

## News of SIMATIC iMap V3.0

Following the successful implementation of more than 100 projects all over the world with **Component Based Automation (CBA)**, the new version 3.0 of SIMATIC iMap is now available. The salient features of the new version 3.0 are improved machine-to-machine communication and modularization of systems in which a combination of centralized and distributed configurations is required.

While the predecessor versions supported a 1:1 relation between function and device (one SW function always corresponded to one automation or field device), version 3.0 of SIMATIC iMap supports the creation of components with several SW functions on one device (multi-function components). For instance, in centralized configurations it is now possible to run several SW functions on one central CPU and technologically interconnect the latter in SIMATIC iMap. This functionality is therefore called "n on 1", because several functions can run on one device (at present, this function is only supported by the CPU 319-3 PN/DP; other CPUs will follow). The advantages of multi-function components are: When using centralized CPUs, the user is not forced to define a single SW function, but instead can subdivide the latter into several individual subfunctions. The SW functions are more compact and easier to handle. They can be interconnected either inside the device, or with SW functions of other devices.

Version 3.0 is rounded off by additional functions, such as graphically structured representation of the overall system, downloading of several components from a dialog (avoids individual pop-up dialogs with interrogations during the download) as well as other innovative functions.



component based

# automation

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## Overview of the most important features of version 3.0:

- Several functions on one device (based on the CPU 319-3 PN/DP)
- More user-friendly navigation and chart overview by means of the new “Chart view”
- More accurate diagnostics on causes of faults, including possible remedies
- Support of PROFINET components with PROFINET IO section
- Support of the CPU 319-3 PN/DP
- Support of proxy devices with several PROFIBUS lines (based on the CPU 319-3 PN/DP)
- Support of WinCC flexible panels within the component
- Hiding or unhiding of individual connections to improve the overview
- Loading only the changed blocks to the CPU to retain process data
- Simplified loading of several CPUs, without pop-up dialogs
- Improved project documentation in HTML format and improved printing function with cross references
- Documentation and desktop languages now also in Italian, French and Spanish
- Support of additional operating systems

## Details of the new features of version 3.0:

### Several functions on one device (based on the CPU 319-3 PN/DP)

SIMATIC iMap version 3.0 supports the creation of components with several SW functions on one device (multi-function components). For instance, in centralized configurations it is now possible to run several SW functions on one central CPU and technologically interconnect the latter in SIMATIC iMap. This functionality is therefore called “n on 1”, because several functions can run on one device (at present, this function is only supported by the CPU 319-3 PN/DP; other CPUs will follow). The advantages of “n on 1”: When using centralized CPUs, the user is not forced to define a single SW function, but can instead subdivide the latter into several individual subfunctions. This is of special advantage for singleton applications. The SW functions are more compact and easier to handle. They can be interconnected either inside the device, or with SW functions of other devices. The SIMATIC iMap STEP 7 AddOn expansion package has been suitably enhanced for the “n on 1” functionality and is supplied with SIMATIC iMap V3.0 as well as on the next STEP 7 CD ROM.

### More user-friendly navigation and chart overview by means of the new “Chart view”

One of the most important new features of SIMATIC iMap 3.0 is the chart view. This new view now permits the complete plant to be displayed graphically and to structure it by means of simple Drag&Drop. The user can add charts and allocate the used SW functions via Drag&Drop. In the case of a fault the user can visually detect faulty functions and navigate quickly to the associated chart. General actions, such as copying of complete plant sections, deletion or addition of SW functions, as well as navigation through the charts, can be conveniently performed from this superordinated view.

### More accurate diagnostics on causes of faults, including possible remedies

In SIMATIC iMap 3.0 all error messages have been supplemented by possible causes and remedies. This enables the user to navigate directly from the error message in the diagnostics window to the different editors and levels, for instance. In the plant view he can earmark critical interconnections (e.g. in bold letters) and thus identify them more quickly, or monitor them more easily. A read-only mode (can be set via password) enables maintenance personnel to diagnose the plant without making inadvertent changes.

### Support of PROFINET components with PROFINET IO section

In SIMATIC iMap version 3.0, PROFINET components can include PROFINET IO devices (PROFINET IO devices within the component). Since the allocation of IP addresses is normally only done when the components are used, SIMATIC iMap 3.0 supports the user by an option to allocate individual IP addresses also for the included PROFINET IO devices.

### Support of the CPU 319-3 PN/DP

The CPU 319-3 PN/DP is the first module to support multi-function components. The runtime expansions (PROFINET CBA Runtime V2.2) have already been tested with SIMATIC iMap 3.0, so that this functionality is guaranteed when the CPU 319-3 PN/DP is released.

### Support of proxy devices with several PROFIBUS lines (based on the CPU 319-3 PN/DP)

As from version 3.0 onwards, SIMATIC iMap supports multiple PROFIBUS lines (DP master with proxy functionality). This enables PROFIBUS devices to be coupled to both PROFIBUS lines of the CPU 319-3 PN/DP, for instance. This is of particular advantage in the case of large plants where the CPU 319-3 PN/DP is used as PROFINET CBA proxy.

### Support of WinCC flexible panels within the component

Up to now panels within a PROFINET component were supported already. However, they had to be configured with ProTool/Pro. Version 3.0 now also supports panels configured with WinCC flexible (version 2005 SP1 and higher). These panels must be configured as part of the component when the components are created and can be linked via PROFIBUS or via Ethernet, depending on the panel.

### Hiding or unhiding of individual connections to improve the overview

Version 3.0 of SIMATIC iMap takes account of many user suggestions that came up during the implementation of plants. One example here is the possibility to hide or unhide individual connections from the SW function interfaces. By hiding certain connections the user gets a better overview in the plant view. Hidden connections are not displayed on the SW functions. Renewed unhiding is possible at any time directly on the SW function.

#### Loading only the changed blocks to the CPU to retain process data

Many users have requested that when downloading the user program, process data which are usually contained in data blocks should not be overwritten. SIMATIC iMap V3.0 takes account of this request and a change loading feature has been introduced for the program.

#### Simplified loading of several CPUs, without pop-up dialogs

SIMATIC iMap V3.0 includes many functions that enable a reduction of the engineering time. One example here is downloading to several devices via a common download dialog. In version 2.0 downloading of each individual function had to be acknowledged in a pop-up dialog; Version 3.0 now enables loading of several devices from one list.

#### Improved project documentation in HTML format and improved printing function with cross references

As was the case with SIMATIC iMap V2.0 already, version 3.0 can create the complete documentation of the configured plant by means of a menu command. Both the formatting and the printing function have been modified for the purpose of a clearer overview and better navigation. The automatically generated table of contents includes cross-references to improve the overview.

#### Documentation and desktop languages now also in Italian, French and Spanish

SIMATIC iMap is now available in five languages: German, English and now also: Italian, French and Spanish.

#### Support of additional operating systems

In addition to Windows 2000 Professional and Windows XP Professional, SIMATIC iMap V3.0 now also supports Windows 2003 Server.

In addition to the features described above, many other details of SIMATIC iMap V3.0 have also been improved. The target remains unchanged:

**Reduction of time and expenses for the engineering of modular machines and systems, and flexible machine-to-machine communication along the production line.**

