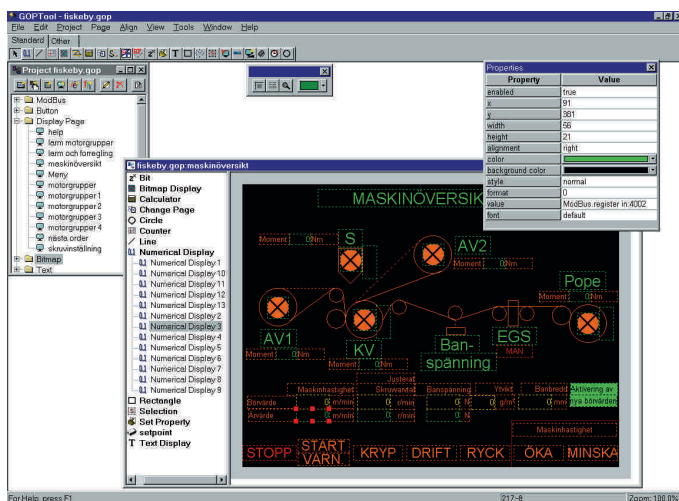


# GOP Configuration Software

## GOP Tool



GOP Tool Software

**GOPTool** is Genera's effective configuration tool for GOP panels. It allows easy installation and detailed customisation of the panels. Changes and necessary adaptations can be implemented fast and efficiently.

### System software

All panels have a fixed bootloader to download the system software and user application via a standard RS-232 communication port on a PC. The system software uses PharLap TNT Embedded Toolsuite real-time operating system. The software design enables the user to change and upgrade configuration whenever necessary. The cost for adding new features is low and in case that current software is not able to fulfil customers' specific requirements, Genera will adapt the software accordingly.

### User applications

GOP panel applications are designed using GopTool software in Windows '95/'98, NT or Windows 2000 operating system. The user designs the display layouts and defines operations, communication and logic. An ingenious simulation program facilitates testing. After that, configuration can be downloaded to the panel.

### Design process

For each configuration, the user designs particular display pages. On those pages, each element – called component – represents a specific feature of the panel. The graphical components enable the user to draw lines, circles and bitmap pictures or write text. The arithmetic and logical components such as calculators and multiplexers further refine the functionality of the panel.

Communication, screen saver and other functions are controlled by specific components. The user simply selects the corresponding component type from the toolbar and drops it in the design view.

## Communication

Modbus RTU is currently the supported communication protocol both in slave and master modes. RS-485, RS-232 and RS-422 are available alternatives. Profibus interface is available as an option.

## Properties and outputs

Every component has properties and many of them also have outputs

The specific behaviour and appearance of each component depend on their properties. The individual sets of properties for each component can be set to fixed values or connected to dataflows from other components or communication ports. The update of variable property values is event driven, so only the change of value in output causes an update of connected components. This has proved to be much more efficient than the traditional cyclic polling with a fixed interval.

## Designing pages

The user can draw, select, move or resize graphical components directly on the display pages. All available components, both graphical and non-graphical, can be selected from component list window. The user can conveniently view and set property values of currently selected components in the property-window. The logic and dynamic operations are achieved by connecting properties to certain outputs. This graphical method allows the creation of complicated operations without a single line of code.

## Libraries

All components are designed as simple

building blocks that only perform one function. Therefore larger parts of the design can be combined into libraries. Library components are more complex design units. They speed up and facilitate the design process. More sophisticated functions must only be created once, and can be reused through the library function wherever necessary.

## Support for International use

User application can have any number of languages, but only three of them can be used in the panel at the time. The user can then easily switch between those three, either directly on the panel or via communication ports.

The normal version of configuration software supports all Latin and Cyrillic characters. For languages using graphic characters such as Japanese or Chinese, a Special Unicode-version of GOP Tool is available without extra cost. The Unicode-version requires Windows NT or Windows 2000 operating system.

## Simulation

Before downloading the application to panel, the user can check and verify proper functioning of the operations in a simulated environment. GOP simulator is basically the system software converted into Windows program. The simulator window shows the same buttons and layout as the real panel. Communication can be simulated, too. Simulation scripts simplify repeated testing. After possible adaptations, the user simply runs the test script to verify proper function of the updates.

## Ordering reference

10112 GOPTool Configuration Software



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