# D2000 KomAPI

### **Definitions**

The document describes the D2000 KomAPI programming interface available for Windows, Linux, and Raspberry PI.

The version of the protocol interface is 1.27.

Demonstration files (contained on the D2000 System installation DVD) have been created in the development environment Microsoft Visual C/C++ v5.0 and v6.0. In the environment during the creation of the project, the parameter "Struct member alignment = 8 bytes" was set, except for the structures, which use explicitly stated "pragma Pack".

On Linux, GCC 6.2.1 was used to compile a template shared library (on Centos Linux 7.2).

### Introduction

The **D2000 KomAPI** programming interface allows the creation of a communication protocol (thereinafter protocol DLL) using sets of functions contained in the dynamic library (DLL). The D2000 KOM communication process calls the functions and also it supports the user by providing call-back functions, which use features of D2000 system communication objects (line, station, I/O tag).

For users, the files *definitions.h*, *OEM\_Prot1.c*, *modbus.c*, and *modbus.h* are available (they are located in the D2000 system installation in the *utils\KomAP* directory, e.g. *d:\D2000\D2000\_EXE\underline{Lutils\KomAPI}*), which can be used as examples for programming own protocols. The given example implements the MODBUS protocol according to the Modicon specification (see the documentation at <a href="http://www.modicon.com/techpubs">http://www.modicon.com/techpubs</a>).

## Configuration of communication lines and stations

- Protocol DLL interface can be used for communication lines of categories Serial, RFC2217 Client, Ext KOM, API, TCP/IP-TCP, TCP/IP-UDP, MO
  XA IP Serial Library, and SerialOverUDP Device Redundant.
- Available station protocols: **OEM\_Prot1** up to **OEM\_Prot16**.



#### Related pages:

D2000 system interfaces

D2000 KomAPI - interface description

D2000 KomAPI - structures D2000 KomAPI - functions

D2000 KomAPI - call-back functions D2000 KomAPI - address configuration