GALILEO 10
An interactive visualization tool
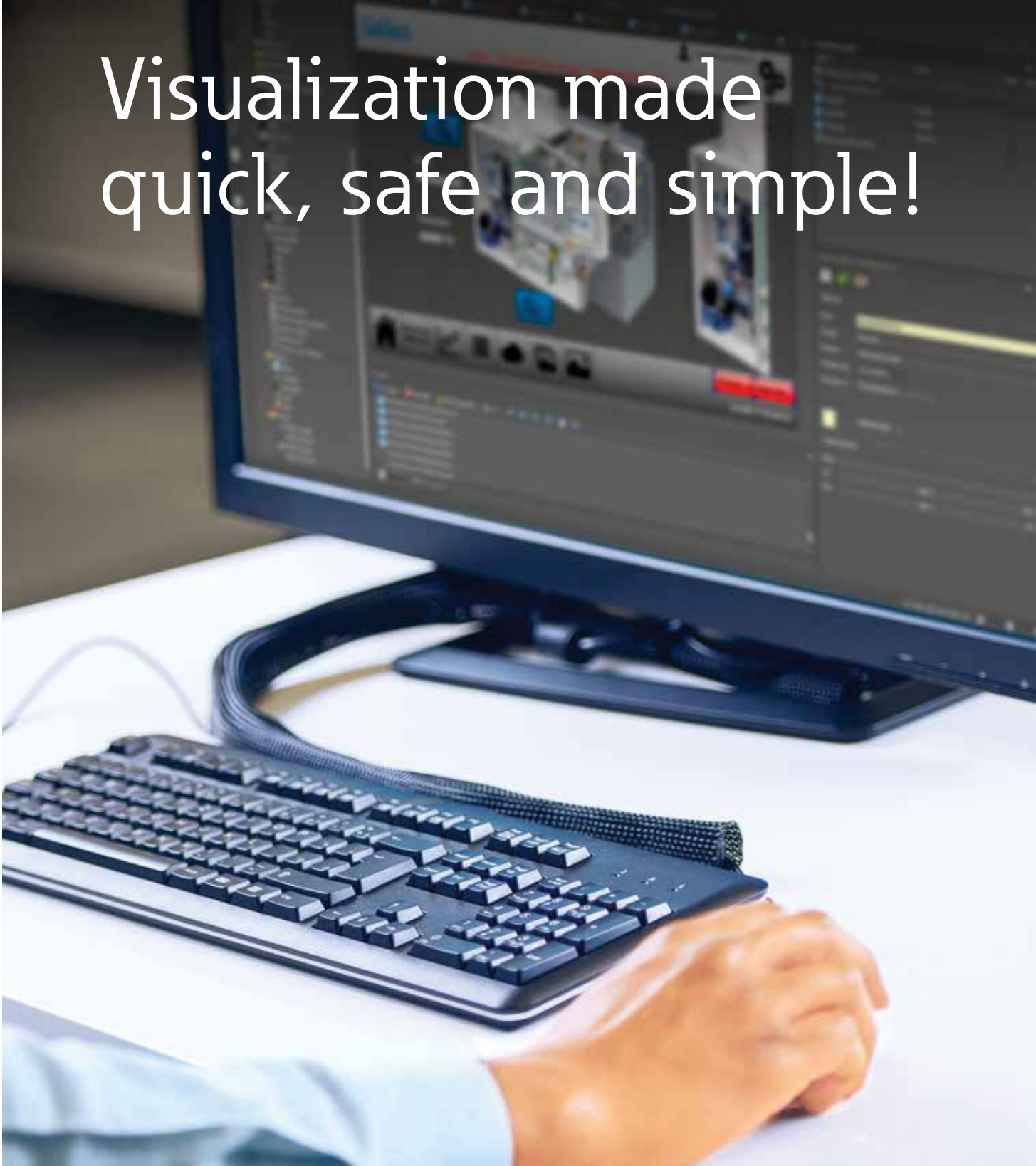www.eaton.eu/galileo

Visualization made quick, safe and simple!

EAT•N

Powering Business Worldwide

Visualization
taken to a whole new level

GALILEO 10 – with the new version of Eaton's established visualization software, creating HTML-based web visualizations is easy and requires no prior programming knowledge. One of the main strengths of GALILEO is that it is not only intuitive and easy to use, but also offers a powerful project planning environment that supports both on-site and mobile machine operation.

GALILEO is designed to meet the needs of any industry and has seen a continuous series of improvements and enhancements ever since its first version came out in 1995. The guiding principle behind all this? Our customers' needs.

The result: a custom-tailored tool for the international machine-building industry.

Efficient programming made easy, thanks to the user-friendly visualization interface provided by the latest version of GALILEO 10. One of the special features of GALILEO 10 is the integrated web visualization. This feature makes it possible to access any machine remotely via mobile devices, such as tablets and smartphones.

With its extensive catalog of features, GALILEO revolutionizes the entire life cycle of a machine or system, from **the project planning phase** all the way through **commissioning, operation** and **maintenance**!
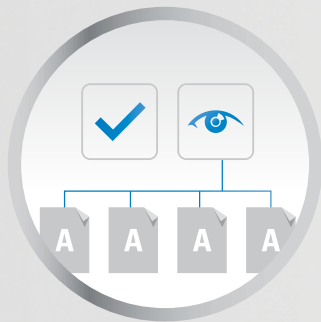
On the Eaton YouTube channel, you will find video tutorials that will guide you through the most important features of GALILEO 10 in simple steps:

① Engineering

Design and set up your projects more quickly, efficiently, and securely

Styles

Styles ensure that objects will have a standardized appearance throughout your entire project.

If you choose to change the attributes for an object, the changes you make will be applied to every single object using the same style.

The ability to reuse object groups

The ability to reuse a group of objects in an advanced subscreen makes it possible to arrange similar visualization objects quickly and in a clearly laid out manner. Moreover, it ensures that changes to a data type and to an advanced screen will be applied to all the corresponding instances.

In addition to this, you can create your own data types, and all it takes to assign variables to objects is to conveniently drag and drop them accordingly.

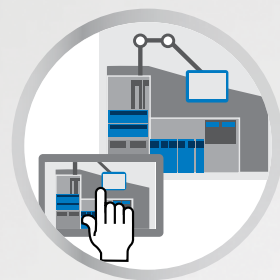### Automatic object recognition

Automatic object recognition makes it easy to group, position, and align all objects.

In addition, superimposed objects can also be shown.

Sidebar

When an object is selected, its most important attributes will always be shown on a sidebar – this not only makes things easily manageable, but also means that you will only need a few mouse clicks to configure an object.

By selecting multiple objects, you can make changes easily and quickly: Simply modify the properties for the selected objects and the changes will be applied to all of them.

Web visualization

The integrated web function in GALILEO allows you to create extensive web visualizations with one simple click, even without any prior HTML5 knowledge.

The web visualization can be freely combined with the standard visualization.

Through mobile devices, such as tablets or smartphones, access to the machine is therefore possible from practically anywhere.

Communications

Thanks to the comprehensive range of available communication protocols, GALILEO can be connected to all standard types of controllers. The variables for each type of controller can be easily imported, for example in XML format.

Tag table

With the "tag table" function, all relevant objects and variables, including their properties, can be conveniently displayed via a concise table. This allows users to detect discrepancies at a glance and to update and supplement any number of elements directly via the "tag table" function, instead of retrieving and changing each data set individually. The result: greater efficiency and quality.

Intelligent and powerful search and sorting functions

These functions make it possible to run quick searches anywhere where screens, variables, bitmaps, or scripts are used in your project. The corresponding results will be shown in a clearly laid out list, and all you will need to do to access the result you want is to double-click on it.

Quick access menu

The full list of special functions for each object can be displayed in a single menu. If one of these special functions is selected, a corresponding button will automatically be added to the screen.

Object Manager

The Object Manager can be used to get a quick overview of all the objects being used on a screen.

It also features a variety of functionalities, including sorting along the Z-axis, showing superimposed objects, anchoring and hiding objects, and displaying selected objects in a synchronized manner on the screen.
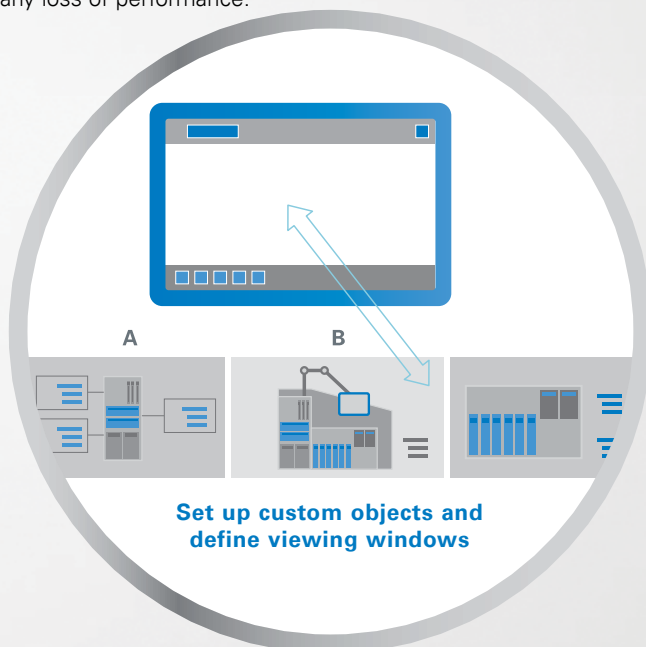
User Controls

In GALILEO, users are able to create custom objects (so-called UserControls). Components from various custom objects can be incorporated into and reused during the creation of new objects.

This modular approach allows you to implement even complex projects quickly and effortlessly.

Containers

This revolutionary approach makes it possible to quickly display a large number of similar visualization objects in an easily manageable format.

First, you use the menus to configure a custom object – which can be wider or taller than the touchscreen – or several individual sub-screens.
Then, you can define the viewing window through which these sub-screens will scroll at runtime.

Transparent objects

Many objects can also be displayed with transparency, making it possible, for instance, to show the alarm list as a semi-transparent image at runtime.

Graph functionality

For the graph visualization object, the X-axis can also be used as a measured value axis (XY scatter). Should the relevant values change, the graph will automatically adjust, thanks to the auto-scale function. In addition, the "show/hide" function makes it possible to display or hide various components within the graph, as required.

The display of data has also been improved, thanks to the addition of a second Y-axis, the practical auto-scale function and many new types of graphs.

Button functionalities

A bitmap or a color can be used for each button's background, while a bitmap or text can be used for the foreground.

All shadows and color gradients remain the same when zooming. In addition, the software will run a language-specific check to see whether a text can be placed within a button. If there is not enough space, an indication to this effect will be shown.

Importing tags

This applies to CODESYS 2 and CODESYS 3, as well as to controllers produced by other manufacturers.

Icon library

For project planning purposes, GALILEO offers a comprehensive, integrated icon library.

HTML functionality

The embedded HTML functionality makes it easy for users to incorporate HTML documents into the visualization, without any loss of performance.

Set up custom objects and define viewing windows

② Concept

Easily copy your projects and customize them as needed

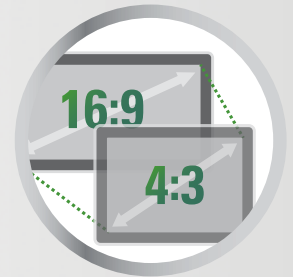### Standardized concepts

Copying between projects

It used to be that copying elements from project to project meant having to create everything all over again. Well, no more: a dedicated dialog box makes it possible to easily copy variables, objects, bitmaps, and styles and transfer them between projects.

Customization

Screen size changes

With GALILEO 10, you can switch between 4:3 and 16:9 aspect ratios for your projects.

16:9 4:3

Flexible installation configurations

All XV devices can be installed in portrait or landscape mode, ensuring that they will match your space requirements and accommodate your project's controls perfectly.

The XV300 series features devices for traditional front mounting, as well as devices that can be mounted from the back.

Capacitive glass touchscreen versions are designed to meet the strictest hygiene requirements in the industry.
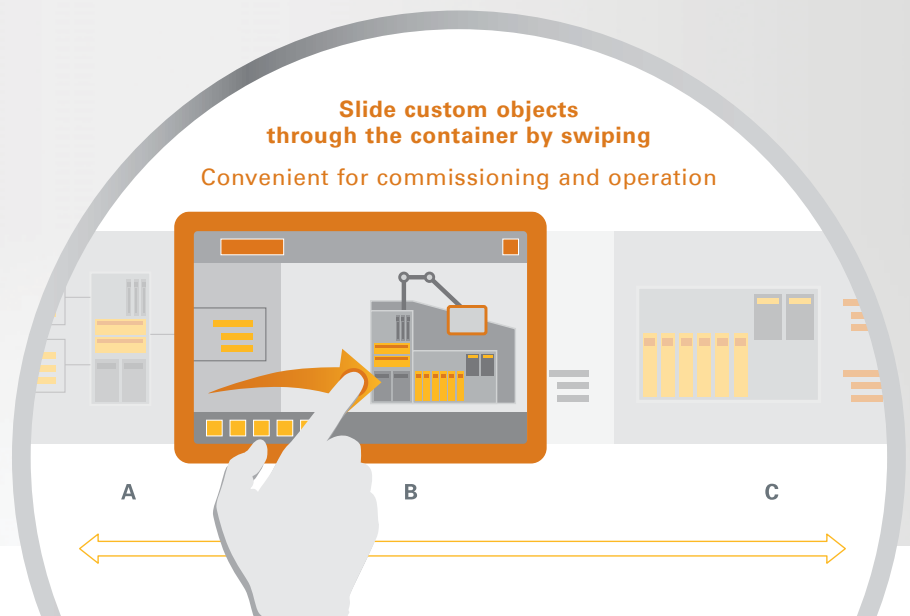
③ Commissioning

Commission your projects smoothly and reliably

Project change tracking

XML data formats ensure that project changes can be easily tracked with standard comparison tools.

Project simulation

The convenient Project Inspector feature can be used to run project tests. This ensures that every single change can be tested immediately on the computer (runtime preview), significantly reducing the amount of time involved in commissioning.

Slide custom objects through the container by swiping

Convenient for commissioning and operation

A   B   C

4 Operations

Operate intuitively, manage smoothly

User logger

The software can log and save user actions, as well as any changes that a user makes to values, in the form of a CSV file. This ensures that user input can be tracked in order to provide protection against tampering.

Gesture-based GUI

The device can be conveniently and intuitively operated with swipe, scroll and zoom gestures. In other words, it provides a level of comfort and convenience that has long been the norm with smartphones and tablets and that will now become the standard in industrial applications.
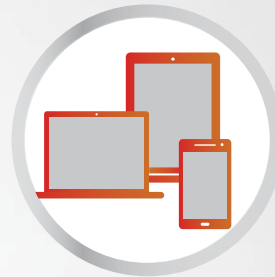
Just like in a PowerPoint presentation, screen pages can be animated. For instance, a new screen can "fly in" from above or from the side.

Alarm manager

Alarm messages are shown in an eye-catching red color on a partially transparent area on the monitor, can have one or more lines, and can include a variable such as a value or text. On top of this, the Alarm Manager function will add a timestamp to errors, assign them to one of three alarm groups, and generate an error history.

User Management

The user management function is designed to make your processes even more secure. Even at runtime, device operators will be able to create and delete users, as well as to assign them to previously defined groups.

And in order to improve security even further, the system can be configured to automatically log out users and to monitor the system for invalid login attempts. Moreover, it comes with a password history function that enhances the ability to monitor password changes.

Multi-session web operation

The web visualizations can be displayed on up to five devices simultaneously. At the same time, the format resolution and content can be individually adjusted on the screen of each of these devices.

5 Maintenance

Streamline maintenance – with optimal assistance

Context-sensitive help manager

The convenient help system is designed to assist you with images and texts. For example, you can use it to add a marking to a maintenance screen. In addition, the help function for variables provides device operators with a list of variables at runtime, as well as with the text corresponding to the selected variable(s).

Custom-tailored and designed to accommodate your specific programming needs! Traditional controls, modern gesture-based operation – anything is possible.

GALILEO 10 runs on any device and can be quickly and easily configured anywhere - whether you are using a touch panel or an industrial PC of the XV or XP series.

At Eaton, we work hard to make sure you never have to sacrifice efficiency!

XV300 Family

· Capacitive touch panels
  in plastic enclosures
· Flush mounting and rear|
  mounting versions
· 7" and 10" devices with
  high-resolution 16:9 screen

XP500 Family

· Capacitive multi-touch panels
· Industrial panel PCs in
  die-cast aluminum enclosures
· 10.1", 15.6", 21.5"
  in 16:9 format

XV100 Family

· Resistive touch panel:
  - in plastic enclosure
    (3.5", 5.7", 7")
  - in metal enclosure with
    aluminum bezel
    (5.7", 8.4", 10.4")
  - in metal enclosure for
    rear mounting
    (5.7", 7")

XV400 Family

· Infrared and resistive
  touchscreen panels in
  a metal housing
· 5.7", 8.4", 10.4", 12.1", 15"
· Plug-in communications cards

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Our focus is on delivering the right solution for the application. But, decision makers demand more than just innovative products. They turn to Eaton for an unwavering commitment to personal support that makes customer success a top priority. For more information, visit **www.eaton.eu**

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