



GAO Research Inc.

#1 In Embedded Communications Software

**GAO Research Inc.
V.44 Data Compression
Software**

<http://www.gaoresearch.com>

Product Description

V.44, the new data compression software recently ratified by the ITU, improves on the existing V.42bis standard. Depending on the kind of data, compression ratios of 6:1 are attainable with V.44. When V.42 is combined with GAO's V.92 modem software, full advantage of both standards is realized by way of greater total throughput. For example, with a V.92 upstream connection speed of 48 kbps and 6:1 data compression the data transfer rate becomes 288kbps. Due to physical limitations, hardware modems that depend on the use of serial ports are often limited to a maximum transfer rate of 115.2 kbps. GAO's V.44 software consists of both an encoder and decoder. Encoding uses a dictionary consisting of a root-array of all characters, a node tree, and a history. Input is matched against previously input strings, and if a string is matched it is transferred as a codeword and an attempt is made to create a longer string in the dictionary. The decoder recreates the original string from the binary-tree dictionary.

Leadership in Embedded Communications Software

With over a decade of experience, GAO leads the embedded communications software market by providing comprehensive modem, fax, speech, and telephony technologies; broad technical expertise; and unsurpassed support to our world-class customers including electronics, communications, and semiconductor companies across the globe. GAO's software integrates easily with MP3, MPEG, TCP/IP, and most popular real-time operating systems.

Rigorous Testing

GAO's testing facilities are equipped with state-of-the-art test equipment. Our software is rigorously tested on TAS, Consultronics, Rochelle, Advent and Telegra equipment under various channel models according to the relevant ITU or TIA standards. All GAO's speech software has passed the test vectors specified by the ITU. Our telephony software meets all appropriate TIA, EIA, BellCore, and Mitel standards. GAO also adheres to stringent quality control procedures, which is reflected in our well structured code, detailed design documentation, and well-defined design and test plans. This ensures ease of integration into the customer's system, easy maintenance, and a smooth upgrade path for next-generation customer products.

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