gopher window contains. It's not provided by the server, so we let you put anything you like.

Notice that there are places to enter two Gopher servers. This dates back from the early days of the University of Minnesota Gopher server; one machine became so busy that they "cloned" it, and modified their client to pick from two servers at random, to lighten the load. This works best of course if the machines are configured identically, or very similar. Contact your Gopher administrator to see if this applies to you.

### Which Home Gopher is right for you?

- If your campus or place of work has a Gopher server, that is the obvious choice.
- If there is a university or college in your area, contact them to see if they are on the network and if they have a Gopher server you could connect to.
- Otherwise, go to 'All the Gopher servers in the world' in the 'Gopher Services' category, and find a Gopher server somewhere near you.

---

### **See also**

[What is Gopher+?](#)



## **Directories on your system that WSGopher uses**

WSGopher sometimes needs to create a file on your computer's disk. This happens when you [download](#) a file, such as a weather map, word processing document, PostScript file, etc.

Note that unless you tell WSGopher to save one of these downloaded files, it will delete the file when you exit WSGopher.

WSGopher may occasionally make a temporary file.

You can tell WSGopher which directory to use for downloading files, and which directory to use for temporary files. They can be the same directory; WSGopher is very careful about what it deletes.

If you don't tell WSGopher which directories to use, it will use your systems "temp" directory, if the TMP environment variable is set; otherwise it will use the directory in which WSGopher is installed.

---

### ***See also***

[Deleting Downloaded Files](#)

## Temp directory

In the past, WSGopher created a temporary file for text documents; it no longer does so, but in the future it may create temporary files for other reasons.

The convention I have used for filenames is to start them with "goph" followed by digits. Please do not delete these files if WSGopher is running. If WSGopher crashes for some reason, these files will be left behind; feel free to clean them up if WSGopher is not running.

---

### **See also**

[Directories WSGopher uses](#)

## **Download directory**

This is the directory where WSGopher will usually put [downloaded](#) files.

The [User Options](#) dialog contains an option that will cause WSGopher to automatically put files in this directory without your prompting.

Otherwise, you will see the File Save dialog whenever you download a file; then you can pick another directory if you wish.

---

### ***See also***

[Directories WSGopher uses](#)

## Viewers

When you [fetch](#) information from the network, sooner or later you will want to see it. If the item is a weather image, then a graphic viewer is in order; if the file is a word processing document, then the appropriate word processor is the tool of choice.

Unlike some other popular personal computer systems, files in Windows do not contain information on the application that generated them. Instead, Windows "associates" an application with the file's extension. For example, some common associations are:

<b>Extensio n</b>	<b>Application</b>
<b>WRI</b>	Windows Write
<b>GIF</b>	Compuserve Graphics Image Format
<b>TXT</b>	Text, usually ASCII; any editor should do
<b>DOC</b>	Often used by Microsoft Word and other word processors
<b>PS</b>	PostScript

Experienced PC users can think of many more such associations.

When you [download](#) a file, WSGopher gives you the opportunity to view the file when it is completely downloaded. To figure out which viewer to use, WSGopher uses the file extension and the associations.

### Using the File Manager set up associations

The "preferred" way to set up these associations is to use the Windows File Manager. This is most convenient because you only need to configure once, and many other applications (including WSGopher) will take advantage of the information.

You can use these steps to set up an association in the Windows File Manager:

1. Start the File Manager if it is not already running.
2. In the File menu select Associate.
3. Type in the extension you wish to associate a view with. If you have already selected a file, for instance a file with extension "GIF", this will be filled in for you.
4. Click the Browse button to search for a program to view the file with. This assumes you already have access to such a program, either on your hard disk or network disk.
5. Click the **OK** button. You are done.

### Setting up associations in WSGopher

WSGopher checks its own configuration of associations before checking the Windows File Manager. The [Viewers](#) dialog is used to add and modify these associations.

---

### **See also**

[Editing extended views](#)

## Terminal emulation

Gopher supports a **login** type, giving you access to another way of getting information on the Internet. The Gopher item includes the host to log in to, an optional port, and optional information you need to log in to this host. This information might include a **user ID** and **password**.

Typically you will see **public access** accounts available through Gopher. Sometimes you will see a **commercial** service; you must contact the service provider to get access to that information.

WSGopher supports terminal login sessions by running a WinSock compatible terminal emulation program. Prior to running this program, WSGopher puts up a **telnet information** window containing any optional information, or hints, that the Gopher item might include.

The telnet information window also includes a **Start** button. Click this button to start the terminal emulator. In fact, each time you click this button, WSGopher will run the emulator program.

---

### **See also**

[Setting the path for your terminal emulator program\(s\)](#)  
[Terminal emulation and extended views](#)

## Telnet/3270 Paths

In order to run your emulator programs, WSGopher needs to know where they are. You use the Telnet/3270 paths dialog to set this information.

### What are telnet and 3270?

You may be wondering what **telnet** and **3270** are, or why WSGopher asks you to configure both of them. *Telnet* is the standard Internet application protocol for remote login; it was originally designed for line or character oriented terminals. International Business Machines offers a line of data entry terminals commonly called the 3270 family. While they are neither line nor character oriented, they have been available for years and are very popular.

Most importantly, both telnet and 3270 are Gopher item types.

### How to set the telnet and 3270 paths

Note that both telnet and 3270 have a **■** button to assist the user in finding and entering the correct path. Use the browser, then click on its **OK** button. The path for the program you selected now appears in the text field next to the browser button.

### Command line

At this point you need to refer to your emulation program's documentation. Find out what it needs for a command line. Ideally, you want to be able to pass both **host** and **port** to the emulation program.

If the program supports the "traditional" format of

program-name host port

then you do not need to do anything else. Otherwise, you will need to [edit the command line](#).

---

### **See also**

[Terminal emulation](#)

[Terminal emulation and extended views](#)

## **Browser** ■

The Browser is a feature in WSGopher that allows you to quickly find a program. It uses the Windows File dialog box to locate an executable file, or an **"\*.exe"** file.

When you click the **OK** button, the Browser replaces the contents of the edit field associated with the browser button, with the file path you selected.

If you click the **Cancel** button, the Browser does not change the edit field.

---

### ***See also***

[Editing extended views](#)

[Telnet/3270 paths](#)

[Viewers](#)

## Editing the terminal emulator command line

Once you have determined what command line your terminal emulator program requires, you are ready to set up WSGopher to use the correct command line.

### A simple example

One popular telnet client takes a command line of this form:

```
<telnet> host:port
```

where '<telnet>' is the name of the program. Note that a colon comes between the host and port with an intervening space.

For example, let's say the path for <telnet> is C:\NET\TELNET\TELNET.EXE. To set up this program in WSGopher, you would do the following:

#### **Step:**

Use the **■** to get the path for the <telnet> program; you could type it in if you wish.

Click the **Host** button.

Enter a colon immediately after the host parameter.

Click the **Port** button.

Click inside the edit field and remove the space after the colon.

#### **Contents of edit field:**

```
C:\NET\TELNET\TELNET.EXE
```

```
C:\NET\TELNET\TELNET.EXE %host%
```

```
C:\NET\TELNET\TELNET.EXE %host%:
```

```
C:\NET\TELNET\TELNET.EXE %host%: %port%
```

```
C:\NET\TELNET\TELNET.EXE %host%:%port%
```

You are now finished. Click the **OK** button if you are done entering path information.

### A more involved example

Let's say we have purchased the upgraded telnet program. It needs more command line arguments than before. For the sake of discussion, we'll use the following command line:

```
C:\NET\TELNET\TELNET.EXE -emulate vt100 <host> -port <port>
```

Being good Internet explorers, we are willing to type things we don't fully understand! Without echoing the intermediate steps like we did above, let's go over how we do this:

1. Use the **Browse** button to select the correct path.
2. Click in the edit field and type "-emulate vt100". Note the space before the hyphen.
3. Click the **Host** button.
4. Click in the edit field and type " -port". Again, note the space before the hyphen.
5. Click the **Port** button. You are now finished.

By using the **Host** and **Port** buttons, you will be more confident that you are creating a command line that WSGopher will later use the way you want it to.

### Extended views

You can edit the paths for the extended views with the following steps:

1. Select an extended view from the droplist
2. Use the browser, host and port buttons as shown above



---

**See also**

[Terminal emulation and extended views](#)

## Terminal emulation and extended views

Gopher offers [extended views](#), containing much additional information, on the basic Gopher item types. The view corresponding to 'telnet' is 'terminal/telnet' and the view corresponding to '3270' is 'terminal/3270'. WSGopher comes configured with these views.

In the future, more extended views for login sessions may be defined. WSGopher currently looks through its configuration of extended views and adds each view starting with 'terminal/' or 'telnet/' to the extended view droplist.

---

### ***See also***

[Terminal emulation](#)

[Telnet/3270 paths](#)

[Editing the terminal emulator command line](#)

## Fonts

WSGopher gives you the ability to change the font, and the font size, in many of its windows. You can also change the font you use when printing from WSGopher.

WSGopher will remember these settings for future sessions.

### To change a font

1. Select **Fonts** from the **Configure** menu
2. From the menu, choose the item you wish to change the font for
3. The Windows Font dialog appears. Choose a named font from the font list. Try selecting different sizes and attributes. An example of the current font appears in the Font dialog. Click the **OK** button when you are satisfied with the font you have selected, or **Cancel** to not change the font.

For most items, WSGopher will update all windows of that type with the new font. This means that if you have three text windows visible, and if you change the Text window font, that the text windows will now show the new font.

When WSGopher changes the font for a window, it does not change the size of the window. However, scroll bars may appear or disappear as appropriate.

### Hint

A proportional font like Times Roman or Ariel will probably work well with most Gopher items. For tabular information (that is, tables or data where tabs are important), you may have better results with a fixed font such as `Courier` or `Courier New`.

---

### **See also**

[Directory font](#)

[Text font](#)

[Phone book font](#)

[Ask form font](#)

[Printer font](#)

[Use Printer font](#)

## Directory window font

To change the Directory font, select **Directory window** from the **Configure/Fonts** menu.

### Hint

The bitmaps in a directory do not shrink or grow; so, even if you use a very small font, you will be limited in the number of lines you can see in a directory window. This probably matters most when you are using a low resolution monitor.

---

### **See also**

[Fonts](#)

## **Text window font**

To change the Text font, select **Text window** from the **Configure/Fonts** menu.

### **Hint**

You probably have the most flexibility with fonts in the Text window. You might take note of the 'Hint' in the Fonts topic regarding fixed and proportional fonts.

---

### ***See also***

[Fonts](#)

## Phone book font

To change the Phone book font, select **Phone window** from the **Configure/Fonts** menu.

### Hint

Since the results list in the Phone book is tabular, you might have best results with a fixed font. See the 'Hint' in the Fonts topic for more information.

---

### **See also**

[Fonts](#)

## **Ask form font**

To change the Ask form font, select **Ask form** from the **Configure/Fonts** menu.

### **Hint**

The Ask form handles fixed and proportional fonts equally well.

---

### ***See also***

[Fonts](#)

## Printer font

To change the Printer font, select **Printer font** from the **Configure/Fonts** menu.

You will notice that the Font dialog contains many more options for Printer fonts than for WSGopher windows.

The topic [Printing in WSGopher](#) has more information on the Printer font and when it is used.

---

### **See also**

[Use Printer font](#)  
[Fonts](#)



## Use Printer font

To change the "Use Printer font" setting, select **Use Printer font** from the **Configure/Fonts** menu.

The topic [Printing in WSGopher](#) has more information on how this setting is used.

---

### **See also**

[Printer font](#)

[Fonts](#)

## Editing extended views

The Extended Views Editor allows you to add to and modify WSGopher's configuration of extended views.

There are several ways to get to the Extended Views Editor:

- Select **Edit Views** from the **Configure/Extended Views** menu
- If you select an extended view that WSGopher does not have in its configuration, WSGopher will call the Editor, filling in values the best it can. In this case, you will want to *edit* as appropriate, *add* the view, then click the **OK** button.

### Adding a view

Chances are you will not be adding views very often. However, if you do, here are the steps you need to consider:

1. Enter the view *name*. Gopher extended views contain upper and lower case. However, WSGopher does not consider case to be important. The rationale is that "image/JPEG" and "image/jpeg" are really the same.
2. Select the Gopher *type* from the droplist of item types. If the view is handled internally (for example, it's a Gopher menu type), then you are finished. For most types not handled within WSGopher, **Image** is a good default.
3. If the view is handled externally, that is, a file you download and use another program to view, then you need to decide on a filename *extension*. Optionally you can select a *viewer*. If you set one here, WSGopher will use this viewer, or it will use the viewers configured in the Viewers dialog, or the Windows File Manager.
4. Click the **Add** button, and you are done.

### Modifying a view

To modify a view, first select the view from the list of views, then change anything you need to change. To commit your changes you can either select any view in the list, or click the **OK** button if you are finished with the Extended Views Editor.

### View ranking

When you select an item in the view list, the *ranking* for that view appears in a pushbutton. To change the ranking of this and other views, click the button; this will bring up the Ranking dialog. When you are finished with the Ranking dialog, you will be back in the Extended Views Editor.

---

### **See also**

[Extended views](#)

[Ranking extended views](#)

## Ranking extended views

### Why you would rank views

The Extended views topic mentions that WSGopher will 'figure out' for you which view to use when fetching an item. How does it do this? Let's answer by way of example.

A typical Gopher+ directory may offer the following views:

```
application/gopher+-menu
application/gopher-menu
text/html
```

Your preference might be to use 'application/gopher+-menu', but if that's not available, you prefer 'text/html' to 'application/gopher-menu'. So, the question is: do you want to *always* make this choice, or would you like to have WSGopher do it for you?

If you prefer the latter, then you might want a setup like the following:

```
Choose first      application/gopher+-menu
Choose second     text/html
Choose third      application/gopher-menu
```


With the Ranking dialog you can do this. The highest entry in the **Ranked views** list (the left column in the dialog) will be chosen first; then the next entry, and so on.


### How WSGopher chooses a view


When WSGopher looks through a set of views to determine which one the user prefers, it uses the 'ranking' as shown in the Ranking dialog. The view at the top of the left column has the highest 'ranking', and the view just below it has the next highest ranking. The view at the bottom of the left column has the lowest non-zero rank. All the views in the right column have zero rank.

So, the view the user would pick is the one with the highest ranking. In a way, the rank is like a weight; the view with the greatest weight is chosen.

### How to rank views

To assign a ranking to a view, select it in the right column, and use the  button to move it to the left. If you first select a view on the left, the newly ranked view will be placed just under it. Otherwise, views are placed at the top.

To increase a view's ranking, select it in the left column and use the  button to move it up. Use this button as many times as needed.

To decrease a view's ranking, select it in the left column and use the  button to move it down. Use this button as many times as needed.

To unrank a view, select it in the left column and use the  button.

---

**See also**

[Extended views](#)

## Language used in extended views

Each extended view has three components: a *name*, an optional *language*, and an optional *size*. The language information is constructed from standard codes; unfortunately it is not reasy to read. So, WSGopher converts the codes into a more usable form. For instance, instead of seeing "EN\_US you will see "English (US)".

To do this, it uses a table of language codes and visible names. The **Languages** dialog in the **Configure/Extended views** menu allows you to add to and edit this table. In our example, EN\_US would be the language code and English (US) would be the visible name.

To add a language to the table, enter the language code as you see it in the list of extended views mentioned above; then add the visible name. Then click the **Add** button.

If you do not know what language it is, you might check the "Top Level Domains" in the Frequently Asked Questions (check the bookmark category 'Internet: information resources'). Look at the hostname for the item you are fetching. The characters following the last period in the name refer to the domain

At this writing, you will need the proper version of Windows in order to see the document displayed correctly.

---

### **See also**

[Extended views](#)

## User Options

The User Options dialog lets you control how WSGopher 'behaves' in several ways.

- If you want WSGopher to pick the [highest ranked view](#) on its own, set the option "Automatically pick the highest ranked view" to 'On'. Otherwise WSGopher will always present the views to you and let you decide.
- If your WinSock network software cannot handle a period ('.') at the end of a hostname, you will get hostname lookup errors. WSGopher can strip the period from the end of the hostname. Set the option "Remove trailing period from hostname" if you need this done.
- WSGopher tries very hard to make a useful DOS filename when you download Gopher items to disk. Then it prompts you with the Windows File dialog, showing you the filename it came up with. If you think WSGopher does a good enough job on its own, without your assistance, set the option "Use the generated filename, check for uniqueness".
- When WSGopher downloads a file, it gives you the opportunity to 'view' the file when the download is complete. If you want WSGopher to automatically view the file without your intervention, set "Always view the file when download is complete". One reason you may **not** want to do this is if you download executable files.
- When you [fetch bookmarks](#) from the [Bookmark Editor](#), you can direct the Bookmark Editor to do one of the following:
  1. **Stay active**; do this if you plan to fetch more than one bookmark at a time.
  2. **Close**; do this if you wish the Bookmark Editor to be out of the way.
  3. **Minimize**; do this if wish to keep the Bookmark Editor around for more work, but not just now.
- Some people like the the features of WSGopher but only want to look at one window at a time. Turn this option on if that is your taste. MDI is Microsoft's term for Multiple Document Interface; it gives you all the document windows inside the WSGopher application window. Don't worry; the windows are still there, but they are all maximized, meaning they fill the available room inside the application window.

---

### **See also**

[Extended views](#)

## Window Cascade

Use this command to arrange multiple opened windows in an overlapped fashion.

---

### ***See also***

[Controlling your Windows environment](#)

## Window Tile

Use this command to arrange multiple opened windows in a non-overlapped fashion.

---

### ***See also***

[Controlling your Windows environment](#)



## Arrange Window Icons

Use this command to arrange the icons for minimized windows at the bottom of the main window. If there is an open document window at the bottom of the main window, then some or all of the icons may not be visible because they will be underneath this document window.

---

### **See also**

[Controlling your Windows environment](#)

## **Toolbar**

Use this command to display and hide the Toolbar, which includes buttons for some of the most common commands in WSGopher, such as Fetch Item. A check mark appears next to the menu item when the Toolbar is displayed.

---

### ***See also***

[Overview of Toolbar](#)

[Controlling your Windows environment](#)

## Overview of Toolbar













The Toolbar is displayed across the top of the application window, below the menu bar. The Toolbar provides quick mouse access to many tools used in WSGopher.

To hide or display the Toolbar, choose Toolbar from the Window menu (ALT, W, B).

Click one of the icons below to get more specific help.

### **Click To**

-  Bring up the Fetch Bookmark menu
  - Add the bookmark defining the current item to your collection of bookmarks; if the current window is a directory, then the current item is the *selected* item
  - Add the bookmark defining the current directory window to your collection of bookmarks
-  Bring up the Bookmark Editor; you may have to choose a category first
-  Visit your Home Gopher Server
- Go to the top of this Gopher's outline
-  Backtrack one level in this Gopher's outline
- Bring up the window which shows information on a Gopher item
- Fetch a Gopher item
-  Cancel the current transaction
-  Cancel all transactions
- Find text in a Gopher window
- Search again, using the text you searched for last
-  Save the current item, or the current selection, to disk
-  Copy the current item, or the current selection, to the Windows clipboard
- Print the current item, or the current selection
-  Get WSGopher's version number and copyright information; also the email address to send correspondence to
-  The context help key, one of the most powerful means of getting help in WSGopher

---

### **See also**

[Viewing the Toolbar](#)

## Status Bar

Use this command to display and hide the Status Bar, which describes the action to be executed by the selected menu item or depressed Toolbar button, and keyboard latch state. A check mark appears next to the menu item when the Status Bar is displayed.

---

### ***See also***

[Overview of Status Bar](#)

## Overview of Status Bar



The Status Bar is displayed at the bottom of the WSGopher window. To display or hide the Status Bar, use the Status Bar command in the Window menu.

The left area of the Status Bar describes actions of menu items as you use the arrow keys to navigate through menus. This area similarly shows messages that describe the actions of Toolbar buttons as you depress them, before releasing them. If after viewing the description of the Toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the Toolbar button.

The right areas of the Status Bar indicate which of the following keys are latched down:

<b>Indicat or</b>	<b>Description</b>
<b>CAP</b>	The Caps Lock key is latched down.
<b>NUM</b>	The Num Lock key is latched down.
<b>SCRL</b>	The Scroll Lock key is latched down.

---

### **See also**

[Viewing the Status Bar](#)

## **1, 2, 3 ... numbered windows**

WSGopher displays a list of currently open document windows at the bottom of the Window menu. A check mark appears in front of the document name of the active window. Choose a document from this list to make its window active.

---

### ***See also***

[WSGopher Main Window](#)

[Controlling your Windows environment](#)

## Getting help

One of the more important aspects of using an application is understanding how to get help. In WSGopher this is fairly easy; you can use the F1 function key to get help for the current window, menu item or dialog, or use SHIFT-F1 and then select something you want help on. This is called *context* help.

To better understand how to use the Help application itself, try **Using Help**.

You can get to the main WSGopher Help like this:

- If you are using WSGopher, go to the Help menu and select Index
- If you are using Help, select the Contents button at the top left, just under the menu bar.

---

### ***See also***

[Help Index](#)

[Using Help](#)

[Context Help](#)

## Help Index

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using WSGopher and various types of reference information.

Once you open Help, you can click the **Contents** button whenever you want to return to the opening screen.

---

### **See also**

[Getting Help](#)



## Using Help

Use this command for instructions about using Help.

---

### ***See also***

[Getting Help](#)

## Context Help



Use the Context Help command to obtain help on some portion of WSGopher. When you choose the Toolbar's Context Help button, the mouse pointer will change to an arrow and question mark. Then click somewhere in the WSGopher window, such as another Toolbar button, a document window, or a menu item. The Help topic will be shown for the item you clicked.

### Shortcut

Keys: SHIFT+F1

---

### **See also**

[Getting Help](#)

## Showing WinSock Info

Your WinSock network software returns a set of information to WSGopher when it starts up. This dialog displays the information.

To most users, the most useful piece of information is probably the **Description**. This shows you the version of the WinSock software you are using, and the manufacturer's name. Select this text and copy it to the clipboard if you need to report problems.

---

### **See also**

[Understanding error messages](#)

## **About WSGopher**

Use this command to display the copyright notice and version number of your copy of WSGopher.

You will also find an Internet email address. Feel free to send mail to this address with your comments, suggestions, and questions.

---

### ***See also***

[Copyright information](#)

## Controlling your Windows environment

As a user, you will feel more comfortable operating Windows applications like WSGopher when you feel more in control of your environment. This topic will point you to information and shortcuts that should prove useful.

For instance:

You should know how to use [scroll bars](#).

There are some general things about [Dialogs](#) you should know.

It helps to know how to [resize](#), [minimize](#), [maximize](#) and [move](#) windows.


Within WSGopher, you can easily move to the [next](#) or [previous](#) window.

You can [close](#) a window, and you can [restore](#) a window that you have minimized.

When you know how to get to the [Task Switcher](#), you will definitely save time.

### The System Menu

Windows makes available a menu of commands that affect your application window; this is

the System menu. You can get to this menu by clicking  in the top left corner of the WSGopher main window, or any other applications window.

### Individual windows in WSGopher

Many of the commands in the System menu are duplicated in a button at the top left corner of the individual windows in WSGopher. Many of the procedures for affecting the window are the same; for instance, moving a window by dragging the title bar with the mouse works the same for WSGopher and its individual windows.

---

### **See also**

[WSGopher main window](#)

## Scroll bars

Scroll bars are displayed at the right and bottom edges of the document window. The scroll boxes inside the scroll bars indicate your vertical and horizontal location in the document. You can use the mouse to scroll to other parts of the document.

---

### **See also**

[Controlling your Windows environment](#)

## Dialogs

Dialogs differ from other windows in WSGopher in several ways. If you take note of these, they could help your work with WSGopher go smoother and faster.

- Windows intends that you interact with the dialog, then put it away. This is the case for all but two dialogs in WSGopher, the [Bookmark Editor](#) and the [Information](#) window. You will notice that these windows have a minimize button
  - in the upper right corner.
- To make dialogs easier, or faster, to use, Windows gives you keyboard shortcuts:

<b>Key</b>	<b>Action</b>
<b>TAB</b>	Moves keyboard focus to the next field, and selects the text in an edit field
<b>SHIFT-TAB</b>	Moves keyboard focus to the previous field, and selects the text in an edit field
<b>ENTER</b>	The same as clicking the <b>OK</b> button, or the last button clicked in an editor dialog
<b>ESCAPE</b>	The same as clicking the <b>Cancel</b> button
<b>SPACE</b>	Toggles a radio button, or 'clicks' a push button
<b>DOWN</b>	If the field is a droplist or combo box, causes the list to drop down
<b>ARROW</b>	

---

### **See also**

[Controlling your Windows environment](#)

## Size command (system menu)

Use this command to display a four-headed arrow so you can size the active window with the arrow keys.



After the pointer changes to the four-headed arrow:

1. Press one of the DIRECTION keys (left, right, up, or down arrow key) to move the pointer to the border you want to move.
2. Press a DIRECTION key to move the border.
3. Press ENTER when the window is the size you want.

Note: This command is unavailable if you maximize the window.

### Shortcuts

Mouse: Drag the size bars at the corners or edges of the window.

---

### **See also**

[Controlling your Windows environment](#)



## **Move command (control menu)**

Use this command to display a four-headed arrow so you can move the active window or dialog box with the arrow keys.

■

**Note:** This command is unavailable if you maximize the window.

---

### ***See also***

[Controlling your Windows environment](#)

## **Minimize command (control menu)**

Use this command to reduce the WSGopher window to an icon. If you minimize an individual window within WSGopher, it is reduced to an icon within WSGopher.

### **Shortcuts**

Mouse: Click the minimize icon ■ on the title bar.

---


### ***See also***

[Controlling your Windows environment](#)

## Maximize command (control menu)

Use this command to enlarge the WSGopher window to fill the available space. If you maximize a window within WSGopher, it will fill the client area of WSGophers main window.

### Shortcuts

Mouse: Click the maximize icon  on the title bar; or double-click the title bar.

---

### ***See also***

[Controlling your Windows environment](#)

## **Next window**

Use this command to switch to the next open document window. WSGopher determines which window is next according to the order in which you opened the windows.

### **Shortcuts**

Keys: CTRL+F6

---

### ***See also***

[Controlling your Windows environment](#)

## Previous window

Use this command to switch to the previous open document window. WSGopher determines which window is previous according to the order in which you opened the windows.

### Shortcuts

Keys: SHIFT+CTRL+F6

---

### ***See also***

[Controlling your Windows environment](#)

## Close window (control menu)

Use this command to close the active window or dialog box.

Double-clicking a Control-menu box is the same as choosing the Close command.

■

Note: If you have multiple windows open for a single document, the Close command on the document Control menu closes only one window at a time. You can close all windows at once with the Close command on the File menu.

### Shortcuts

Keys: **CTRL+F4** closes a document window

**ALT+F4** exits the WSGopher application

**ESC** also closes a document window or dialog box

---

### **See also**

[Controlling your Windows environment](#)

## **Restore window (control menu)**

Use this command to return the active window to its size and position before you chose the Maximize or Minimize command.

---

### ***See also***

[Controlling your Windows environment](#)

## Switch to (Application Control Menu)

Use this command to display a list of all open applications. Use this "Task List" to switch to or close an application on the list.

### Shortcuts

Keys: CTRL+ESC

### Dialog Box Options

When you choose the Switch To command, you will be presented with a dialog box with the following options:

<b>Task List</b>	<b>Select the application you want to switch to or close.</b>
<b>Switch To</b>	Makes the selected application active.
<b>End Task</b>	Closes the selected application.
<b>Cancel</b>	Closes the Task List box.
<b>Cascade</b>	Arranges open applications so they overlap and you can see each title bar. This option does not affect applications reduced to icons.
<b>Tile</b>	Arranges open applications into windows that do not overlap. This option does not affect applications reduced to icons.
<b>Arrange Icons</b>	Arranges the icons of all minimized applications across the bottom of the screen.

---

### See also

[Controlling your Windows environment](#)



## Main Window

### **Need help getting started?**

If your WSGopher window is empty, and you pressed **F1** because you needed help, then this is what you do:

Learn how to [set a Home Gopher Server](#)  
[Visit your Home Gopher Server](#)  
[Fetch interesting items](#) with the Fetch Bookmark menu

### **Title Bar**

At the top of the window you will see the [title bar](#). It contains the name and version number of this application; currently that is "WSGopher 1.1". When you have a Gopher document window open, then the title of that window appears in the title bar as well.

### **Menu Bar**

Below the title bar is the menu bar. It contains:

**File Edit Bookmark Configure Window Help**

To select an item in a menu, click on the menu with the left button. For instance, to get the **File** menu, click on the word "File". You can also use the ALT key and the underlined letter of the menu; in other words, press and hold the ALT key and the letter '**f**' to get the **File** menu.

See the topic [Getting Help](#) below for a shortcut on finding out what the items in menus do.

### **Toolbar**

Below the menu bar is the [Toolbar](#). This contains a set of buttons with graphics; each button is identical to one item in one of the menus. The reason for a toolbar is to provide a shortcut to commonly used functions.

### **Client area**

Between the Toolbar and the Status Bar is the client area. WSGopher puts individual document windows in this area. If windows are minimized, the icons fill in this area from the bottom left, working right and up. If a window is maximized, it fills this area.

### **Status Bar**

At the bottom of the WSGopher window is the [Status Bar](#). Usually it says "WSGopher is ready ... press F1 for help". That may be how you ended up in this help screen.

However, at other times it contains different text. Sometimes while WSGopher is going about its business it may display a different message here. It pays to keep an eye on the Status Bar.

---

**See also**  
[Getting Help](#)



## Title bar



The title bar is located along the top of a window. It contains the name of the application and document.

To move the window, drag the title bar. Note: You can also move dialog boxes by dragging their title bars.

A title bar may contain the following elements:

- Application Control-menu button
- Document Control-menu button
- Maximize button
- Minimize button
- Name of the application
- Name of the document
- Restore button

---


### **See also**

[WSGopher Main Window](#)

## Overview of Directory window

A Gopher directory contains one or more Gopher items. Specifically, you will see a [bitmap](#) like ■ ,

■ or

 on the far left side of the window, and next to it will be text. The bitmap represents the type of the Gopher item, and the text is the title of the item.

The directory appears in a scrolling list window. If a scroll bar appears to the right, you can scroll up and down to see more items. If a scroll bar appears on the bottom, you can scroll left and right to see the full text of the titles.

You can also resize the window; depending on the number of items and the length of the titles, the scroll bars may disappear or reappear.

### What can you do with a directory?

First, you need to [select](#) the item. Then you typically [fetch](#) items or [get information](#).

You can [copy the contents of a directory](#) to the clipboard; when you do, the titles are copied.

Similarly, you can [print](#) the contents of a directory; when you do, the titles are printed.

### Keyboard Shortcuts:

<b>UP</b>	Previous item
<b>DOWN</b>	Next item
<b>PAGE UP</b>	Up one screen
<b>PAGE DOWN</b>	Down one screen
<b>HOME</b>	First item
<b>END</b>	Last item
<b>ENTER</b>	Fetch item
<b>ESC</b>	Close window

---

### **See also**

[What is Gopher?](#)

[Introduction to WSGopher](#)

[Bookmarks](#)

## What the bitmaps mean

Below you will find the bitmaps, or icons, used in a Gopher directory, along with a brief description. In almost all cases you can click on the bitmap to get more help for that Gopher item.

### **Bitmap**   **Explanation**



This is a Gopher directory.



This is a Gopher text file.



This is a Gopher phone book interface; it is interactive.



This is a Macintosh "binhex" file; it probably won't do you much good unless you are using a Mac.



This is a DOS archive of some sort; it seems that "zip" files are pretty typical.



This is a Unix "uuencoded" file. I have yet to see an example of one in Gopher, although I've used them on Unix systems.



This is a Gopher index search interface. The text to the right of this icon represents the database you will be searching.



This is a "telnet" login session, or will be when you select it. You need to have a WinSock 'telnet' client installed on your computer.



This is a "3270" session, or will be when you select it. You need to have a 3270 emulator installed on your computer.



This is a binary file; the type is not known.



This is an image; GIF and JPG images seem to be the most common. You will need [viewers](#) to see these images.



This is an Adobe Acrobat file; you will need to get the reader application from Adobe. Gopher supports these files as an [alternative hypertext document](#).



This is a movie file. MPEG seems to be pretty common, but you might run into QuickTime format; you will need a viewer to see the movie.



This is a sound file. There are a variety of formats, and many viewers to choose from.



This is a MIME file; MIME is used in email, but I suppose a viewer would tell you what was included in this "message".



HTML, or Hypertext Markup Language, is used in the World Wide Web. Gopher servers can download HTML descriptions of directories; in the future, WSGopher will probably be able to display HTML. For now you'll need a Web client such as Cello or Mosaic.



This is the Panda "inline" type; the text associated with it is a comment, and there is nothing to download.



This is an Ask form, the Gopher+ interactive form.



You will see this when the server returns an error; most typically when a Veronica server is too busy to handle your request, or for a Gopher directory that is under construction.



WSGopher did not recognize this Gopher type; if you think this is in error, please send a [copy of the bookmark](#) via email to [gopher@tis.inel.gov](mailto:gopher@tis.inel.gov)

---

### **See also**

[Overview of the Directory window](#)



## Selecting an item in a Directory window

You select an item in a directory window by clicking on it with the left mouse button.

Once you have clicked on an item, you can use the **Up** and **Down** arrow keys to select items above or below it, or continue clicking to select.

If you double click on an item, this is the same as selecting it then [fetching](#) it.

---

### ***See also***

[Overview of the Directory window](#)

## Fetching an item in a Directory window

Once you have selected an item in a directory, you can fetch it with the ENTER key, or the ■ Toolbar button, or you can use the **File** menu and select **Fetch Item**. This means that WSGopher makes a network connection to some host computer on the network, then sends it a request, then gets the results and displays them for you.

While this is going on, WSGopher also creates a window to put the item in.

**New:** starting with version 1.1, WSGopher keeps track of the currently open windows. If you fetch an item from a directory, and you already have a window open for that item, WSGopher now brings that window to the front rather than refetch it. If the item is Gopher+, then WSGopher also considers the view, so you could have more than one window for an item so long as they have different views.

---

### **See also**

[Overview of the Directory window](#)



## Getting information on an item in a Directory window

After selecting an item, you may get more information on it by clicking the ■ button in the Toolbar. Starting with WSGopher 1.1, you need to select the item in the directory *again*, after you bring up the information window.

While the Information window is visible, then each time you select an item in any directory, it's information will appear in the [Information](#) window.

---

### **See also**

[Overview of the Directory window](#)

## Overview of Text window

A Gopher text document contains plain, ASCII text. There are several common uses for text documents:

- README files, Indexes to directory contents, general information
- Text returned from searches

Text documents have both horizontal and vertical scroll bars which appear in case they are needed. You can drag the button in the scroll bar in the usual way. Text document scroll bars also support the following keyboard actions:

<b>Key</b>	<b>Action</b>
<b>HOME</b>	Goes to top of document
<b>END</b>	Goes to end of document
<b>PAGE UP</b>	Goes up one screen
<b>PAGE DOWN</b>	Goes down one screen
<b>UP ARROW</b>	Goes up one line
<b>DOWN ARROW</b>	Goes down one line
<b>LEFT ARROW</b>	Scrolls left one column
<b>RIGHT ARROW</b>	Scrolls right one column
<b>ESC</b>	Close window

---

### **See also**

[Selecting text in a Text window](#)

## Selecting text in a Text window

1. Using the scrollbar or the positioning keys, position the text in the window so that you can see where you want begin selecting.
2. Move the cursor to your starting point.
3. Hold down the left mouse button and begin to drag the cursor. The selected text is highlighted.
4. You may go out of the window, so long as the left mouse button stays down. If you go above or below the window, the text will scroll up or down until it reaches the end/beginning of the document.
5. Release the left mouse button to mark the end of the selection.

Note that while you are selecting, the starting point and current point are displayed in the text window's Status Bar. When you finish, the starting and ending point are displayed, in terms of line and column.

### To cancel selecting text

To cancel selecting text, click the right mouse button.

### To unselect text

To unselect the selected text, you can do one of the following:

- Click the right button, which makes the window 'forget' about the text selection
- Click the left button, which displays the current line and column
- Double click the left button, which selects a word
- Start a new selection

---

### **See also**

[Overview of Text window](#)

## Overview of Download window

Images, DOS archives, Unix uuencoded files, Mac BinHex ('hqx') files and binary files all have one thing in common in WSGopher: they are downloaded to your computer, where WSGopher or you can run an appropriate program to view or edit the file. Or, perhaps you just wish to store it for later use.

### Steps for downloading a file

- Select the file from a Gopher directory, or the Bookmark Editor, or a bookmark of your choosing. WSGopher will construct a legal DOS filename from the title of the item you fetched. Here's how that works:
  1. WSGopher looks for a file extension in the name, such as '.GIF', '.HLP', etc. Case is not important. If there is no extension, then Gopher will guess using the item type.
  2. WSGopher then starts at the beginning of the title and gets the first eight legal DOS filename characters, until it encounters a period.
  3. WSGopher makes a set of filename "filters" for the file dialog box entitled 'Select File for Gopher Download'. If the title contains '.GIF' then the filter will show GIF files; or, if the item type is 'Image', then the filter will contain entries for GIF, JPG, MPG, etc.
  4. WSGopher then displays the file dialog box. The default directory is the Gopher Download directory, which can be set in the Configure menu by selecting 'Local Directories'.
- Use whatever filename or directory you wish. If you enter an invalid name, the file dialog will tell you. If you press the **OK** button, Gopher will download the file. If you press the **Cancel** button, Gopher will forget about downloading this file.

### Working with the Download Box

A dialog box appears containing the name of the file you selected, and several toggle buttons. You'll notice that the Download Box shows how many bytes have been transferred and how fast the download is progressing. When the transfer is complete, the Download Box will add ' ... done' to the display.

If you wish to view the file when the download is complete, click on the 'View file when complete' toggle.

WSGopher will delete files you download, unless you tell it not to. If you wish to save this file for later use, then click on the 'Save file for later use' toggle.

---

### **See also**

[Choosing a filename](#)

[Viewing the file](#)

[Viewers](#)

[Saving the file for later use](#)

## Choosing a filename

### How WSGopher creates a filename

WSGopher attempts to build a filename from the Gopher item's title, the text you see in the Gopher directory. Here are the steps it follows:

- If the title has a period ('.') then WSGopher uses text to the right as an extension, and text to the left as the filename
- Otherwise if the title has forward slashes ('/') or backslashes ('\') WSGopher uses the part of the text after the last of these as the filename
- Otherwise WSGopher uses the first eight DOS filename characters, from the title, as the filename.

If WSGopher can't determine a file extension from the steps above, then it uses the following rules:

- If the item is fetched using an [extended view](#), and the view is configured with a file extension, the WSGopher uses this
- Otherwise WSGopher uses one or more extensions based on the item type.

### Using your own filename

WSGopher uses a standard Windows File dialog box, so you can use your own filename, and select your own directory. This is helpful particularly if you disagree with the extension WSGopher used; just type in your own.

### If the file already exists ...

WSGopher puts up a dialog box advising you if the file already exists. If you wish to overwrite it, click the **Yes** button; otherwise click **No** and you will have another opportunity to change the filename.

---

### **See also**

[Editing extended views](#)

[Overview of the Download Window](#)

## Viewing the file

If the "View file when download is complete" toggle, in the Download box, is on when the file transfer finishes, then WSGopher will attempt to view the file.

### Finding a viewer

These steps explain how WSGopher finds the viewer program:

- If the file was fetched using an [extended view](#), WSGopher will use the viewer program configured for that view, if any.
- Otherwise WSGopher checks its own [viewer configuration](#) using the file's extension
- If WSGopher doesn't find a match there, then it uses the File Manager associations

### Running the viewer

If WSGopher has a problem running the viewer program, it pops up a dialog box containing the path of the viewer and the name of the file you just downloaded. This is a good opportunity to check your configuration and correct the path for the viewer.

---

### **See also**

[Editing extended views](#)

[Viewers](#)

[Overview of the Download Window](#)

## **Saving the file for later use**

If the "Save file for later use" toggle is set, then WSGopher will not delete the file you downloaded when it exits.

The **Delete Files** selection in the **File** menu gives you access to the files you have downloaded, in case you change your mind.

---

### ***See also***

[Deleting downloaded files](#)

[Overview of the Download Window](#)

## Overview of Phone Book window

Gopher provides an interface to a service called *CSO*, which existed before Gopher was created. *CSO* is commonly used to provide *white pages* lookup of names, phone numbers, email address, etc. Think of 'white pages' as looking up something by name, and 'yellow pages' as looking up something by service category (not to mention a term copyrighted by the phone company).

The Phone book window contains an area to enter a search string, a droplist labeled **Fields**, and a scrolling list where results will be displayed. As with [Search](#) windows, the easiest query is the simplest. [*Important note*: your results may vary depending on how the server is set up!]

The Phone book is interactive; this means you can pose many queries. The results for each query appear in the scrolling list.

The Phone book is [resizable](#), and you can [change the font](#) if you wish.

---

### **See also**

[Entering a Phone Book query](#)

[Using the results of the Phone Book query](#)



## Entering a Phone Book query

### Getting started

First try entering the last name of the person you are looking for (or your own if you are just browsing). Depending on the data this CSO server has stored in it, you may get quite a few responses. Now you can use the scroll bar to look at the information returned to you.

### Narrow your search

Let's say that instead you get a message similar to the following:

```
Too many entries to print.  
Bye!
```

Or, perhaps you received a long list and wish to narrow your search a bit.

Let's take a quick look at the **Fields** mentioned above. For the sake of example, let's say you entered **smith** as a search string, and all you remember about the person is that their name started with "B". Now, go to the Fields droplist. Click the mouse on the down arrow, and you'll see a scrolling list "drop down" (hence the name). Click on the first item in the list, which should be "**name**". In the search field we now have

```
smith name=
```

Type in **b\*** after the equal sign, so that it looks like this:

```
smith name=b*
```

and click the **Search** button. You may get a smaller list, or you may get

```
No matches to your query.  
Bye!
```

If you get this, you might try experimenting until you find at least one match.

Let's say that one of the matches look similar to the following:

```
name: Smith, Greg  
title: Engineer
```

It occurs to you that you may know someone else named Smith who is an engineer. Erase **name=b\*** in your search query. Go to the droplist again and select the entry for "title", and after the equal sign type 'engineer'. Your query now looks like:

```
smith title=engineer
```

Click the **Search** button again and you'll see how many Smiths have 'Engineer' in their title.

You can search without using the name at all. Consider that Greg Smith is in the Safety department, that is

```
department: Safety
```

was returned for him. You could easily list the entire Safety department by changing your query to

```
department=safety
```

Then you could find out who the manager was like so:

```
department=safety title=manager
```

This might also list the Assistant Manager, if there was one.

**Note:** for most of the CSO servers I've visited, an entry such as 'smith' without a field and equal sign means 'name=smith'.

**Note:** the way you enter queries containing spaces is to repeat the field name. We could search for Greg Smith like so:

```
name=smith name=greg
```

**Note:** the CSO server you connect to may not use name as the default search field; unfortunately, there is no way to tell what the servers default search field, or if it even has one. So, our examples above starting with smith may not work.

---

***See also***

[Phone book](#)

## Using the results of the Phone Book query

The Phone book places results in the scrolling list. You can select multiple lines with this list, just like you can with the [Bookmark Editor](#).

You can [copy](#) Phone book results to the Windows clipboard; if you have selected lines, only those lines are copied.

You can [print](#) Phone book results; if you have selected lines, only those lines are printed.

---

### **See also**

[Phone book](#)

## Overview of Search window

You can search databases on other computers with Gopher. Often the remote computer has a *WAIS* database, where *WAIS* stands for *Wide Area Information Service*. Just the same, all you really know about the remote database is that you can do keyword searches on it, and the result will be one or more documents that contain your search text (hopefully!).

### What happens when you search

Each time you enter a query and click the **Search** button, WSGopher creates a directory window, fetches the results and puts them in the directory. The name of the directory is the name of the search item, with your search query added at the end; a colon separates them.

It often takes awhile for the search to complete, so be patient! The database server does the query when you ask; it's not the same as fetching something that already exists on a Gopher server.

---

### **See also**

[Entering a Search query](#)

[Using the results of a Search query](#)

## Entering a Search query

Here are some common tools which will help you with most searches. Your results may vary; for more information, contact the administrator of this Gopher server. You can usually find out who that is, if the directory is [Gopher+](#), by using the [Information](#) window on the [main Gopher window](#) for that server.

### Single word

The simplest search is also the easiest. To look for a single word, just type that word. For instance, if you are looking for Idaho, then just type

idaho

and click the Search button. I did this just now in Veronica and got 400 entries. There are probably more (the Veronica documentation tells you how to increase the number of return documents).

### Words found together

If you are interested in Idaho forests, you would enter

idaho AND forest

I did this just now in Veronica and got 56 entries. Each one contains 'Idaho' and 'forest'. Similarly, you could enter

idaho OR forest

if you were interested in entries with 'Idaho' or 'forest', but the entries did not have to contain both.

### Exact text

To search for exact text, that is two or more words that must follow each other, enclose the text in double quotes like so:

"private forest"

Again, just now this resulted in 161 entries (I am not advocating 'private forest', by the way).

---

### **See also**

[Search](#)  
[Using the results of a Search query](#)

## Using the results of a Search query

The results of a Search query are placed in a directory window. The only useful thing you can do is to [fetch](#) items from the directory, or fetch the [top Gopher menu](#) for items in the directory.

Do **not** save a bookmark for the directory; it makes more sense to save the bookmark for the search window itself.

---

### **See also**

[Search](#)

[Entering a Search query](#)

## Telnet Information Window

When you fetch a telnet or 3270 emulation, WSGopher shows you the Telnet Information window. There are several reasons for this:

- If the Gopher administrator provided any hints, such as a login ID and password, WSGopher will show you the hints in this window.
- When you start the emulation by clicking the **Start** button, you can be assured that the emulator's window will appear *in front of* WSGopher.

When you start the emulator, WSGopher shows you a copy of the command line in the Status Bar for the Telnet Information window. This may help you debug your setup if you experience problems running the emulator.

---

### ***See also***

[Terminal emulation](#)

[Telnet/3270 path](#)






## **Print command**

Use this command to print a document. This command presents a [Print dialog box](#), where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.

### **Shortcuts**

Toolbar: 

Keys: CTRL+P

## Print dialog

The following options allow you to specify how the document should be printed:

<b>Printer</b>	This is the active printer and printer connection. Choose the Setup option to change the printer and printer connection.
<b>Setup</b>	Displays a <a href="#">Print Setup dialog box</a> , so you can select a printer and printer connection.
<b>Print Range</b>	Specify the pages you want to print: <b>All</b> Prints the entire document. <b>Selection</b> Prints the currently selected text. <b>Pages</b> Prints the range of pages you specify in the From and To boxes.
<b>Copies</b>	Specify the number of copies you want to print for the above page range.
<b>Collate Copies</b>	Prints copies in page number order, instead of separated multiple copies of each page
<b>Print Quality</b>	Select the quality of the printing. Generally, lower quality printing takes less time to produce.

## **Print Progress dialog**

The Printing dialog box is shown during the time that WSGopher is sending output to the printer. The page number indicates the progress of the printing.

To abort printing, choose **Cancel**.

## **Print Preview**

Use this command to display the active document as it would appear when printed. When you choose this command, the main window will be replaced with a print preview window in which one or two pages will be displayed in their printed format. The [print preview toolbar](#) offers you options to view either one or two pages at a time; move back and forth through the document; zoom in and out of pages; and initiate a print job.

## **Print Preview toolbar**

The print preview toolbar offers you the following options:

<b>Print</b>	Bring up the print dialog box, to start a print job.
<b>Next Page</b>	Preview the next printed page.
<b>Prev Page</b>	Preview the previous printed page.
<b>One Page / Two Page</b>	Preview one or two printed pages at a time.
<b>Zoom In</b>	Take a closer look at the printed page.
<b>Zoom Out</b>	Take a larger look at the printed page.
<b>Close</b>	Return from print preview to the editing window.

## **Print Setup**

Use this command to select a printer and a printer connection. This command presents a [Print Setup dialog box](#), where you specify the printer and its connection.

## Print Setup dialog

The following options allow you to select the destination printer and its connection:

<b>Printer</b>	Select the printer you want to use. Choose the Default Printer; or choose the Specific Printer option and select one of the current installed printers shown in the box. You install printers and configure ports using the Windows Control Panel.
<b>Orientation</b>	Choose Portrait or Landscape.
<b>Paper Size</b>	Select the size of paper that the document is to be printed on.
<b>Paper Source</b>	Some printers offer multiple trays for different paper sources. Specify the tray here.
<b>Options</b>	Displays a dialog box where you can make additional choices about printing, specific to the type of printer you have selected.
<b>Network...</b>	Choose this button to connect to a network location, assigning it a new drive letter.

## Page Setup

Page setup determines how the printed page will appear.

First, the margins determine the amount of white space that surrounds the printed material. This is a fractional value, so "0.5" is one half inch.

You can selectively turn headers and footers on or off. If the **Print the Header** toggle is turned on, indicated by an **X** in the box, then WSGopher puts the title of the document at the top of each page; a horizontal line appears under the title.

Similarly, if **Print the Footer** is on, then WSGopher puts the text "Page " followed by the page number at the bottom of each page. A horizontal line separates the document text from the page number.

---

### See also

[Printing in WSGopher](#)

[Print Setup](#)

[Print Preview](#)



## Understanding error messages

Errors happen from time to time, even to the best of us (or so I've heard). Having a basic understanding of what is happening may help you find the problem and come up with a solution.

### Network errors

The topic on [fetching Gopher items](#) describes in some detail how WSGopher uses the network. The **See also** section below also lists specific network error message topics.

### Couldn't run <application>

If WSGopher tries to run an application, such as a viewer or terminal emulator, and if Windows tells it that the application will not run for some reason, then WSGopher pops up an error window. The command line (which should include the path of the application) and the text that corresponds to the Windows error are in the error message window.

The most likely problems are that the path is incorrect, or that there is not enough memory to run the application. The former seems to happen much more often than the latter.

### File errors

File errors are going to be rare, because WSGopher does very little with files. Text documents are saved to disk, and download files are written to disk; you may occasionally experience an error if your disk fills up or encounters a bad spot. These errors can only be addressed on a case by case basis.

WSGopher has been tested with and without the DOS "Share" program.

### Reporting errors

If your network software **crashes** while running WSGopher, please report the problem to your network software vendor. Be sure to include WSGopher's version number, and tell them where they can get a copy if they don't already know.

If you **cannot view** something you downloaded, this is probably not a WSGopher problem; try getting some local help.

If you find a problem that you can **repeat**, then please include the following information in your email to [gopher@tis.inel.gov](mailto:gopher@tis.inel.gov):

- Describe the problem as specifically as you can.
- Usually there is a specific item that doesn't work as you expect. Please [copy the bookmark](#) for this item to the Windows clipboard, and then paste it into your email message.
- Using the [WinSock info](#) window, copy the *vendor version information* to the Windows clipboard, and paste this information into your email message.

---

**See also**  
[Can't talk to WinSock](#)



Out of Network Resources  
Hostname lookup failure  
Possible WinSock failure  
Can't connect  
Connect error to host  
Error sending request  
Gopher server error

## **Out of Network Resources**

### **What happened:**

**No one** who has ever gotten this message thinks they should have. Just the same, for whatever reason your network software has told WSGopher that it cannot create a new *socket*. A 'socket' is the 'pipe', so to speak, that WSGopher and the Gopher server use to send data back and forth.

### **Possible solutions:**

- If your network software is TSR based, that means if it loads into DOS memory before you start Windows, contact your vendor for an update, or work with your local guru on optimizing the DOS memory below 640K.
- Try quitting one or two large applications before fetching the next item in WSGopher.
- Contact your vendor for help.

---

### ***See also***

[Understanding error messages](#)

## Hostname lookup failure

### What happened:

WSGopher has asked your network software to look up the Internet address for a hostname, and your network software replied that it could not.

### Possible solutions:

- If you get this error *immediately*, and you notice that the hostnames always end with a period (('.')), then check your [User Options](#) window; WSGopher has an option to help with this.
- Use the [Information](#) window to check the hostname. Occasionally you will find a hostname with a leading space or other character. Use **Fetch Item As** in the **File** menu to get the item, paying attention to the Host field; then contact the Gopher administrator for this item, and report the problem.
- Check your network software to make sure you have the right Domain Name Server(s) (aka DNS) in your setup. Your network guru can help you.
- Ask your network guru for help concerning the hostname you are having problems with.

---

### **See also**

[Understanding error messages](#)

## **Possible WinSock failure**

### **What happened:**

With some older WinSock network software, sometimes the host information returned contains some illegal values. Rather than crash, WSGopher puts up this error message.

### **Solution:**

Contact your network software vendor for an update.

---

### ***See also***

[Understanding error messages](#)

## **Can't connect**

### **What happened:**

This is an unlikely situation, but WSGopher tried to connect to the Gopher server, and was not able to even make the request.

### **Possible solutions:**

Check the topic on [Network Resources](#).

---

### ***See also***

[Understanding error messages](#)

## Connect error to host

### What happened:

WSGopher requested your network software to connect to the Gopher server, and the software learned that it could not for some reason. It told WSGopher, and WSGopher is telling you.

### Possible solutions:

The most likely reasons are:

- The Gopher server, or the local network the server is on, is just too busy right now. You should try again later.
- The server is not running right now; that could either be the Gopher server software, or the host computer itself. Try again later.
- You are using the wrong port; this is very likely if you get an immediate response with the text "Connection refused." If you copied a bookmark and pasted it into WSGopher, make sure you copied the port. Otherwise, try contacting the Gopher administrator.

---

### **See also**

[Understanding error messages](#)

## **Error sending request**

### **What happened:**

WSGopher sends some text to the Gopher server, indicating what item you wish to fetch. For some reason this resulted in an error.

### **Possible solutions:**

The possible reasons for this error range from losing your network connection to having a Gopher server host stop running. It is far more likely that one of the other network errors would have happened, rather than this one.

Try to isolate the problem by fetching items from several servers. Chances are, if the problem is local, then you will not be able to fetch anything. If you only have problems with certain hosts, then you might report the problem to your local network guru.

---

### ***See also***

[Understanding error messages](#)

## Can't talk to WinSock

### What happened:

Windows Sockets, *aka* WinSock, is the network software on your computer that allows WSGopher to talk to the network. For some reason WSGopher is not able to communicate with WinSock at this time.

### Possible solutions:

- The file WINSOCK.DLL needs to be in a directory on your DOS PATH. Check your installation to make sure the networking software is properly installed. You might get assistance from your local PC guru.
- Possibly, your local network is down, or the network device in your computer is not working. Get assistance from your local network administrator.

---

### ***See also***

[Understanding error messages](#)



## Gopher server error

### What happened:

A Gopher plus server has just informed you that it cannot give you the item you are trying to fetch. The message box contains some explanatory text.

### Possible solutions:

The reasons it may give include:

1. **The item is not available**, that is, it doesn't exist. Either you are retrieving a file that is being updated, and you came at a bad time, or your bookmark is out of date. Search around and try to find the item, then update your bookmark.
2. **Please fetch this item later, when the server is less busy**. Try again later.
3. **The item has moved**. Use the new location to [fetch](#) the item.

The Gopher server usually returns the administrators email address. Contact this person if you need to, but try to do so as a last resort.

---

### **See also**

[Understanding error messages](#)

## What is Gopher+?

After the original Gopher was used for a period of time, the Gopher Team at the University of Minnesota decided to add some features to address various needs. These features are often called *Gopher+*, and the original set of Gopher features are sometimes called "Gopher Plain" or *Gopher0*. Eventually it will all be called *Gopher*.

Gopher+ features can be divided into two categories: **extended information** and new **interactive items**. Extended information is really *more* information; for instance, a Gopher server might tell you who administers it; or, an item might be available in several formats. The interactive items are described below.

### Extended information

A Gopher+ server may provide a variety of new information. The actual bytes look something like "+ADMIN" or "+ABSTRACT". WSGopher interprets a number of these, and passes the rest along unchanged. The following table shows many of the items, and what WSGopher does with them.

<b>Bytes</b>	<b>Action</b>
<b>+INFO</b>	Realizes that extended information is present, but doesn't show you the bytes
<b>+ADMIN</b>	Shows you "Administrative info:" and whatever subcategories may be present
<b>+ABSTRAC T</b>	Shows you "Abstract:" and the abstract text
<b>+VIEWS</b>	Shows you "Extended view info:" and lists the views as they appear. Note that many views include the size of the item.
<b>+ASK</b>	Shows you "Ask info was found" but not all the boring Ask form setup. WSGopher processes this stuff and keeps it; if you fetch the Ask item, WSGopher first creates a form window using the setup.

One of the most frequently used items are the [extended views](#). With extended views the Gopher administrator can offer an item in a variety of forms. For instance, a text file might be available as plain text, and PostScript, and a word processor format. Only one item would appear in the Gopher directory, and WSGopher can automatically select the 'right one' based on the users preferences.

### Interactive items

Gopher+ defines a new interactive item, the [Ask form](#). The form is like a dialog, containing text, items to select, and fill-in-the-blank data. Once you fill in the form, you click the **Send** button. Then WSGopher sends your data to the Gopher server and retrieves an item for you.

With Ask forms, the Gopher administrator can support advanced queries, data entry, maintenance of various types, enrollment and registration, and many more kinds of interaction.

---

### **See also**

[Getting information on an item](#)

[Getting extended information](#)

[Extended views](#)

[Ask forms](#)



## Extended views

Extended views allow Gopher to provide information in an almost unlimited variety of ways. It does this by adding **views** on the basic Gopher types, or other means of 'looking at' a given piece of information. Any Gopher item can have one or more views; you fetch the item using one of those views.

A view contains the following pieces of information:

- a unique name, such as 'application/msword' or 'file/zip'
- an optional language, such as EN\_US (for English U.S.) or FR\_FR (for the French they speak in France, as opposed to Belgium, Canada or Switzerland)
- an optional size, expressed in 'K', or 1024 bytes; a 100K file would be about 102,400 bytes

WSGopher adds more information to views, including:

- The native Gopher type this view corresponds to
- The viewer program used to look at data in this view, if WSGopher doesn't handle it itself
- The file extension that this view should be saved to disk with, if appropriate
- The ranking, or preference, associated with this view

For the sake of example, and to help acquaint the user with views, we'll offer some representative examples. This is not an all-inclusive list and the information may be subject to change.

### Directory views

<b>View</b>	<b>Meaning</b>
application/gopher-menu	Standard Gopher menu
application/gopher+-menu	More extensive, Gopher+ menu; includes extended information on items in the menu
text/html	An HTML page containing the items in the directory and the associated URL; currently, you need a viewer such as Cello or Windows Mosaic to use this
Directory/recursive	Standard Gopher menu containing all the items on this Gopher server
Directory+/recursive	Gopher+ menu containing all the items on this Gopher menu, and the extended information for the items

### Text views

<b>View</b>	<b>Meaning</b>
text	Plain text, just like the 'normal' Gopher text item
text/plain	Same as text
text/rtf	Rich Text Format
text/postscript	PostScript; probably requires a viewer like GhostScript
application/microsoft-write	Windows Write format

A number of proprietary word processor formats are also supported.

### Image and movie views

<b>View</b>	<b>Meaning</b>
image/gif	GIF
image/JPEG	JPEG
image/pcx	PCX
image/eps	Encapsulated PostScript
video/mpeg	MPEG movie format
video/quicktime	QuickTime movie format

There are many more image formats than shown here.

### **What are you expected to do with views?**

WSGopher is configured so that you do not need to think about views; WSGopher will *try* to do the 'right thing' with the extended view information it receives from the Gopher server. The [User Options](#) dialog controls whether WSGopher will figure this out on its own, or will always need your intervention.

With this configuration, you will *only* need to select a view if *none* of the views for an item have a ranking (or preference). Similarly, you will never see the Extended View Editor unless you select a view that WSGopher does not have in its configuration.

However, WSGopher supports all the operations you need to control the extended views.

---

### **See also**

[User options](#)

[Selecting an extended view](#)

[Editing extended views](#)

[Ranking extended views](#)

[Language used in extended views](#)

## Getting extended information

When you fetch an item, WSGopher checks the "Gopher plus" attribute. If it is set, and the item does not have any extended information associated with it, then WSGopher first retrieves the extended information. Then WSGopher will fetch the item using the new information.

---

### **See also**

[What is Gopher+?](#)

[Extended views](#)


## Overview of Ask form window

[Gopher+](#) defines an interactive form called an Ask form; sometimes you will hear it called an "ask block".

The purpose of an Ask form is to provide detailed information, from the user to the Gopher administrator. The way you interact with an Ask form is somewhat like a Windows dialog, in that you provide information in a variety of ways. You may type one or more lines, or you may toggle something on or off, or you may pick one of many. You can click a button and see yet another dialog.

Unlike a Windows dialog, Ask form windows in WSGopher have scroll bars, and you cannot currently use TAB or SHIFT-TAB to go from field to field.

Specifically, you will see the following kinds of items in an Ask form:

<b>Item</b>	<b>Purpose</b>
<b>Text</b>	Serves as a prompt, or explanation of other items
<b>Single line text entry</b>	Fill in one line. The Gopher administrator can specify a default value which is filled in for you.
<b>Multiple line text entry</b>	Fill in one or more lines; note the vertical scroll bar on the right side of this field
<b>Password single line text entry</b>	When you enter this line, you will not see anything typed on the screen.
<b>Toggle</b>	A setting you will turn on or off. The Gopher administrator specifies whether it is on or off by default.
<b>One of many (radio button)</b>	Select one of the small, circular buttons. WSGopher selects the first one by default. Only one can be selected at a time.
<b>Choose a file</b>	Use the browser button  to select a file on your hard disk. WSGopher will <a href="#">upload</a> this when you complete the Ask form.

### Text vs. Binary

When you choose a file via the Browser button, WSGopher attempts to determine if the file is text or binary. It reads part of the file and looks for characters normally associated with binary files. The reason it does this is because most Gopher+ servers can handle uploading text files, but only some (at of November 1994) can handle uploading binary files. Hopefully this situation will change soon!

You can override WSGopher's judgement by selecting one of the settings. It is hard to say what results you may get if the Gopher server does not agree with you!

### Completing the form

When you have supplied all the information you intend to, click the **Send** button at the bottom of the Ask form. WSGopher will send the information in the form to the Gopher server, and will open another window to receive the results.

### The results of filling in the form

Typically, the results of the Ask form will be a text window containing messages from the Gopher server. However, you could get any Gopher item.

---

**See also**

[Dialogs](#)



## Selecting an extended view

WSGopher may display a window containing a list of views. Each view will contain the name of the view, in the left column; you may also see the language for this view, and the optional size enclosed in angle brackets ('<' and '>').

To fetch the item with one of the views, select the views and click the **OK** button, or double-click on the view. If you select a view that WSGopher does not have in its configuration, it will pop up the [Extended Views Editor](#). Enter what you need to and click the **Add** button, then the **OK** button.

To not fetch, click the **Cancel** button.

---

### **See also**

[What is Gopher Plus?](#)

[Extended views](#)

[Getting extended information](#)

## Splash Window

The Splash window is the dialog that comes up when you first start WSGopher. It contains copyright and version information.

The Splash window goes away on its own after a few seconds. If it does not, you can click inside the WSGopher main window and wait; if it still doesn't go away, you might try rebooting your system and running WSGopher again.

The picture of the Happy Gopher is the property of the University of Minnesota and is used with permission. Ken Blackney colorized it for me. Contrary to popular opinion, it is **not** a self portrait!

---

### **See also**

[Introduction to WSGopher](#)

[The About box](#)

## WSGopher Features

- Fast, stable, reliable Gopher+ client program.
- Fully threaded or *multitasking* -- you can retrieve as many items at a time as your network allows.
- **WYSIWIH**, or 'What you see is what I have' - Data is available to the user as it arrives on their computer; there is no waiting and no hourglass cursor while an item is downloading. In directory windows, the user can scroll and fetch items from the menu while the directory is downloading. In text windows, the user can scroll and mark text while the text is downloading.
- Context sensitive help -- get help for the item you are working on with a keystroke or mouse click. Get help for any Gopher window, dialog, menu item or toolbar button.
- Supports all Gopher types, including phone book. Internal viewers for text and phone book; text viewer supports up to 32K lines.
- Easy use of Gopher+ features, and easy to use configuration and setup dialogs.
- Gopher+ support includes "Ask forms" in a scrolling window. Ask forms include all defined types, including "ChooseF", allowing the user to upload a file from their computer to the server.
- Uses Windows Multiple Document Interface (MDI), with a customized document window for each Gopher item type.
- Easy to fetch/save/ edit bookmarks. First to support categories of bookmarks.
- Supports printing, including Windows Print Setup, landscape and portrait, printer options, print preview, print using window or printer font.
- Supports copy to Windows Clipboard, both full documents and selected areas.
- Viewers for downloaded items can be configured in WSGopher, but by default it will use the File Manager configuration.
- Windows can be stacked, tiled, minimized and maximized. WSGopher also keeps a list of current documents by title, so that an existing window can be easily located and brought to the front.
- Windows with network activity have their own Status Bar for progress messages.
- Network activity is not affected by altering the window; however, closing a window safely cancels network activity if it is in progress.
- Gopher item type is **always** represented in a drop list, never as a code the user has to understand and enter.
- Supports Boolean text search within a window.

### Directory

- Items shown in a scrolling list, supports roughly 8k items. Item type is denoted by a bitmap. The directory window is resizable.
- Directory supports keyboard as alternative to mouse, including Page Up, Page Down, Home, End, Next, and Previous.
- Double clicking the item is a shortcut to fetching the item.
- List can be scrolled horizontally if needed.
- Directory can be printed or copied to the Windows Clipboard.

### Text

- Text font can be easily specified with the standard Windows font dialog.
- The entire text document can saved to disk, printed or copied to the Windows Clipboard. For the sake of consistency, this is only possible when the document is finished downloading.
- Text can be marked with the mouse, via press-and-drag (window scrolls up or down as needed), or double click to select a single word. Marked text can be saved to disk, printed or copied to the Windows Clipboard. You can mark text, and copy/save/print it, even if the document itself is still downloading.

- While marking, the text document's Status Bar shows in 'line:column' format where the start and current positions are. If your starting and ending points are the same, then the current position in the document is displayed and no text is marked.
- Text marking is supported whether the current font is fixed or proportional.
- A legal DOS filename is determined from the title (if possible) and supplied to the user when saving to disk.
- Window can be resized, and supports both vertical and horizontal scrolling.
- Keyboard keys including Page Up, Page Down, Home, End, Next, Previous, Left, and Right are supported.

## **Search**

- The search string is 'remembered' between queries and between sessions.
- A query opens a directory window whose title is the query title plus the query text; this makes it particularly easy to refine queries, and to launch parallel queries.

## **Download (Images, DOS archives, etc.)**

- A legal DOS filename is determined from the title. If the title includes an extension, then that is used; otherwise WSGopher supplies a default using the document type. The standard File Open dialog box is used to specify the filename; WSGopher supplies a reasonable set of filters plus one matching the file extension.
- Files may be viewed when download is complete; this can be repeated as often as the user likes.
- Files may be saved on disk for future use; by default, downloaded files will be deleted when Gopher exits, or the user can select the Delete Files item in the File menu.
- The Delete Files dialog lets the user change the Save/Don't Save setting for downloaded files, and lets the user delete marked files now instead of waiting for Gopher to exit. Also, the cumulative size in bytes of the marked files is displayed.
- WSGopher uses File Manager associations to select the proper viewer for a file. The user can override this selection with the Viewers item in the Configure menu.
- The directory where downloaded files are placed is configurable; defaults to the working directory, or use the Local Directories item in the Configure menu to override.

## **Phone Book**

- The Phone Book is an internal viewer, and supports copying results to the Windows Clipboard and printing. The window is resizable.
- When the document window is created, the viewer connects to the CSO server and downloads the 'fields' supported by that server. These fields are then put in a standard Windows "drop list" where they can be used to assist in forming queries.
- Return information is parsed to eliminate most of the "noise" text.
- The viewer supports sending multiple queries to the server.
- The "results list" supports multiple selection, so you can easily copy sections of the results to the Windows clipboard.

## **Telnet/3270**

- The paths to the telnet and 3270 executables are configurable. WSGopher supports a flexible command line, where host and port parameters are inserted in the proper place on demand.
- WSGopher pops up an information window containing the host name, port, and any advice given by the Gopher server (such as login ID).
- WSGopher launches the telnet application and passes hostname and port on the command line. If the telnet application does not understand this (as some don't), then the user can 'copy' the hostname from WSGopher's telnet info window to the Windows Clipboard, then paste it into the appropriate place in the telnet application.
- WSGopher supports "extended views" where a Gopher+ server can advise the client

which type of emulation to use; this could support more than just telnet and 3270.

### **Printing**

- In the Page Setup dialog, the user can select margin widths for top, bottom, left and right, and specify whether or not to print headers and/or footers.
- Since the standard Print Setup is supported and used, WSGopher can print portrait or landscape, and supports any other options specified in Print Setup.
- Supports Print Preview for all document types that can be printed
- Printing uses selectable printer font, or font used by window you are printing from.

### **New Gopher**

- The New Gopher dialog allows the user to fetch a Gopher item not currently in a directory menu.
- If the New Gopher dialog detects that the Windows Clipboard contains data which could be a bookmark (using the 'standard' notation generated by the Unix client and others), then this information can be pasted directly into the dialog with a single button click. The bookmark data can be surrounded by other text, and does not need to be at the left margin. Note that the dialog recognizes standard item type codes and displays the right selection in the item type droplist.
- The New Gopher dialog supports URLs; you can paste a URL into the window, and the dialog will automatically convert it to a "normal" bookmark.

### **Bookmarks**

- The bookmark for any active document can be saved by an entry in the Bookmarks menu, or (preferred) the
- button in the Toolbar. Directories can also save bookmarks for any item in the menu.
- Duplicate bookmarks and bookmarks with ridiculously long paths (like those sometimes generated by index searches) are supported. In the first case, this makes it easy to clone a bookmark.
- Bookmarks can be added, deleted and modified. One helpful feature is that item type can be easily corrected. This is often used when a Gopher server incorrectly advertises a file as text, when it is really a DOS archive or PostScript file, for instance. The bookmark for the item can be saved, the item type corrected in the Bookmark Editor, and then the item is fetched from within the Bookmark Editor.
- You can save and fetch bookmarks for Ask forms.
- Bookmarks can be copied to the Windows clipboard in 'standard' Unix client format.

### **Miscellaneous**

- The 'redundant home server' is supported, and the initial menu title. Check the Configure menu, Home Gopher item.
- WSGopher looks for its INI file in the directory where the executable is installed; then in the current directory; finally in the Windows directory (wherever that is on your system). If not found, it is created in the directory where the executable is installed.
- WSGopher tries to use a reasonable size for the main window.
- When you exit WSGopher, it 'remembers' its size and position on the screen, and whether it was minimized, maximized or normal size. It then uses these settings when you next start up.

---

### **See also**

[Introduction to WSGopher](#)

## What's new in WSGopher 1.1

### New in WSGopher 1.1

- Addition of [Cancel](#) and [Cancel All](#) buttons/menu options. These buttons cancel network activity for the current window or all windows, respectively. You will be asked whether you want to save any data you have already accumulated.
- [Home Gopher](#) is now more robust. First, if you have two [Home Gopher servers](#) configured, WSGopher (again) picks one at random. This was broken in version 1.0 but worked before that.

Second, if one Home Gopher fails, and you have two configured, WSGopher will automatically try the "other one". If both Home Gophers fail, then you will be presented with a dialog box explaining what happened, and then the Home Gopher setup.

Several individuals pointed these problems out, including Rob Peterson and Andy Berkvam.

- The network layer is more robust. For one thing, if you cannot create a socket, you will get a more reasonable error message unless you are indeed out of resources. (A "socket" is the piece that clients and servers talk to each other through; if you can't make one, then you are really going nowhere.) Thanks to Stephen Trier for pointing this out.

In general, error reporting is improved.

- Longer [ask forms](#) should work better.
- [Text documents](#) should download and display more quickly; the display is also improved. Sometimes there was a "ghost line" at the bottom. I am hoping that some lines that weren't displayed will now be. Mark Johnson and Ashok Aiyar found this.

The temp files that WSGopher used to create for large text documents are no longer used. I have tested the new logic with files up to 32,305 lines, about 1.8 MB; the download seemed to have a consistent speed throughout. Thanks to Mark Edwards and Kyle Parrish for helping me to find largish files.

- When you are [selecting text](#) in the text window, the line containing the selected text no longer goes up and to the left one pixel.
- The text window scrollbar now works like you would expect; operations that go to the bottom now position the scrollbar at the bottom, etc. Thanks to the countless people who mentioned this :-)
- The results of [phone searches](#) now can be quite long, on the order of 8K lines if needed. I have been unable to find a phone search that returned more than 700 entries, or roughly 4K lines.
- When you [fetch](#) something from the [Bookmark Editor](#), the editor can either stay up (as it has in the past), or will be minimized or close automatically. See the [Options dialog](#) to control this behavior. Many, many people suggested this to me.
- The [Information window](#) now has buttons for copying, closing and help. The way copying works is this: if you have any text selected in the window, then that text is copied. Otherwise, all the text in the window is copied.

- The [phone book](#) no longer auto-selects the "name" field. This is more appropriate for the newer CSO servers, which either don't have a default field or have one other than "name". There is no means by which a CSO client, such as WSGopher, can determine which field is default. Thanks to Steve Fram and Peter Wood for their correspondence.
- I [believe](#) I have worked around the "empty directory" problem. All the empty directories I have found since that time have indeed been empty. You should now be able to safely use "application/gopher+-menu" at the top of your Preferred Views list, like I do :-)
- If you select an ask form, and for some reason the form does not have any ask data, it will attempt to get it from the Gopher server. If it fails the form will be closed, after an explanatory message. Otherwise, it's business as usual.
- Copying exceptionally large amounts of data to the [clipboard](#) now works. For instance, you can now copy "All the Gopher Servers in the World". Various folks have pointed this out to me, but it was really hard to track down because you had to copy (it turns out) more than a `segment' worth; who made up this segmentation stuff, anyway?
- WSGopher now is much more proactive in detecting the end of the data stream *without* waiting for WinSock to send a network event to that effect. This means that many Gopher+ images should be viewed immediately when they are 100% complete; also directories, text files and extended bookmark information should be complete much more quickly. This should be most helpful to users of Trumpet 1 beta 10 and beyond.

This still won't help some Gopher+ downloads, or any Gopher0 binary downloads. If the server doesn't tell WSGopher exactly how large the item is, or if it's not delimited the way a directory or text file should be, then WSGopher has no way of knowing.

- Added a [Fetch](#) command to the Bookmark menu; this displays a dialog that contains two scrolling lists, one for the current categories (assuming you have any) and one for the bookmarks in the category you select (first shows "default category" if you have one). Select a category, then select a bookmark. To fetch, either double click the bookmark or click the **OK** button. It's a lot faster than using the Bookmark Editor. This dialog is resizable; the title list gets wider but the category list stays the same. It's a feature, not a bug :-)
- If you fetch an item in a directory, and along the way you select a view for this item, WSGopher now "cleans up" the item so that when you next fetch it you can select a view without being forced to use the same view as before.
- Implemented Paul Lindner's advice with respect to extended views and language tags. Thanks, Paul!
- Implemented a [reload](#) feature; for directory, text and phone windows, you can use File/Reload or the F5 key to refresh the contents of the window. This only works when the transfer is complete.
- Fixed a long standing bug where, if for some reason you were downloading a binary file into a text window, the window no longer crashes just because it can't reasonably handle lines more than 32K bytes long. Just the same, you might still not see anything in the text window. The moral of the story is not to download binary files into a text window! If you do this, try File/Fetch Item As to use the same bookmark with the Image type.
- Implemented an intelligent [back track](#). Any window that was created via another window, that is something selected from a directory, or the directory that results from a

search, is capable of restoring its parent if that parent still exists. See the arrow that points up and left in the Toolbar, or Window/Back track. I have lost count of the number of people who asked me for something like this; Andy Berkvam was one of the more recent folks who I discussed it with. Thanks to everyone who brought it up, no exceptions.

- Along the same lines, when you [fetch a bookmark](#), WSGopher now tries to determine if you already have a window for that bookmark; if so WSGopher restores the window rather than fetching again. Note that in many cases you can "reload" if needed.

Ask forms are the exception; you may have more than one instance of an ask form.

- Added a setting to the [Options](#) dialog to accommodate users who do not wish to use WSGopher as a multi windowed application; some folks are just more comfortable with the single window approach, apparently. Anyway, the setting is kept across sessions and enforced during the session.
- Alert user Robert Fabian discovered that if you use certain defective free True Type fonts with WSGopher, that it can crash with a "divide by zero" error ... WSGopher now protects itself from such bogus fonts.
- Michael Haseltine (and probably others) pointed out that, when you are [saving a text window to disk](#), WSGopher doesn't check to see if the file already exists. It does now.
- Added a new menu entry and Toolbar button for [saving the bookmark for a directory](#). It is only available when the current window is a directory.
- Fixed a bug in the ask form that would cause one or more Note's at the end of a form to not be displayed. Gail Bird, our project Gopher admin, found this. Thanks, Gail! Also added page up, page down, home and end to form windows; I wish I could figure out how to add tabs and back tabs so it would act like a real dialog.
- Thanks to Robert Fabian, I found and fixed a bug where occasionally a text file would think it is "finished" only partway through.
- You can now pass a Gopher URL on the command line; this will override the Home Gopher server. Scott Barker of UNC provided the impetus.
- If you try to [print](#) or [preview](#) and the file is not completely downloaded, you will now get a dialog box to the effect that you can print, but it will be incomplete. Milton Turner suggested this.
- You can now specify a selector with your Home Gopher server(s). Mark Johnson prompted me on this one.
- The [information](#) window is now resizable.
- You can now specify an alternate directory for configuration files, including WSGopher.INI. There are two methods, the environment variable WSG\_CONFIG and the command line argument -I followed by the directory name. The command line argument takes precedence.

Let's say your configuration files, including the INI, the CNF files and the help file are stored in F:\gopher. You could call WSGopher like so:

```
wsgopher.exe -IF:\gopher
```



or you could set the environment variable like so:

```
set WSG_CONFIG F:\gopher
```

Many thanks to Alex Reijnierse for his patience in helping me work through this, and to Carl Karcher.

- Fixed problems with ask blocks with no associated views; this is pretty unusual ... but hopefully now WSGopher will work with the Stanford Portfolio system.
- [Text search](#) *within* WSGopher now supports the Boolean operators AND, OR, NOT and ADJ. These are simple Boolean searches, no parantheses, and only two arguments. For instance you can search for

Dave OR David

but not (Dave OR David) AND Brooks

The operator separates the operands; for instance

Dave Brooks AND WSGopher

matches material containing both the strings "Dave Brooks" and "WSGopher". Blanks count, except between the operator and the operands.

The search is still line oriented. When a match is found in a text window, the operands are selected as well as the material inbetween. As before, search is supported in directories, text windows and phone search results.

A text string without one of the Boolean operators is used in a plain search, as before.

Carla Cavianai, the TIS training coordinator, gets the credit for this idea. I think it is way cool.

---

***See also***

[Introduction to WSGopher](#)

## Upload a file in an Ask form

One item supported by the Ask form is the ability to upload a file from your computer to the Gopher server. You must be very careful **not** to send confidential or proprietary information, unless you are *absolutely sure* that it is going to the right place!

Use the File dialog box to choose a file on your computer. You will notice that the file already must exist. Also, the Ask form does not give you the opportunity to edit the file path by hand. However, you can use the Browse button and select a different file as often as you need to.

Be sure to check the discussion on **Text vs. Binary** in the Overview topic.

---

### **See also**

[Overview of the Ask form](#)

## The Fetch Bookmark Menu

The Fetch Bookmark menu is a faster alternative to the [Bookmark Editor](#), if all you want to do is fetch a bookmark.

Select **Fetch** from the **Bookmark** menu, or click **■** which is now the leftmost button in the Toolbar. You get a resizable dialog box with several scrolling lists; the list on the left contains your category names, and the list on the right contains the titles of the bookmarks in that list.

As you select a category, the bookmark titles for that category will fill in the list on the right. You can double click on a bookmark title to fetch the bookmark; that will close the window. Clicking on a bookmark title, followed by the **OK** button or the ENTER key, will also do the job.

The Fetch Bookmark menu now supports the keyboard; type a single character to go to the 'next' item that starts with that character.

---

### ***See also***

[The Category Window](#)

[Setting a Default Category](#)

[Overview of Bookmarks](#)

[Fetching Bookmarks](#)

## Backtrack

Starting with WSGopher 1.1, Gopher windows now know the URL of the window that launched it, that is its *parent* window. If you [fetch an item](#) from a directory, then the directory window is the items parent window. If you use a [search](#) window to form a query, the result is a directory; in this case the search window is the parent of the directory window.

When the active window has a parent window, then you will be able to select Fetch from the Window menu, or use the ■ Toolbar button.

Note that items fetched from the Fetch Bookmark menu, the Bookmark Editor, the New Gopher dialog or the Fetch Item As dialog do not have parents. Also, the Home Gopher window does not have a parent.

---

### **See also**

[Fetch Bookmark menu](#)

[Bookmark Editor](#)

[New Gopher](#)

[Fetch Item As](#)

[Home Gopher](#)

## **Adding Directory Bookmarks**

In response to a demand to make it easier to add the bookmark for a directory, as opposed to the selected item in the directory, I've made it possible to do so in one step.

Starting with WSGopher 1.1, you can select Add Directory Bookmark from the Bookmark menu or click the ■ Toolbar button. The steps after this are the same as for adding the bookmark for an item, except that the directory bookmark is added instead.

---

### ***See also***

[Adding a bookmark](#)

## Cancel the Current Transaction

Starting with WSGopher 1.1, you can now safely cancel network activity in progress for the *active* window, and for [all windows](#), without losing the data you have already collected.

To cancel the current transaction, select **Cancel** from the **File** menu, or click the ■ Toolbar button. You will see a dialog telling you how many bytes you have downloaded, and asking whether to close the window or keep the (possibly) incomplete data.

The reason I call the network activity a *transaction* is because ... well, I just do.

---

### **See also**

[Fetching Bookmarks](#)

## Cancel All Transactions

Starting with WSGopher 1.1, you can now safely cancel network activity in progress for all windows without losing the data you have already collected.

To cancel the current transaction, select **Cancel All** from the **File** menu, or click the ■ Toolbar button. You will see a dialog telling you how many bytes you have downloaded, and asking whether to close the window or keep the (possibly) incomplete data.

The reason I call the network activity a *transaction* is because it is like a transaction you might do at the store or bank. You send some bytes to the Gopher server, it sends some bytes in return, and then you close the connection. For the next transaction, you start again.

---

**See also**  
[Fetching Bookmarks](#)

## Reload

Starting in WSGopher 1.1 you can *reload* a directory, text window or phone book. The window empties itself, reconnects to the same Gopher server, asks for the same item, and downloads it again.

Right now, this should be most useful to Gopher server admins who are constructing menu hierarchies, editing files, etc. It will also be useful to users who have the ability to update their own Gopher hierarchies; I hope that increases as time goes on.

---

### **See also**

[Fetching Bookmarks](#)



## What is changed in WSGopher 1.2

- Worked on problems with [Ask blocks](#), including:
  1. You can now follow Ask blocks across links; on a related note, the Send button no longer appears until the ask block is built.
  2. I *think* I have fixed problems with gshield, at least I have for David Drum of MORENet.
  3. You can bookmark ask blocks, and fetch items as ask blocks. The dialogs New Gopher Item, Fetch Item As, and the Bookmark Editor all have Ask block fields in addition to the Gopher+ field.
  4. When you have an ask block with a Choose File field, that is, one that prompts you for a local file, WSGopher now reads the file (well, the first part of it, anyway) to determine if it is text or binary. The method of uploading a binary file is different from uploading a text file, and it is not widely supported in Gopher servers prior to version 2.1.
  5. With help from Gerrit Thomas, binary transfers are now much more likely to work!
- Fixed a bug that caused upload of large files to not work on some WinSock stacks. Thanks again to Bob Quinn and Vikas Garg for their help!
- Fixed cleanup bug which prevented you from using the same [phonebook](#) twice in one session. Thanks to Kay Johnson and Steve Fram for reporting this.
- Ports are now unsigned integers, like the WinSock spec calls for; this only affected sites using ports over 32767.
- Case sensitive [searches](#) *within* a Gopher window, where at least part of the search string was upper case, now work; thanks to Stephen Trier for reporting it and providing a test case.
- Even though I thought it was working, when you [saved a text file](#), the file dialog was not checking to see if the file already existed and prompting you if so. This works, even though I advertised it as working earlier. Thanks to the several individuals who pointed it out.
- Some [text files](#) had a trailing period; this is now eliminated.
- The [Fetch Bookmark](#) dialog now supports the keyboard, in that you can type a single character in either of the lists (category or bookmarks) and find the 'next' item starting with that character.
- Fixed a bug reported by John Morphet that caused WSGopher to GPF when [copying](#) very large amounts of data to the clipboard. A note on this: during testing I found that some products did not paste large clipboard data well, including Wnot and the new Clipbook. I have also heard but not confirmed that Word 2.0 may actually GPF when pasting text data. On the other hand, Word for Windows 6.0 was able to paste the entire text of a fairly long document. Your mileage may vary.
- Jim Minatel of Que just phoned me (don't try this at home!); as a result, I have changed the key that invokes the [Info window](#) from '=' to CTRL+I. Advanced queries, like options for Veronica and Jughead, should now work correctly. This is probably the last time I'll try to support keys from the Unix client :-)

Many of the following were found by friends in the San Jose area; thanks to Oliver, Jack and other fine folks:

- I believe I have found and fixed a GPF that is very hard to reproduce, but apparently

has to do with the way WSGopher registers windows by URL, and what happens when a Home Gopher server fails.

Along with that, if your second attempt at a [Home Gopher](#) succeeds, windows launched from that directory now have a parent they can [backtrack](#) to.

- The [Home Gopher](#) setup dialog now handles zero ports better.
- When WSGopher is exiting, it now cancels any outstanding requests to resolve hostnames. This will probably affect you most if you are using a dialup line.
- You can no longer [rename a category](#) to an existing category; also, if you delete the default category, the "default category setting" is now set to "no category".
- Attempted to resolve problems seen occasionally when you use a keystroke in an empty [directory](#) window; the error is "Directory has invalid selection", and sometimes that directory would never get filled.
- If a [text window](#) has a horizontal scrollbar, and you scroll right, and then resize the window so that the horizontal scrollbar disappears, the text would remain scrolled.
- It was possible to GPF in the [Bookmark Editor](#) if you had a category with only one bookmark, you select it, and then change the text in the dialog without selecting the bookmark again, and then click the [Delete](#) button. I also found several other similar problems and fixed them.
- The [Always Maximize Windows](#) setting was not taking effect with the Home Gopher window; windows after that would be maximized.
- The [Print](#) and [Copy](#) toolbar buttons are now in sync with the windows that support those operations.
- WSGopher now has the non-standard behavior that TurboGopher and the Unix text gopher client have, when it comes to interpreting Gopher+ error messages, particularly from gshield. These messages lack the error code token, and I was displaying them as an unknown error type.
- When you scroll right in a [text window](#), and select text, the right text is now selected. Thanks to Ken Blackney for reminding me about this.
- There is now a shortcut in the [Category](#) dialog; if you type a name into the Name field, and the name is not assigned to a category, then when you click on the OK button the dialog asks you if you wish to create that category, and if so, then that category is both created and used for your selection.
- Chris Halverson noticed a grammar mistake.

**Note:** several people reported that the [Info window](#) no longer behaves like they expect; if they have selected an item in a directory, then bring up the Info window, the information shown is for the directory, not the item. However, this is not a bug, it's a feature! The Info topic explains this.

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**See also**  
[WSGopher Features](#)

[What's new in version 1.1](#)

## Why an alternative hypertext document?

### or, 'Toward a Component Architecture'

or, What's wrong with HTML?

The answer is that *nothing* is wrong with HTML; it does what it was designed to do, which is enhance text, provide hypertext links and inline graphics. Its popularity could be owed to the fact that it succeeds at those jobs.

However, there are a number of things HTML was not designed to do. These come to mind:

1. *HTML doesn't provide an interface to every known protocol.* I use Web browsers for looking at Web pages; it's nice that I can do FTP with them also, but they are not very good FTP clients, and they are particularly bad Gopher clients; furthermore, I can't do WAIS with most of them.
2. *HTML doesn't meet many publishing requirements.* True, Netscape has some nice extensions to HTML, and progress with HTML 2.0 and beyond continues; and SGML someday may be merged into HTML, at least a good part of it. But, HTML doesn't currently provide equation handling, tables, or real layout control, and it is not clear that advanced HTML browsers will be widely available any time soon.

On the other hand, publishing mechanisms are becoming available which do give you hypertext and advanced layout capabilities.

The University of Minnesota Gopher Mongoose team has announced a product called InternetLink which gives you the capability of placing link in an Adobe Acrobat document. The link information is in URL format, the standard format used in HTML. When the user reads the document and clicks on the hypertext link, InternetLink passes the URL to a program on that users machine that handles it, whether it is Gopher, FTP, Web, WAIS, whatever.

For more information on InternetLink please contact the Gopher team at [gopher@boombox.micro.umn.edu](mailto:gopher@boombox.micro.umn.edu).

I'd like to follow with a quote from Mark McCahill of the University of Minnesota:

[...] Given standard URLs, there is a good way for one application to signal another and tell it what to fetch; an application can ask another to get an item pointed at by a URL. Once one application can call another and tell it what to fetch, several things happen to the client architecture for internet applications.

First, there is no particular reason to write monolithic applications that claim to do it all. Instead, you can assemble a suite of components (each of which do one thing well) which work together collectively to give you all the functions of the baroque, chrome-lined, gas guzzlers. This component architecture gives the user choice about which gopher, or ftp, or http module they use. It also allows the people writing the network applications to concentrate on doing one thing really well instead of doing all things in a mediocre fashion. This also helps make the individual modules much more maintainable since they are smaller and simpler. You can see this trend in the new release of TurboGopher in that it no longer incorporates the CSO/Ph functionality inside TurboGopher. Instead it calls a helper application when it is time to handle CSO/Ph phone books. The people who live and breath CSO/Ph are probably the ones who will do the best job of writing a CSO/Ph client.

The second thing that standard URLs do to client architectures is makes it easy to do is to add internet-aware hypertext-like capabilities to a variety of applications/page description languages. If my e-mail program can call Turbogopher with a GetURL event to resolve gopher URLs, then e-mail feels like hypertext. This is what the new version of our POPmail e-mail client does. The same thing can be done with a page description language (and this is what our InternetLink plugin for Acrobat PDF files does). With standard URLs and clients that understand a GetURL message, it's straightforward to make most page description languages internet-aware, so one consequence of this is that all sorts of document types will have URLs embedded in them. There will be a proliferation of internet-aware page description languages over the next year.

So... client software starts working in two modes. You either run it as a standalone application to browse and search or another application calls it to resolve a URL. When we have internet-aware spreadsheets, word processors, mathematics packages and CAD/CAM packages, it isn't going to be because the every program turns into a 40 mbyte monster program with built-in support for gopher, ftp, nntp, z39.50, wais, http, etc. Instead, it will be because there is a standard way for one program to call a gopher or ftp or other client to resolve a URL.

What you are seeing in the new Turbogopher is just a logical extension of the helper application concept that started with calling an external telnet program in the early days of gopher, and then was extended to calling helper applications to render images, movies, and other complex documents when the Gopher+ clients were released. Now we (and others) are calling external applications to fetch items off the network... but this is really just more of the same strategy. You see the same thing in Gopher Surfer in that it can uses an external search engine (AppleSearch) to extend its functionality to include full-text searches.

So the big picture is that we are committed to component architectures because this makes it easier to write network applications, gives the users more choice in the tools they use, lets us take advantage of standardized network resource pointers (URLs), and is the shortest path to making all sorts of applications internet-aware.

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**Disclaimer:** I do not represent the University of Minnesota, and I do not wish to commit the Idaho National Engineering Laboratory in any way. I present the information above only for the user's education. Comments are welcome.

