OPC Client Toolkit

Target

With the Tani OPC Client Toolkit a program gains access to OPC systems available in the network or running on the same machine.
The focus lies in controllers and devices.

Functions

- Browse
- Synchronous read
- Asynchronous read (Data per event)
- Synchronous write
- Variables, texts, arrays, structures
- File functions (over RPC)

OPC Variants

Supported are OPC-UA and OPCpipe.

Programming Languages

The libraries are existing as dll (Windows) or shared objects (Linux). The calling conventions are that from the underlying operation system.
The package includes

- Program in C. Usable on all systems.
- Program in C#. Usable on all systems.
- Libraries for the supported operation systems.

Operating systems

Supported are all operating systems the products OPC Server or PLC Engine are existing. This are

- Windows
  - From Windows XP up to Windows 10. The server variants are supported also.
  - 32 and 64 Bit
  - INTEL processors and compatible
- Linux
  - The OPC Toolkit it POSIX compatible. So all systems with GLIBC or uGLIBC can be used.
  - INTEL processors and compatible. 32 and 64 Bit
  - ARM processors. 32 and 64 Bit
  - MIPS processors. 32 and 64 Bit
  - Please call for other processors.
  - Multicore systems are recommended. Single CPU systems can be used also.

Not all programming languages do exist for all platforms. So the Microsoft .NET languages are mostly existing for Windows. c# unter Linux is basing on .NET Core.

Memory usage

Program code: A minumum of 4MB will be occupied by the program code. The exactly amount of used memory varies between the operation systems. So shared libraries normally are loaded once. So if the standard library is not already loaded by another program it occupies 4MB of additional memory.
User data: A minimum of 2MB data is used by the OPC libraries. Additional the data from the controllers are hold in memory for old/new data conversions. This cache memory needs the lenght of the item data plus64 bytes. Each connection will need 4kB of memory.
Maximum number of connections: 60000.
Maximum length of one element: 4GB.
Maximum number of elements each connection: 4 Million.
Maximum number of all items: 16 Million.
Maximum OPC groups each connection: 100.

Technical Limits

As much of connection can be handles simultanously the underlaying operation system is supporting.
Each connection can hold as much items the memory can hold.
With the Tani products tested are 200 connections and 1 000 000 items.