

**PACKAGE ID** - 000634IBMPC00 WSGOPHER

**KWIC TITLE** - A Network Client Using the Gopher Information  
Discovery Protocol

**AUTHORS** - Brooks, D.L.  
EG and G Idaho Inc., Idaho Falls, ID (United States)

**LIMITATION CODE** -COPY                   **AUDIENCE CODE** - LIM

**COMPLETION DATE** - 10/05/1993   **PUBLICATION DATE** - 10/05/1993

**DESCRIPTION** - WSGOPHER uses the protocol known as Gopher, which is described in Internet RFC 1436. Specifically Gopher is a client/server protocol. Gopher servers provide information across the network to Gopher clients. WSGOPHER is an implementation of a Gopher client for Microsoft Windows 3.1 and Windows Sockets version 1.1.

**PACKAGE CONTENTS** - Media Directory: Software Abstract; Media Includes Executable Module, Auxiliary Material, User's Instructions;

**SOURCE CODE INCLUDED?** - No

**MEDIA QUANTITY** - 1 3.5 Diskette

**METHOD OF SOLUTION** - The Gopher protocol uses a simple stateless query model, which can be briefly outlined as follows: The client initiates a TCP/IP connection to a Gopher server; The client sends a text string to the server; The server sends data back to the client, and closes the connection when finished; The client closes the connection. The typical problem with TCP/IP software written for Windows 3.1 is that while network activity is taking place, either the user is prevented from interacting with the software, or the software fails if the user issues any commands which result in more network activity. WSGOPHER solves this problem in the following way: WSGOPHER uses the Windows Multiple Document Interface (MDI), associating a separate document window with each query. WinSock sends messages to WSGOPHER regarding network activity. WSGOPHER uses C++ objects to associate the message with a particular query, and passes data immediately to the associated document window. This simple architecture allows WSGOPHER to support as many simultaneous queries as the user's computer will handle. This is particularly useful when downloading large documents, or accessing slow host computers.

**COMPUTER** - IBM PC

**OPERATING SYSTEMS** - Microsoft or IBM DOS that supports Windows 3.1

**PROGRAMMING LANGUAGES** - C++

**SOFTWARE LIMITATIONS** - Precisely one instance of WSGOPHER can run on a user's computer at any time. Network connections and documents are

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**SOFTWARE LIMITATIONS - (CONT)** dynamically allocated by WSGOPHER, and so depend on the memory available on the user's computer. There are no fixed limits except those imposed by vendors upon a particular implementation of WinSock.

**SOURCE CODE AVAILABLE (Y/N)** - N

**UNIQUE FEATURES** - WSGOPHER provides a fully asynchronous interface to the network. WSGOPHER provides an MDI interface with document windows customized to the particular item being downloaded. WSGOPHER provides an internal text viewer with much more capacity than the Windows Notepad application. WSGOPHER provides an internal viewer for the CSO (phonebook) protocol which is much more interactive than most other implementations.

**RELATED SOFTWARE** - This software depends on Microsoft Windows 3.1 and Windows Sockets 1.1 being installed, configured and running correctly on the user's computer.

**OTHER PROG/OPER SYS INFO** - WSGOPHER gives the user the option of viewing binary files they download. WSGOPHER uses the Windows File Manager list of associations to select a program with which to view the file, based on the extension the user selected for the downloaded file. Alternatively, the user can configure WSGOPHER to use a particular program to view the file, based on the file's extension.

**HARDWARE REQS** - IBM PC or compatible, equipped to support Microsoft Windows 3.1 and network communications via Windows Sockets (aka WinSock) version 1.1. As note above, the network hardware could be typical network adapter, such as an Ethernet card, or a modem.

**TIME REQUIREMENTS** - Timing estimates for WSGOPHER can be affected by local network activity, long distance network activity, speed of the network hardware attached to the user's computer, and availability of the CPU (since Windows shares the CPU among the active tasks). Given that, on a local area network it may take two to three seconds (or less) to download a directory of a dozen items, and 30 seconds or more to download a menu of 900 to 1000 items. For modem based communications the user should allow an extra twenty to thirty seconds to initiate the network connection via phone line when WSGOPHER starts.

**REFERENCES** - User's Instructions on media.

**ABSTRACT STATUS** - Submitted 12/08/93. Released AS-IS December 17, 1993. There is no source code.

**SUBJECT CLASS CODE** - P

**KEYWORDS** -

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