SuperCom Heidenhain Communication Library

Toolkit for Windows and Linux

SOFTWARE FOR THE DIGITAL FACTORY

HIGH PERFORMANCE DATA ACCESS TO HEIDENHAIN TNC CONTROLLED MACHINES

- Communication Solutions by ADONTEC
- TNC Explorer sample application
- Output of some example programs

x64 32 Bit and 64 Bit Versions available!



Control and monitor Heidenhain TNC through serial ports and Ethernet (TCP/IP)

INTRODUCTION

The **SuperCom Heidenhain Library** enables fast and accurate data acquisition of machine and process state data from Heidenhain controlled machines.

The **SuperCom Heidenhain Library** contains functions to control many simultaneous, stable and fast, data connections to Heidenhain TNC controllers. The connection can be setup using the serial interfaces or the TCP/IP protocol stack (Ethernet connection). The connection can be made locally within the factory or over a large distance via Modem, Internet or ISDN connection (see also SuperCom Suite).



Version 4.70 new !

Product Range Call Me Back

Translate

The **SuperCom Heidenhain Library** supports data communication to different <u>Heidenhain TNC</u> through **serial lines** or **TCP/IP** (Ethernet connection).

Acquire and monitor Heidenhain TNC machine state data, machine states, production data, process data and more. Several functions enable fast data acquisition of the machine status. Collect data from the Heidenhain TNC machines (data collection software) or monitor the machine status (Machine Monitoring Software) of multiple machines simultaneously.

Loading and executing NC programs, checking files and directories, retrieving and examining machine parameters, log files (logbook), tool tables and much more. The **SuperCom Heidenhain Library** also contains direct memory access functions that can be used to retrieve or modify data directly from the PLC memory.

The overall information provided by the SuperCom functions by many different ways also enables monitoring

the TNC machine status.

A Heidenhain TNC client simply connects to the **SuperCom Heidenhain library** with older and newer TNCs that have a serial or TCP/IP connection.

The **SuperCom Heidenhain Library** almost hides the complexity of the data communication to a *Heidenhain TNC* and provides functions that perform the most wanted tasks by using simple function calls. SuperCom establishes the connection to the *Heidenhain TNC* directly via the **serial** port or the **TCP/IP** protocol stack. The whole data communication is running transparently in background using high-speed functions achieving rapid results.

DIRECT ACCESS

The **SuperCom Heidenhain Library** is <u>accessing</u> the TNC <u>directly without using any other third party</u> <u>software layer</u> that often introduce huge delays or unknown behavior. The entire protocol stack is an <u>optimized in-house development</u> (as common to the SuperCom software) and do not use any external tools or libraries, drivers, OPC server, external programs etc. from third-party providers but rather accesses the TNC directly. And the SuperCom software is continuously updated.

Controlling many connections or machines concurrently is supported and that is common to SuperCom software.

SuperCom's Event-Driven file transfer functions enable accurate monitoring of the file transfer progress, providing continuously status information to the application, if needed.

The library includes high-speed functions for event-driven file transfer to and from the *Heidenhain TNC* (send files, receive files), list directories, create or delete directories, rename or delete files, read TNC configuration data, retrieve machine status, machine data, process data, read and write memory etc.



Special Features*:

Retrieve information like TNC type, NC-Version, PLC-Version and software version. Handle directories and files. Transfer files. Query program information, Errors, Execution Mode / Operating Mode, Program Status, Overrides Values, Part Count, Machine up time, Machine running time, Tool Info, Axes config, Axes position, Cutter location, DNC Mode, Spindle Speed, Temperatures, and more. Read/Write memory locations, markers, counters, inputs, outputs, timers, query and modify machine parameters and configuration values, log entries, Read and change tables, setting of special Q parameters, axes positioning (1), ...

* The amount of information may vary between the different machines (machine specific limits).

The **SuperCom Heidenhain Library** implements the protocol functions using a SuperCom communication library (serial or TCP/IP) and the SuperCom LSV/2 protocol module* that provides a stable data communication link.

*Included with this library.

The SuperCom library provides fast and rock solid functions to extract information and control one or more

TNC machines. It enables the software developer to control many connections to different TNC machines simultaneously. It enables to query information by different ways thus increasing the amount of information retrieved. Also, the amount of information supported and returned by the different TNC machines may differ.

EASY TO USE, STABLE AND FAST

The SuperCom software is particularly valued by industrial customers for its stability and speed. More than 30 years SuperCom software is supporting industrial customers in rough environment, often with strictly timing requirements.

There is only one <u>API</u> to learn! The same functions and parameters used with serial, TCP/IP or ISDN type of connections. Many sample programs included.

A list of some functions:

TECHNICAL SUPPORT

As with all SuperCom products, free technical support is included.

In addition to the large amount of functions contained in the SuperCom software, our customers enjoy our extensive information database on the various Heidenhain machines and machine data collected over the years and may help with difficult constellations.

HARDWARE REQUIREMENTS

Heidenhain TNC with a serial port interface or Ethernet (TCP/IP) interface.

Heidenhain TNC 320, TNC 360, TNC 426, TNC 430, iTNC 530, TNC 620, TNC 640, TNC7, MANUALplus, DataPilot CP 620, DataPilot CP 640, DataPilot MP 620, DataPilot 4110, DataPilot 4290 and more. **Option 18 is not used.**

LICENSE INFORMATION

One license per software developer. Executable Applications developed using the SuperCom library can be distributed royalty free. More ...

SUPPORTED COMPILERS

C#, C/C++, C++ Builder, Delphi, MS .NET, Visual C++, Visual Basic, Visual Basic NET, VBA, LabView, FoxPro, PowerBuilder and other Compiler and programing languages.

What to order?

The **SuperCom Heidenhain Library** needs a <u>SuperCom communication layer</u> for the data transfer (Serial and/or TCP) e.g. <u>SuperCom Serial for Windows</u>, <u>SuperCom Suite for Windows</u>. The SuperCom communication layer is responsible for establishing connections and low level data transfer.

 \ast The SuperCom LSV2 Protocol Module is included with the SuperCom Heidenhain Library.

Favorable combinations for Windows 🌯 📢 or Linux 🍄

A flexibel and portabel library for use in Windows ಶ or Linux 🍄 application*.

* Please select the specific Windows or Linux product codes. [Product Range] [Price List] (also for updates)

Using SuperCom you overcome many limitations. SuperCom was designed and used from the beginning in high demanding data communication applications.

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