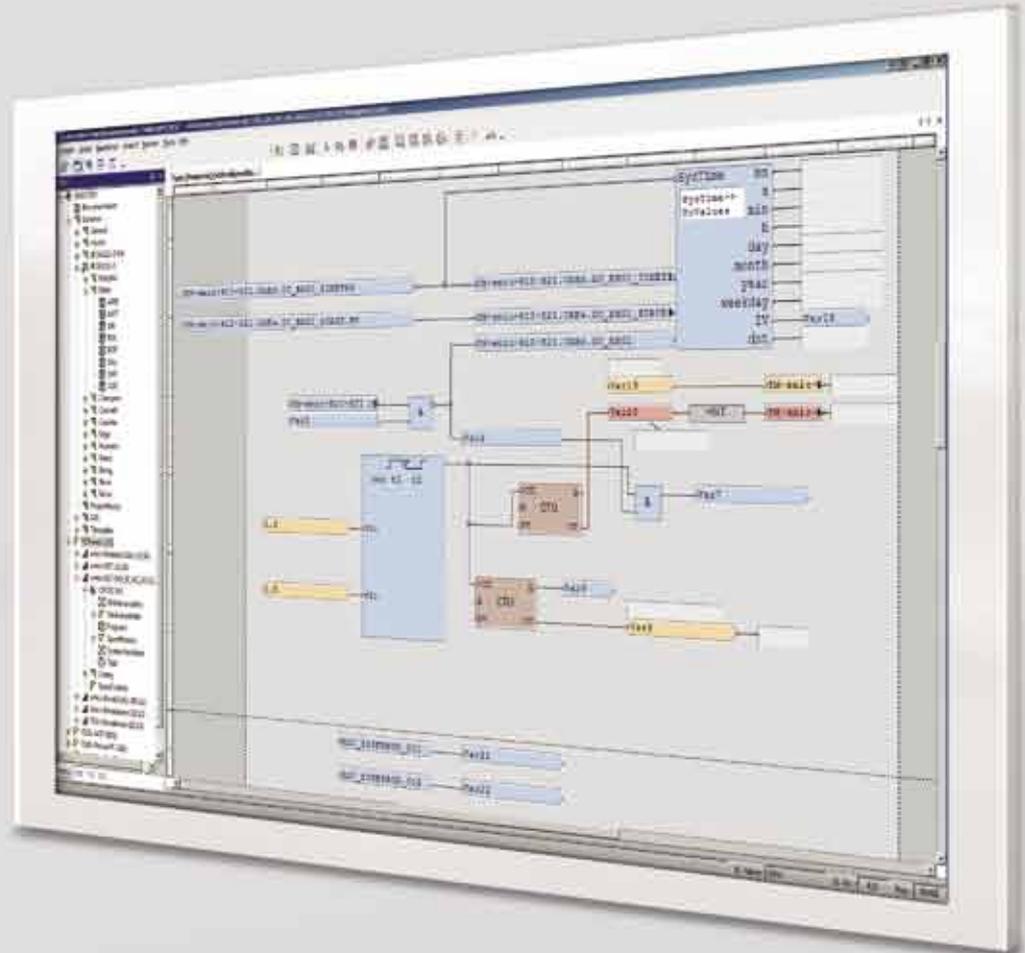


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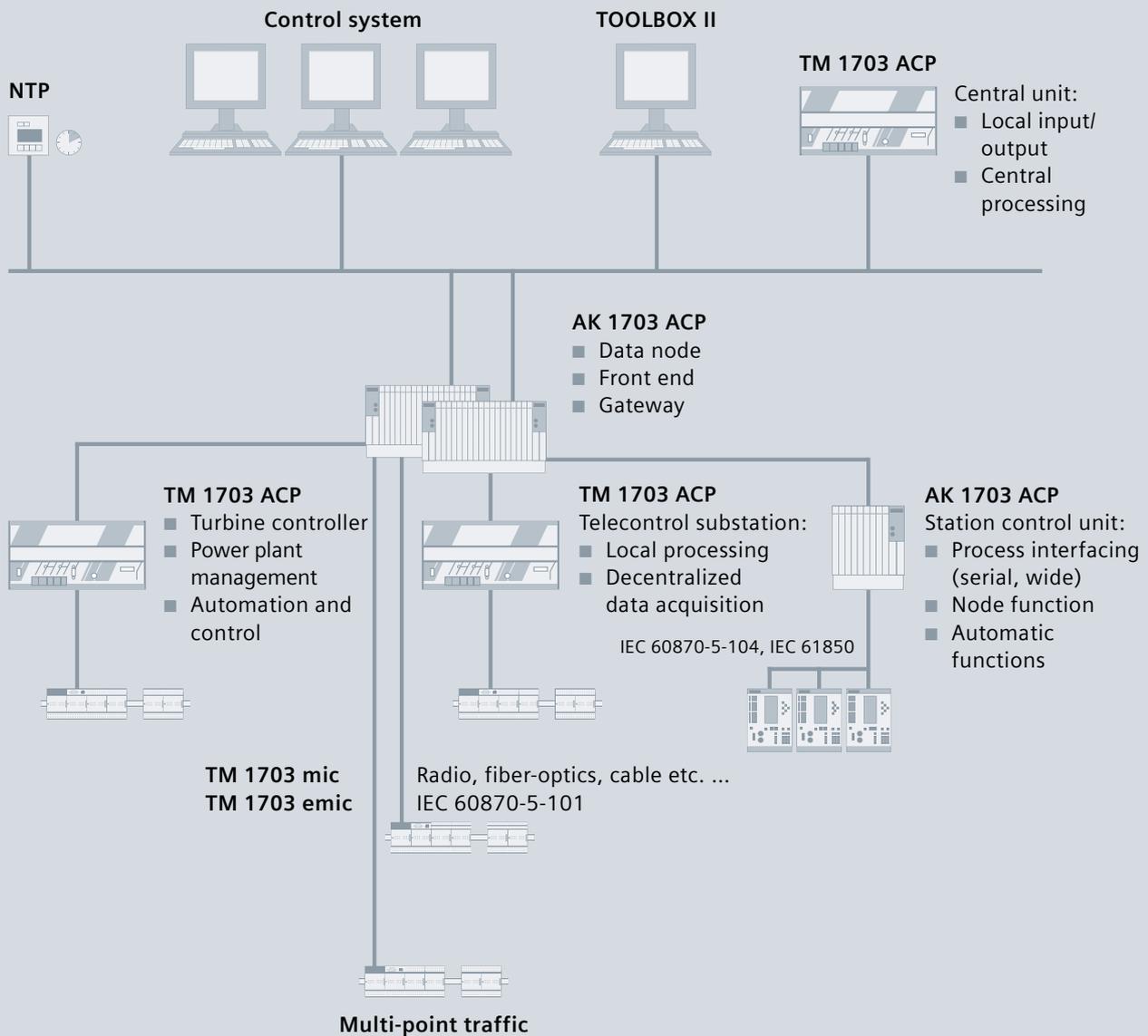
## TOOLBOX II

The integrated engineering system

Answers for infrastructure.

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# TOOLBOX II: one tool for all your needs



Configurations

# TOOLBOX II: overview of the benefits



## Integrated system

- One tool for all systems
- Third-party systems
- Standard engineering throughout
- Scalable

## Object orientation

- Straightforward, transparent engineering
- Improved engineering quality
- Increased engineering efficiency
- Lower costs for engineering

## Standard data storage throughout

- Central database
- Less work for data input
- No duplicated entries
- Fewer input errors

## Engineering of the technical process

- Reduction of initial generation time
- More rational and efficient engineering

## Functions for SICAM automation systems

- Simple system test – online and offline
- Plain-text fault diagnosis
- Remote maintenance
- Logging and simulation of telegrams
- Local and remote functions

## Functions for central control center systems

- Engineering of process variables
- Non-redundant data input (for example, transfer of the SICAM 1703 telegram address)
- Automatic generation of attributes with formulae
- Automatic generation of the text address
- Generation of the database
- Context-sensitive loading of TOOLBOX II from system display of the control center system

## Functions for PLC applications

- Completely graphical user interface
- Object-oriented
- Compliance with IEC 61131-3 standard
- Simple offline/online test

## Functions for third-party systems

- Open interface
- Import and export of engineering data
- Simple transfer of existing data
- All attributes self-definable in the customer's project

# TOOLBOX II: more performance with one tool

*Engineering today has become an important cost factor, not only in the creation of new plants but also for maintaining existing facilities and updating databases.*

*With the integrated engineering system TOOLBOX II, we offer you a comprehensive and cost-saving solution for these applications.*

## **An integrated tool**

TOOLBOX II provides you with all functions for integrated and standard engineering throughout the entire plant, including:

- Data collection, data modeling, configuration, and parameterization
- Engineering of process information for the automation and central control-room systems
- Administration of the systems and individual parameters of third-party manufacturers

TOOLBOX II is an ideal tool for plants and systems of all sizes.

## **Current operating systems supported**

In addition to Windows XP Professional and Server 2003, TOOLBOX II V 5.0 also supports the Windows Vista, Windows 7 Professional, and Windows Server 2008 R2 operating systems.

## **Object orientation: working faster and more reliably**

With the introduction of object orientation, the designer can describe actual units and equipment in the project planning process and can employ them in the engineering process as defined objects. These can, for example, be individual components like pumps and circuit-breakers, but they can also be larger units like branch feeders. In particular, when a plant is made up of a multitude of primary technical units and equipment of identical type (for example, transformer substations, hydropower plants, and pipelines), object orientation offers the potential for substantial savings.

In parallel, the error rate also drops, because by generating process-technical objects with TOOLBOX II, equipment design moves to the background. This means that designers no longer need to be concerned with a large number of individual signals. Instead, they can concentrate on their actual task, which is the engineering of the plant. In order to make full use of this advantage, the objects can be defined with absolute freedom, with no restrictions with respect to industry-specific applications.

### Server/client configuration

Work the way you want – in a team, alone, with staggered workperiods, simultaneously.

TOOLBOX II leaves all the options open to you in terms of networkability and work-sharing work modes, from single workstations to complex network solutions in which several designers work on several projects in parallel. The work-sharing function even allows a number of designers to work simultaneously on a project even if the individual TOOLBOX II PCs are not networked together. The shared databases are then merged at a later time in a simple, user-friendly manner.

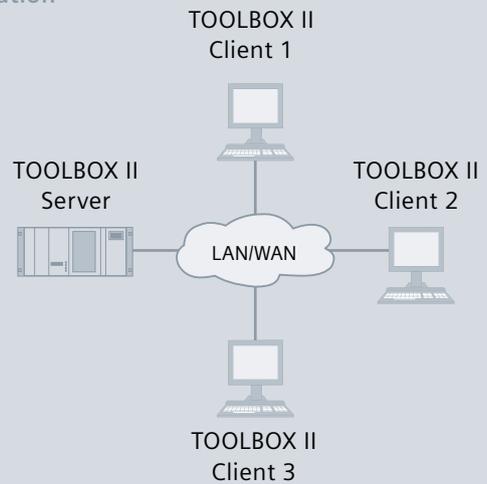
### Engineering in the web

You can also make use of TOOLBOX II's many different functions without restriction on the Internet or intranet, with the same ergonomic user interface as your local installation. The Web functions integrated in TOOLBOX II allow users to work in Internet Explorer with no familiarization necessary. For this application, TOOLBOX II does not even need to be installed locally on the control PC. All functions for SICAM 1703 run on the corresponding Windows terminal server and can be operated using a web browser.

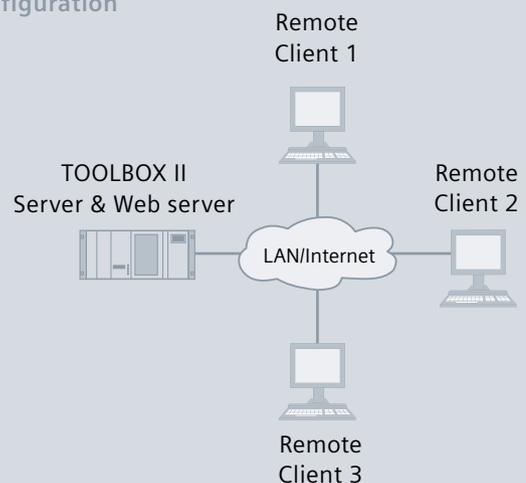
### Once entered, always up-to-date

The core element of TOOLBOX II's data management is a central database to which all TOOLBOX II tools have access and in which all information is stored. The advantage is self-evident. Once information has been entered, it is available to all employees on a project and to all tools immediately, and is kept up-to-date at all times. This reduces the error rate, avoids duplicated entries, and so cuts engineering costs.

### Server/client configuration



### Web engineering configuration



TOOLBOX II server/client configurations

### Functions for the SICAM automation systems

In a SICAM 1703 automation network, TOOLBOX II enables project planning, loading, system diagnosis, system testing, and documentation of the automation and telecontrol functions for local and remote automation units. All functions can be executed via the automation system's communication pathways (in other words, without a separate cable). This makes it a very simple matter to test the plant and to start it up. TOOLBOX II's integrated diagnostics options make it possible to locate and correct any errors quickly and reliably, thereby considerably increasing the availability of the system as a whole. In the event of an error, the detailed diagnosis gives you comprehensive plain-text information and informs you of possible causes and ways to correct them. Remote maintenance allows access to automation systems by phone, via modem, ISDN, TCP/IP, and other paths from any location whatsoever, and therefore lays the foundation for corresponding services. For data simulation purposes, telegrams of any kind can be defined in a menu-guided procedure and in this way simulated in the automation system. Logging points can be selected with graphical support in order to trace the data flow. Corresponding telegram filters ensure that only the relevant telegrams are displayed for each test.

### PLC applications

The linking and control applications are created in TOOLBOX II with CAEx plus. This efficient tool is an attractive combination of a fully graphical user interface and intuitive operation, which results in short familiarization periods and minimized expenditures for training. CAEx plus is fully integrated in TOOLBOX II and enables you to generate IEC 61131-3-compliant application programs easily and efficiently. Using the standard function plans enables fast, error-free programming with standardized application programs. The transparent, clearly organized operating structure ensures fast, efficient work that is further enhanced by a host of easy-to-use functions. Examples of these functions are the project explorer, the intuitive function plan editor, the navigator, and documentation management. The detailed online help function provides assistance at all times in case any aspects are unclear. CAEx plus also includes comprehensive and user-friendly test options. The purpose of the **offline test** is to test the application program in near-real time – regardless of the automation system. The program can then be tested with the automation system in the **online test**.

### Functions for central control-room systems

The process data points in the central control-room systems and local HMIs (like SICAM PAS CC) and their attributes can be defined and parameterized with TOOLBOX II. Attributes are taken over from the SICAM 1703 automation system without redundancy, thanks to the use of TOOLBOX II references. Among other things, that frees the designer from having to enter the telegram address for the central control-room system. The application of TOOLBOX II formulae also offers the option of automatically calculating the central control-room system's attributes, which speeds up the engineering process and cuts the error rate to a minimum. The text address is also generated automatically.

### Functions for third-party systems

The open interface to third-party systems of any kind is an important feature of TOOLBOX II. Data can be exported and third-party data imported via this interface. Exported data can be converted with any kind of program for possible automatic post-editing. Importing of third-party data can also be implemented using batch control, in other words, without actually using TOOLBOX II. In addition to storing individual attributes, signals and any higher-value objects can also be created: for example, a branch circuit, pump, or circuit breaker. This also makes it very easy to transfer old data into TOOLBOX II. It is also possible to define and administer third-party system parameters as well as general parameters. The designer can personally define the attributes of the customer project, for example, the parameters of third-party manufacturers. Aside from all TOOLBOX II standard processing operations, these self-defined parameters can also be used, for example, for processing dimensions, for references and formulae, and for work-sharing engineering.

TOOLBOX II (Version 5.0)	6	M	F	7	0	5	0	-	-	A	0							
<b>License</b>																		
Single site (LIGHT)											0							
Single site (FULL)											1							
Server											3							
Update and upgrade											4							
Special											6							
<b>Package</b>																		
No package											A							
TOOLBOX II – Standard (=EM II & PSR II & OPM II & CAEx plus)											B							
TOOLBOX II – Basic (=EM II & PSR II & OPM II)											C							
TOOLBOX II – Administration (=EM II)											D							
TOOLBOX II – Maintenance (=EM II & PSR II)											M							
Update LIGHT											L							
Update FULL											F							
Upgrade											G							
<b>Add-on packages</b>																		
No add-on											A							
TBII Live update											L							
<b>TBII_SERVER/TBII Update_SERVER</b>																		
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<b>TBII_WEB-Basic/TBII_Update_WEB</b>																		
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<b>TOOLSET upgrade</b>																		
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TBII_EM II										A	E							
TBII_PSR II										A	S							
TBII_OPM II										A	P							
TBII_CAEx plus										A	C							
TBII_CAEx II											X							
TBII_Upgrade_EM II Light → Full										G	E							
TBII_Upgrade_PSR II Light → Full										G	S							
TBII_Upgrade_OPM II Light → Full										G	P							
TBII_Upgrade_CAEx plus Light → Full										G	C							
TBII_Upgrade_CAEx II Light → Full										G	X							
<b>Extra</b>																		
TBII Dongle Exchange CAEx plus	6	M	F	7	0	0	0	-	5	H	A	0	0	-	0	A	C	0
TBII Dongle Exchange CAEx II	6	M	F	7	0	0	0	-	5	H	A	0	0	-	0	A	X	0

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