

easySoft V8.31



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Original Release Notes

is the German-language edition of this document.

Translation of the original Release Notes

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1 easySoft 8

1.1 System requirements

1 easySoft 8

1.1 System requirements

Hardware

- Recommended minimum resolution of 1280 x 1024 pixels.

Software

PC with one of the following operating systems:

- Windows 10
- Windows 11

At least Windows 10 1903 (May 2019 Update) is required to use the visualization.

If a previous version of Windows 10 is still in use, .NET Framework 4.8 must be installed manually.

[Microsoft .NET Framework 4.8 Offline-Installer für Windows - Microsoft-Support](#)

1 easySoft 8

1.2 Installation instructions

1.2 Installation instructions

To install the program, you must have administrator rights, user rights are not sufficient! Only with administrator rights can the setup program correctly install the required system components on your system.

If errors occur during the installation which refer to the fact that files or directories cannot be copied or created, please check whether your user account has administrator rights.

- Download the full version of the programming software easySoft 8 from the Download Center - Software
 - Download Center - Software
<http://www.eaton.com/software>
- Select the product group easySoft and the latest product version.
- Click on the latest product version for download.
- Save the easySoftV8xx_setup.exe on your PC.
- Start easySoftV8xx_setup.exe on your PC.
- Follow the instructions of the easySoft setup program on the screen.

1.3 easySoft 8 programming software license

1.3 easySoft 8 programming software license

The easySoft 8 programming software is available for free. However, you must purchase a software license to activate the following software functions:

- Online function
You will not be able to load any programs onto a connected device (no online function).
- Card manager
There will not be any card management functions available for external storage devices.

Download the full version of the easySoft 8 program from the Software Download Center.

<http://www.eaton.eu/software>

You can order a programming software license through your supplier or through the EATON online catalog EASYSOFT-SWLIC, article no. 197226.

<http://www.eaton.eu/ecat>

You will receive a license product certificate containing a 36-digit certificate number.

Open the following website:

<http://www.eaton.eu/license>

Now enter the 36-digit certificate number from your license product certificate.

A dialog box will appear. For your own security, enter the license owner information into this dialog box.

Once you enter all your information, a 24-digit license key will be sent to the e-mail address you provided.

The e-mail will contain the following information:

- License type: SW-EASYSOFT
- License product certificate number: 7-digit number for your certificate
- License key: Automatically generated 24-digit code
- Information regarding the owner's registration

During the easySoft 8 installation process, enter the 24-digit license key.

If you have already purchased a license key for easySoft 7, you can continue to use it for easySoft 8.

1 easySoft 8

1.4 Adding a license later

1.4 Adding a license later

If you installed the demo version of easySoft 8, you could add a valid license key later to unlock the full version. How to get the license key is described in chapter 1.3 easySoft 8 programming software license.

- In easySoft 8, select the License menu item in the “?” menu.
- A dialog box for entering the license key will appear.
- Now enter the 24-digit license key that you received by e-mail.
- Click on Check license.
- After a successful check, the dialog can be closed with OK. All program parts requiring a license are now unlocked.

Once the check is completed successfully, close the dialog box by clicking on OK. All program functions, which require a license, will now be unlocked.

1.5 Legal disclaimer

All the information in this release notes has been prepared to the best of our knowledge and in accordance with the state of the art. However, this does not exclude the possibility of there being errors or inaccuracies. We assume no liability for the correctness and completeness of this information. In particular, this information does not guarantee any particular properties.

It is assumed that the user of this manual is thoroughly familiar with the information found in the manuals for incorporating the control relay into automation processes. Hazards posed by the control relay cannot be ruled out if the safety instructions are not observed – especially if the control relay is installed and commissioned by inadequately qualified personnel or if it is used improperly. Eaton assumes no liability for any damages resulting from cases such as these.

1.6 New hardware and its implications

1.6 New hardware and its implications

The hardware of the easyE4 base devices was upgraded to device version 08 in March 2023. The hardware version is indicated on the left-hand side of the easyE4 housing directly below the "Moeller Series" label. The hardware change required a change to the easySoft and the device firmware.

Please note the following important information:

- New device version (generation 08)
 - The housing and the connections of the hardware are unchanged.
 - The new hardware requires a new firmware from V2.00 and easySoft 8.
- New firmware version V2.00
 - All base devices from device version 08 have at least this version pre-installed.
 - This firmware version is intended exclusively for devices from device version 08.
- New easySoft V8.00
 - With easySoft 8, devices prior to device version 08 can still be programmed. Functional extensions will be provided from firmware V2.00 only.
 - Existing easyE4 projects or programs that were created for base devices with firmware older than V2.00 can still be used with easySoft 8 without modifications and within devices from firmware V2.00 and higher.
 - The existing easySoft 7 license can be reused for easySoft 8, too.
 - Parallel installation and use of easySoft 7 and easySoft 8 is possible.

1 easySoft 8

1.7 easySoft V8.31 version changes

1.7 easySoft V8.31 version changes

1.7.1 New Functions

1.7.1.1 Project view:

Modbus RTU slave module

The lower limit of 'Timeout for Server Response' has been reduced to 100 ms. Please do not open projects with this setting using easySoft V8.30, as an automatic correction to 1000 ms will occur! #47800

1.7.1.2 Programming view:

Function block MU

The lower limit of 'Response Timeout' has been reduced to 100 ms. Please do not open projects with this setting using easySoft V8.30, as an automatic correction to 1000 ms will occur! #47800

1.7.1.3 easyE4 Web-Visu editor:

- New keyboard shortcut ESC key to deselect the currently selected widget. #48337
- New predefined resolutions in the project settings for web panel Eaton XH303:
 - Eaton XH303 web panel 7" (XH-303-70-A10-A00-2B): 1024x600
 - Eaton XH303 web panel 10" (XH-303-10-A10-A00-2B): 1280x800
 - Eaton XH303 web panel 15" (XH-303-15-A10-A00-2B): 1366x768

1.7.2 Important modifications

1.7.2.1 Programming view:

ST Programming

The plausibility check now reports the assignment of entire FB instances, such as C02 := C01, as an unsupported language element. #47762

Write access on SN operands is possible again. #47778

In editor and status display, line numbers are correctly shown after zooming in or out. #47872

User function blocks

An user function block can be closed even if other user function blocks are open and unsaved changes are present. #47998

After upgrading the firmware version within user function block configuration, it will no longer be displayed for devices with an older firmware version. #48093

It is now possible to insert manufacturer function blocks into an ST user function block if the main program is written in LD or FBD. #48110

A device can now be deleted in the project even if an user function block contains unsaved changes. #48121

1.7 easySoft V8.31 version changes

Unsaved changes to user function blocks are now prevented from being included in program transfers, ensuring that user function blocks can still be opened later without an unexpected password prompt. #48274 #48208 #48354

1.7.2.2 Simulation view:

In the Operand window + oscilloscope, it is now possible to set the value of N markers during simulation. #47764

In simulation, state display values are now shown immediately after opening the user function block. #47886

In the RTD simulation, values for ID operands can now be changed. The "Break" logic for associated variables is now generally considered. #48192

1.7.2.3 Communication view:**Program transfer PC => Device**

Program transfer to a NET device is now canceled again if the device selection in the dialog is canceled. #48275

Program compare PC = Device?

The disabled system setting "Comments + Notes store in the device" is now considered during program comparison. #47989

Communication view of easyRTD Advanced

If the IP address of the RTD device changes after a program transfer, it is now considered during the start of Remote Display. #48001

Firmware version V1.2.2.0 is required to use the Remote Display function; otherwise, the connection will be prematurely terminated if a connection to an easyE4 already exists. #47989

Communication view of easyE4

If an easyE4 contains a Web-Visu in the project, it is now possible to switch directly from communication view to Web-Visu view. #47889

1.7.2.4 easyE4 Web-Visu editor:

- Improved performance when using embedded devices such as web panels #48216
- Improved input of custom resolutions #48218

1.7.2.5 Visualization view of RTD Advanced:**Screen editor**

Copying screen elements from one screen to another screen of the same device is now supported. #47826

In the mask editor, enlarging an element by one pixel using the SHIFT+CURSOR key combination works again. A complete list of all key combinations can be found in the help appendix. #47877

1 easySoft 8

1.8 easySoft V8.30 version changes

1.8 easySoft V8.30 version changes

1.8.1 New Functions

Support of new easyE4 firmware version 2.30;

starting from this version, the following feature enhancements are available:

- Extension of the maximum remanent data size to 1024 bytes
- Diagnostic marker ID21 "Date and time is invalid"

- FB AR operating modes Modulo MOD and Potentiator POW
- Up to 8 data logger function blocks possible in one program (FB DL1...DL8)
- New FB DL options for controlling the recording interval

- Enable/disable cyclic AWS data exchange via bit marker
- Support for colon in AWS ThingName,
Support for comma, period, @, and = in AWS PolicyName
- New AWS option "Allow firmware update via cloud"

- Modbus TCP server port freely selectable,
Write protection for markers and NET markers can be set
- Up to 16 different Modbus TCP modules in client mode possible (previously 4)

- Extensions in Structured Text:
 - Simplified SET and RESET instruction with S= and R=
 - CONTINUE within loops
 - Semicolon optional after END_IF, END_CASE, END_WHILE, END_REPEAT, END_FOR
 - Line number display in the editor can be turned on and off
 - Symbolic programming in the main program for operands I, Q, M, MB, MW, MD, IA, QA

Support of new easyRTD Advanced firmware version 1.2.0;

Starting from this version, the following feature enhancements are available:

- System option for temporarily disabling the password protection of the easyProtocol interface
- Screen element „Push button“
- Option "Aspect ratio" for the screen element "Bitmap";
subsequent replacement of the graphic supported
- Simulation of the visualization within easySoft
- Remote display function in online mode

easyE4 Web-Visu editor

- New display modes for the image widget:
Always visible or conditionally visible, dependent on a Boolean operand such as a marker bit M
- Bit Display: for displaying a Boolean operand
- Multiple Images: for displaying an image from a list of images depending on an operand such as a marker word MW
- New clipboard for copying and pasting one or more widgets between two pages or two target devices

1.8 easySoft V8.30 version changes

- New keyboard shortcuts for the following actions:
Ctrl+C: Copy to clipboard
Ctrl+V: Paste from clipboard
Del: Delete one or more widgets
Arrow keys: Move one or more selected widgets
- Page background color: In the settings of each page, a background color can now be specified for the page.

For further information, please refer to the manual or easySoft help.

1 easySoft 8

1.8 easySoft V8.30 version changes

1.8.2 Important modifications

1.8.2.1 Changed E80 file format:

Projects that have been created with previous easySoft versions can be opened and processed with V8.30. Projects that have been stored with easySoft V8.30 cannot be opened with previous versions anymore!

1.8.2.2 New function step of User function blocks:

User function blocks that have been created with previous easySoft versions can be opened, edited and processed with V8.30.

User function blocks with setting "From firmware version 2.30" can be processed in easySoft V8.30 only. User function blocks with setting "From firmware version 2.25" can be processed in easySoft V8.25, too.

1.8.2.3 Programming view:

EDP Programming

Function "Go to" is supported again in Function block diagram. #47214

The "Add rung" function can once again be accessed via keyboard shortcut Ctrl+I. #46705

ST Programming

Syntax error messages in the main program are included in the protocol even when interrupt or user blocks are used.

If interrupt function blocks are not present in ascending order, it is now ensured that all interrupt routines are checked for plausibility. #47203

In the cross-reference list for ST programs, simultaneous read and write access to an operand is now listed in separate entries. #46102

Configuration of function block D

For the elements Message text, Rolling text and Message text selection a notification is shown in case of invalid inputs and the input mode is retained. #43947

When a project with function block D is re-opened, no incorrect plausibility check messages regarding the overlap of elements are shown anymore. #45969

User function blocks

The parameter dialogs for function blocks used locally in user function blocks now correctly reflect the available functionality, matching the UF option "From firmware version". #46116
Affected function blocks: Recipe-Data Sets RE and Analog value comparator A

1.8.2.4 Communication view:

The display of the setpoint dialog for changing constants during the active status display is now prohibited after selecting an FBD/LD bit contact. Bit constants can only be changed in the programming view with subsequent program transfer. # 47290

1.8.2.5 easyE4 Web-Visu editor:

A file named "index.html" in the directory of the easySoft project file no longer causes display errors in the Web-Visu editor. #46101

1.8 easySoft V8.30 version changes

Improved display of the latching button #46149

Improved display of the push button #45980

Improved insertion of SVG images #47467

Improved positioning of widgets #46096 #45464

The properties window displays the widget type. #46285

1.8.2.6 Visualization view of RTD Advanced:

For the screen elements Message text, Rolling text and Message text selection, a notification is shown in case of invalid inputs, and the input mode is retained. #43947

Regarding the screen elements Bar graph and Value display:

If an easyE4 NET project is used, variables can now be used in "Display change, lower/upper limit comparison" without a compiler error being displayed during program transfer.

The same NET-ID must be specified for the display change variables as in the associated variable. #47065 #47159

Screen element Line:

The selection area around the line has been enlarged to facilitate editing. Undo/Redo now also works for changes to line elements. The orientation of the line can now be changed in all directions without pivot point shifting. #47303

1 easySoft 8

1.9 easySoft V8.25 version changes

1.9 easySoft V8.25 version changes

1.9.1 New Functions

Support of new easyE4 firmware version 2.25

- Configuration and commissioning of the Amazon Web Services for the base device
- New function blocks ED (Edge detection) and FF (Flip flop)
- Configuration, Simulation and online test of a Web-Visu which is integrated in the web server

Extension of Data logger export

- Multiple selection of LOG directories and export in batch mode possible
- For programs from FW V2.25 and new created LOG directories:
Export file contains the comments of the operands recorded by the data logger module.

1.9.2 Important modifications

1.9.2.1 Changed E80 file format:

Projects that have been created with previous easySoft versions can be opened and processed with V8.25. Projects that have been stored with easySoft V8.25 cannot be opened with previous versions anymore!

1.9.2.2 Project view:

After installation the default setting for opening and saving easySoft project files is the personal document folder in both cases. #43404

1.9.2.3 Programming view:

EDP Programming

In EDP programs, the search for use points of a single function block now also returns all usages of value inputs and outputs of this function block in the function block diagram. #44821

User function blocks

If a user function block is created and then the device or its program is deleted again, the user function block is also removed from the project. #40206

1.9.2.4 Visualization view of RTD Advanced:

The following keyboard shortcuts are available in the mask editor for editing screen elements: #41226, #41232

- Rotate left CTRL+L
- Rotate right CTRL+M
- Flip horizontally CTRL+I
- Flip vertically CTRL+J

When creating new masks with the cursor-down key combination, duplicate mask names are

1.9 easySoft V8.25 version changes

now avoided. #44503

The default bitmap is also displayed correctly for the message bitmap element after the Flip horizontally or vertically action. #40967

In the parameter dialog for the bar graph element, an invalid entry for the number of graduations is only auto corrected after leaving the input field. #42169

1 easySoft 8

1.10 easySoft V8.11 version changes

1.10 easySoft V8.11 version changes

1.10.1 Important modifications

1.10.1.1 Project view:

Document printing

Now all selectable print sections of the selected device can also be printed individually. #43988

When printing a project with UF user function blocks, the start page of the UF pages is now listed in the table of contents. The "Programming UF" pages now have the correct title. #44016

When printing or in the print preview of a UF user function block from the context menu of the archive folder, the application is no longer closed prematurely. #44876

1.10.1.2 Programming view:

Configuration of function block D

In the case of the message text element, the last text entered in the table is no longer lost when another control, view or application is selected. #43134

Cross-reference list

Via the context menu option "Places of use...", all uses of function block inputs and outputs are now displayed in the circuit diagram. #44517

Plausibility check

When calling up the plausibility check for a user function block that is not used in the program, the errors contained are displayed again. #44404

1.10.1.3 Visualization view of RTD Advanced:

In the RTD screen editor, resizing an element now works correctly if the mouse pointer is outside the editor's canvas when the resizing ends. #41346

In the RTD screen editor, the display of the bar graph's scale is correct when a high value of tick marks is selected. #41644

After converting a NET project to a standalone project, the links in the elements to NET stations greater than NT1 are retained. #41918

The maximum font size has been limited to 48 points for the date and time display, date and time entry, weekly timer entry and year timer switch entry elements. #42022, #43241

For the links set in the visualization of elements and control functions to operands of the easyE4 devices, the existing operand comments are displayed in the parameter dialogs. #43030

If several visualization elements are selected in the screen editor, this group can now be moved correctly. #43826

When pasting elements into a screen other than the one from which they were copied, the elements are placed without an offset. #43838

The display of text in screen elements has been optimized so that a better match is achieved with the display on the device display. #43839

1.10 easySoft V8.11 version changes

When quickly switching views from RTD visualization to communication view, easySoft no longer terminates. #43861

The behavior of the "Current screen" function has been changed:

The screen number from the "Screens" table in the screen overview is reported to the easyE4 and no longer the value of the "Screen activation" function.

If the "Current screen" function is used, it must be checked before the next download whether the numbers still match the numbers in the program.

They are the same by default; if the order of the screens in the "Screens" table or the values of the "Screen activation" function have been changed, the program must be adjusted accordingly. #43862

The previous settings of the assigned variables of visibility or usability are retained in the screen menu and universal button elements when the element selection is changed. #43867, #43868

The selection of the last tab of the element "Year time switch entry YT" is saved. If the element is deselected and selected again, the last tab selected is displayed again. #43869

The mode and display style settings of the message text element are saved and no longer reset to default values when the element is deselected and reselected. #43882

In the screen editor, the "Equal width" button in the toolbar can be used to set the same width for the selected elements. 43901

When creating new masks, it could happen that the screen activation value is not automatically incremented. Now, when creating a new screen, the next free value is automatically entered. #44132

For the message text element, the "Exact value" and "Value range" mode settings now work correctly. #44158

1 easySoft 8

1.11 easySoft V8.10 version changes

1.11 easySoft V8.10 version changes

1.11.1 New functions

Support of visualization device EASY-RTD-DC-43-03B2-00 (RTD Advanced)

- Project planning of the system options and configuration of the visualization application
- Transfer of configurations to the device.
- Storage of configurations on USB stick for import on the device.

Support of new easyE4 firmware version 2.10

- from this version onwards, data exchange with the RTD Advanced is supported.
New system options are available for this.

1.11.2 Important modifications

1.11.2.1 Changed E80 file format:

Projects that have been created with previous easySoft versions can be opened and processed with V8.10. Projects that have been stored with easySoft V8.10 cannot be opened with previous versions anymore!

1.11.2.2 Project view:

Base device, Clock tab

The predefined time zone for New Delhi has been corrected to UTC+05:30. The geographical coordinates for other cities have been updated. #42065

Base device, Modbus TCP server tab

The variable export function now exports all M and N markers that are contained in the enabled marker area. #39003

Module Modbus TCP server, Cyclic data tab

If the unit ID in the cyclical data table is subsequently changed, the application is no longer terminated prematurely. #42852

Module Modbus RTU slave

The settings of an RTU slave module are retained if the base device is replaced by another device type. #43035

1.11.2.3 Programming view:

EDP Programming

If the pre-connection is subsequently changed at a value input in the function block diagram, premature termination of the application is avoided. #42981

1.11 easySoft V8.10 version changes

After selecting a function block contact/coil and pressing the "Switch to function block" button, the parameter dialog associated with the selected function block is now displayed in the function block diagram. #42949

ST Programming

When opening projects from previous versions, saved bookmarks are deleted. This prevents false colors in the text editor. #42531

Configuration of function block D

When pasting an element from the clipboard, the text display dialog now shows the properties dialog of the selected element. #41163

Document printing

The operand comments for the operands ID, Q and QA are now output correctly in the I/O assignment list. #41957

In an EDP program, all text display function blocks D are now included in the printout and different page formats are also considered. #42907

1.11.2.4 Communication view:

Program transfer Device => PC

If a non-networked device in the project is replaced by a NT1 program as a result of this action, the obsolete comments from the project are completely replaced by the device contents and also deleted if necessary. #40374

State display of EDP circuit diagram

Double-clicking on an operand in the circuit diagram view no longer switches to the programming view, even if the search function was previously used. #42833

1 easySoft 8

1.12 easySoft V8.01 version changes

1.12 easySoft V8.01 version changes

1.12.1 New functions

Usage data acquisition

A usage data analysis function can be activated in the easySoft.

If this function is active, Windows settings such as language settings, screen resolution and Windows version are also transmitted to Eaton with usage data such as dialogs or functions used in the easySoft, or function blocks used in the program and their operating modes. This data is used to improve the easySoft and easy devices. At the first start a dialog is displayed to configure this function.

Support of new firmware version 2.02

From firmware version 2.02, an improved security concept is used to store passwords and unlock a protected device interface.

Older easySoft versions do not yet support this procedure and report the error "Invalid object length" when attempting to connect instead of indicating an unsupported firmware version.

With easySoft 8.01, both password procedures are supported.

Use the project setting "V2.00" also for devices with firmware version 2.02, if you want to continue using the previous password procedure.

1.12.2 Important modifications

1.12.2.1 Changed E80 file format:

Projects that have been created with previous easySoft versions can be opened and processed with V8.01. Projects that have been stored with easySoft V8.01 cannot be opened with previous versions anymore!

1.12.2.2 Project view:

Module EASY-E4_DC-4PE1, Expansion parameter tab

The "Update" parameter and its options have been renamed to "Averaging" with the following choices for better understanding: "None", "Weak (4 measured values)", "Medium (8 measured values)" and "Strong (16 measured values)". The function remains unchanged. #38906

Module Modbus RTU slave, Assigned operands tab

In the dialog for defining group assignments, the context menu closes automatically after a click in the table. #39124

Printing

For older firmware versions, all operand assignments are now printed completely, and additional blank pages are avoided. #38874

1.12.2.3 Programming view:

EDP, LD and FBD Programming

The constant 0 can be set again. #40151

ST Programming

Bookmarks are preserved when switching between views. #40197

Cross-reference list

For EDP programs, value assignments to FB value inputs are now fully listed. #35830

User function blocks

If password entry is aborted when attempting a protected user function block, an infinite loop is now avoided. #39107

In the password entry dialog, the explanatory text is fully visible even for long file names. #39108

The operand comments of the inputs and outputs of user blocks are displayed again in tooltips. #39910

When closing the register of a user function block in the simulation view via the "Close" button, there is now no longer a long delay. #39994

In certain cases, a password was requested when reopening an unprotected user function block that was programmed in ST and only stored locally in the project. This is now prevented. #40330

Plausibility check

Exceeding the maximum size of the comment and configuration memory is now already reported in the plausibility check. #39005

1 easySoft 8

1.13 easySoft V8.00 version changes

1.13 easySoft V8.00 version changes

1.13.1 New functions

- Support of the easyE4 base devices with firmware version V2.00 with the following new functions:
 - The remanence data memory was increased to 512 bytes.
 - The application memory was increased to 128 kB.
 - The comment and configuration memory was increased to 72 kB.
 - Enhancement of function block D:
 - Double font size in value display and up to 3 decimal places in value display and input.
 - Enhancement of function block RE:
 - Recipes can have variable content (operands).
 - Support of optional I/O expansions
- Extension of the card management:
 - Display of additional information about the data logger directories.
 - Export of the data logger records with presetting of a time interval for filtering.
 - Access to card content also in device state RUN (from V2.00).
- Extension of the user function block management:
 - Separate storage of project-independent ("Archive") and project-local ("Project") user function blocks.
 - Opening an easySoft project using user function blocks no longer changes the project-independent storage. This avoids conflicts with user function blocks of same name with different content.
- Optional import of all existing user function blocks from easySoft 7 to the easySoft 8 archive.
- "Diving" into user function blocks within program simulation with display of the execution results within the user function block.
Recording of the UF-local markers in the operand window and oscilloscope.
- When switching in both directions between programming and simulation views, the current scroll position and the last settings for collapsed areas are now adopted for all programming methods.
- easyProtocol V2: This enables more efficient communication between PC and base device, optionally with encryption on SSL/TLS basis (from V2.00).
The firmware certificate required for this can already be registered in Windows during easySoft installation.
The previously used easyProtocol V1 is still available for all firmware versions.

For a complete explanation of all new functions for firmware version V2.00 and easySoft V8.00, please refer to the manual or the easySoft context help.

1.13 easySoft V8.00 version changes

1.13.2 Important modifications**1.13.2.1 New file format E80:**

Projects with the file extension "e70" can be opened directly with version 8.00.

Projects saved with V8.00 are saved in a new format with the file extension "e80" and cannot be opened with older easySoft versions.

1.13.2.2 Programming view:**Configuration of function block DL**

The user input "0" for the number of files per log session and for the number of records per log file is now automatically corrected to the minimum possible value "1".

Without manual re-editing, there is no automatic correction in existing projects! #37451

ST Programming

The "Copy source code" function can only be applied to a selected area.

A new keyboard accelerator CTRL+SHIFT+C is available for this purpose. #34401

1.13.2.3 Communication view:**Representation of 32-bit values in SWD modules**

State values for SWD - I/O points with data type DWORD (32-bit) are now generally displayed in signed mode in online display, as they are generally only processed signed mode in easy program. #34934

1.13.2.4 Project migration:

As part of the migration of e60 projects, the firmware version "1.30" is now generally set for the base devices so that the programs can still be used on older base devices. To use the full functionality of the current device version, the firmware version can be increased in the system settings of the base device.

Please note that the latest version "2.00" is only used on devices from hardware revision "08" and that a firmware version that is set too high can subsequently no longer be decreased in easySoft! #36170

1.13.2.5 General:

The appearance with Windows zoom setting 125% (120 dpi) has been improved in several places.

1 easySoft 8

1.14 easySoft V7.41 version changes

1.14 easySoft V7.41 version changes

1.14.1 Important modifications

1.14.1.1 Project view:

Modbus variable export

The operands MD and ND are exported with the correct operand number. #35686

Operands are no longer exported with comment, so that the entries can be imported into Galileo. #35467

Marker area assignment dialog

For the function blocks MC and MU (acyclic Modbus requests) the display of the occupied markers has been corrected. #35729

1.14.1.2 Programming view:

Protocol window of the plausibility check:

It is now possible to jump repeatedly to a user function block by double-clicking on an entry within the protocol output window without opening the user function block multiple times in the programming view. #34846

Cross-reference list

Accesses to the marker area by the function blocks MC and MU are now included in the cross-reference list. #35750

Sorting entries by operands now also works for marker. #35787

ST Programming

The incomplete entry of "UF1" in the source code no longer leads to a permanent allocation of the FB instance. #35561

Text display editor

The installation of the font "Arial Unicode MS" is no longer required and an unintentional termination of easySoft during the parameterization of text modules is avoided. # 35953

1.14.1.3 Communication view:

On the HW Info tab, the internet links have been updated for base devices. #35579

In the device search via easyNET (NET... button in the Program / Configuration dialog), an error has been corrected that previously prevented the display of all devices found. #35687

When uploading an EDP program (Device=>PC), the pre-circuit at input I1 for the function blocks VC and NC is now restored. #35799

1.15 easySoft V7.40 version changes

1.15.1 New functions

- easySoft V7.40 can be installed and run in parallel with the previous versions. #30993
- easySoft V7.40 is released for Windows 11. #31752
- Support of base devices with firmware version V1.40
- Support of the communication module EASY-COM-RTU-M1 (Modbus RTU Master or Slave) with configuration of slaves and cyclic requests directed to them (from V1.40)
Note: In RTU slave mode, direct access to network flags will be supported in a later firmware version!
- Support of new Function block MU – Modbus RTU acyclic request (from V1.40)
- Support of SWD Module PXR-RCAM-SWD
- Adding new devices and modules to the project configuration by double-clicking on the entry in the device catalog, if possible #16833
- E-Mail tab of base device: new edit field "Sender (From)" (from V1.40) #30851
- new options in the Modbus TCP client function of the base device (from V1.40):
 - 32-bit mode for easier transfer of double words with FB MC #31620
 - Configuration extension for TCP server modules with "twisted" byte sequences #31426
 - Configuration extension for TCP server modules with option „Auto-Decrement on all addresses“, if the addressing in the server starts at 0 and not at 1 #31628
- Structured Text – Editor extensions:
By keyboard (Ctrl + Acute-Accent) the insertion point can be moved between the beginning and the end of a parenthesized expression or complex statement in both directions. #18939
- Extensions in the display dialog "Operand window+Oscilloscope"
 - Display of numeric values decimal or sedecimal
 - State changes of input operands and markers directly in the operand window (markers can thus also be changed online) #30474
 - Limiting the range of values for the display in the oscilloscope #30889
- When the status display is turned on, changes to setpoints (e.g., caused by user inputs in FB D) are automatically detected and displayed updated in the workbench window. #17711
- „Clock“ tab in Communication view:
Manual triggering of clock synchronization with the SNTP server specified in the program (from V1.40) #30857
- The operand ID18 indicates whether the SD card is available (from V1.40). #32470

1 easySoft 8

1.15 easySoft V7.40 version changes

1.15.2 Important modifications

After changing the Windows screen resolution in easySoft operation, the user interface (menu bar, toolbar and status bar) is still displayed correctly. #19071

1.15.2.1 Project view:

Dialog Marker area assignment

Minor corrections have been made to the occupancy display. #30566

1.15.2.2 Programming view:

In the first FB D parameter tab, the checkbox descriptions have been redesigned to clarify that enabling the P-key functionality results in disabling the default key function. #29204

In the printout, the layout of the function block parameters has been revised for all programming methods to avoid truncated texts. #33597

EDP Programming

In the circuit diagram, pasting from clipboard contacts at coil position as well as coils at contact position is rejected. #30816

LD and FBD Programming

The creation of bit coils as parallel connection is supported by keyboard input. #30764

If more than one symbol or network is selected, keyboard input of operands is inactive. #31460

The click area for expanding and collapsing a network has been enlarged to the entire number field of the network header. #31432

When adding a network via the context menu, the new network is inserted before the first network, even if the latter is not fully displayed. #30272

ST Programming

If the jump target of an entry in the log window or in the cross-reference list is in a collapsed ST construct, the ST construct is automatically expanded to be able to position on the jump target. This also works for nesting constructs. #29110

After starting the search, the Find/Replace dialog is no longer closed automatically. Even when switching to the workbench window the dialog remains open. #32652

Print output has been optimized for extra-long lines, word wrapping is avoided. #32143

If printing is started from the preview, a complete printout is generated. #32433

User function blocks

In firmware version V1.40, there are no changes regarding the programming in user blocks in compared to the previous versions. Therefore, version 1.30 still appears in the "From firmware version" selection field for a user block that is created for a device with firmware version 1.40. #32338

1.15 easySoft V7.40 version changes

Cross-reference list

When printing a long list usage points of operands, a required switch to a subsequent page is considered. #32495

All operand access types are correctly listed in the project printout. #33595

1.15.2.3 Simulation view:

For expansion module EASY-E4-DC-6AE1 the value ranges of the analog inputs are displayed correctly. #33227

1 easySoft 8

1.16 easySoft V7.32 version changes

1.16 easySoft V7.32 version changes

1.16.1 Important modifications

1.16.1.1 Programming view:

EDP Programming

The keyboard operation in the circuit diagram editor has been changed in such a way, that a single press of the Ctrl or Shift key remains without consequences, when navigating within the diagram with the cursor keys. #32031

LD and FBD Programming

When multiple diagram symbols are selected (moving the mouse with the left key pressed), automatic scrolling no longer occurs to bring the last selected symbol back into the visible area. #31118

Constants entered via keyboard at function block value inputs are now accepted correctly. #31121

In the parameter dialog for an analog contact, it is now possible to enter the minus sign for a negative constant directly. #31124

ST Programming

The printout has been corrected:

Control characters for color formatting no longer appear in the printout. #30893

The background color setting for screen display is completely ignored for printing. #32138

Previously, the program lines were generally printed in black color except for keywords and comments. Now the preset text colors are considered in the print output, unless they resemble the white sheet color – in this case they are printed in black color instead. #32033

Cross-reference list

In the cross-reference list dialog, the comments for marker operands with three-digit operand numbers appeared incorrectly assigned after a comment change, but the internal data management was correct.

For example, comments entered for MW10 also showed up for MW100 through 109. This is now corrected. #30987

1.16.1.2 Communication view:

The preparation of the configuration data for a program with Modbus TCP client function has been corrected:

If a cyclic FC23 request with a different number of registers for reading and writing was configured in a Modbus TCP server module, the operand assignments for all subsequent requests in this module no longer matched the configuration. Faulty process data were transferred. #31116

1.16.1.3 Simulation view:

The emulation of the FB MC behavior has been improved; the function block now always shows the number of requested Modbus elements at the QV output after the end of the BY phase. #32030

1.16 easySoft V7.32 version changes

1.16.1.4 Project migration:

The high-speed counters C12 and C13 of easy500/700 are migrated correctly, if their RE inputs are used. #31444

An UC extension is now generally added to a base unit of UC type. #31446

1 easySoft 8

1.17 easySoft V7.31 version changes

1.17 easySoft V7.31 version changes

1.17.1 Important modifications

1.17.1.1 Project view:

Exchange of E70 files with different Windows region settings

E70 project files saved with V7.30 can also be opened on a computer that has different Windows language or region settings, e.g., files can now be exchanged between computers with Polish and German Windows.

The E70 file format has not changed by this! #30525

Modbus TCP server module, Cyclic data tab

The function code list box is now displayed correctly in all situations. The display of a black area when clicking on the "Function code" column in line 1 after a tab change no longer occurs.

#30358

The table of cyclic Modbus requests is now displayed completely in all situations. If the window size of the application is relatively small or it is changed quickly, display errors no longer occur. When adding new rows with the "+" button, parts of the table are no longer cut off. #30482

Base device, Modbus TCP server tab

In the variable export (ITF file), operand comments are no longer added, since this prevented the correct transfer to Galileo in the case of bit flags, for example. #30308

Marker area assignment dialog

The released marker areas from the Modbus TCP server settings are generally no longer considered in the assignment table, since the actual marker accesses via Modbus TCP cannot be determined based on the project. #30258

1.17.1.2 Programming view:

LD Programming

With large LD diagrams, it could occasionally happen that parallel networks were no longer completely recovered when a project was read in again (missing links or disappeared symbols). This is prevented in V7.31. #30565

EDP Programming

The comments of operands, which are assigned to value inputs or outputs of a function block, are now automatically deleted on deleting the FB in the function block diagram, unless the operands are still used at another place in the program. #29429

1.17.1.3 Simulation view:

Within LD and FBD diagrams, a multiple selection frame is no longer created (moving the mouse with the left key pressed), since multiple selection of symbols is not supported here.

#30270

1.17.1.4 Project migration:

An UC extension is now generally added to a base unit of UC type. #30473

1 easySoft 8

1.18 easySoft V7.30 version changes

1.18 easySoft V7.30 version changes

1.18.1 New functions

- Support of base devices with firmware version V1.30 with new system options:
System settings tab: "System event logging" #19617
Ethernet tab: "Remote display configuration", "Access control" #20626
Webserver tab: Write access rights "E-mail" and "Remote display keys" #19922
Modbus server tab: „Set clock disabled“ #19447
E-mail tab: System message „Configuration error occurred“ #18964
- Support of the communication module EASY-COM-SWD-C1 (SWD coordinator) with complete configuration of the SWD line within project view (from V1.30)
- Support of the Modbus TCP Client function within base device: Configuration of up to 4 server connections and cyclic requests directed to them within the project view (from V1.30)
- Support of new function block MC – Modbus client acyclic request (from V1.30)
- Support of new operating modes GE (greater equal) and LE (less equal) of function block A – Analog value comparator (from V1.30) #20590
Consideration of the new operating modes in the migration of easy500/700 projects #20596
- Support of printable Non-ASCII characters (Unicode) in function block AL – Alarm function block within subject and message text #20229
- Support of new LE operands LE4 ... LE6 to switch the background color in the display of the base unit independently of the FB D text display (from V1.30) #20342
- Tabular presentation of all markers used in the program (menu point Project→Marker area assignment) with the possibility of a transfer to MS Excel #20580
- Search for comments in LD/FBD diagrams extended: whole words, case sensitive/insensitive, search in network comments #19579
- Find and replace dialog in Structured Text no longer blocks switching to the program window; additional hint when reaching the end of the text #19663
- new Make and Break catalog items for the most recently used operands I, Q and M (LD/FBD) #19599
- Entering timer values with keyboard (e.g. T#50ms, T#1h2m, T#1m30s) and automatic creation of new Analog contacts in LD/FBD #19564
- Entering operands with keyboard in LD/FBD without time pressure, the input is terminated with the RETURN or ESC - key. #19563
- automatic closing of wiring gaps when moving contacts within the EDP circuit diagram #19639

1.18 easySoft V7.30 version changes

- automatic closing of wiring gaps when inserting new contacts and coils up to the next adjacent diagram element; no general through-connection up to the left edge of the EDP circuit diagram #20568
- extended configuration dialog for copy & paste of EDP diagram lines #20887
- new accelerator keys Ctrl+Ins and Shift+Ins as an alternative to Ctrl+C and Ctrl+V (Copy & Paste via clipboard) #20856
- Remark on a missing device password at the start of the program transfer extended: an automatically generated password can be used #21339
- Representation of display content in simulation and communication: either as before in the web server view or alternatively monochrome with current background color as in the display of the base device. Visualization of the LE4...LE6 operand states #19502, #19503, #20623, #20624
- Alternative to the input simulator: inverting a state by mouse double-click directly on the point of use in the program window, usable for operands I, ID, M, N und RN (in Online mode also for M); the properties window does not have to be displayed for this #19961
- The automatic exchange of the properties window has been reduced to a minimum in the state display - now it is only done automatically when selecting constants and blocks in the program window. For other operands, the exchange must be triggered explicitly by selecting the corresponding entry in the "Display" catalog tab.. #19960
- Table of contents in document print #20454
- faster switch to several parameter dialogs in project and programming view #20303, #20025
- Output of operand comments in the project migration protocol #19352

Changed E70 file format:

Projects that have been created with previous easySoft versions can be opened and processed with V7.30. Projects that have been stored with easySoft V7.30 cannot be opened with previous software versions anymore! #19365

1.18.2 Important modifications

1.18.2.1 Project view:

Base device, E-mail tab

Deleting an email group no longer generally resets the recipient group for system messages. #20033

Base device, Clock tab

The maximum length for a SNTP server URL has been corrected from 32 to 63 bytes. #21193

1 easySoft 8

1.18 easySoft V7.30 version changes

1.18.2.2 Programming view:

EDP Programming

While editing a sticky note, it is no longer possible to turn off the display of sticky notes. #20181

The options dialog when copying and pasting rungs has been completely revised. #20509, #20901

During the plausibility check, there are no longer any misleading warnings of incomplete wiring (FB BT and DB without edge evaluation at the trigger input). #20775, #20878

When editing in the circuit diagram, function blocks are no more automatically deleted in the function block diagram that are still without parameterization and usage. #21182

When inserting rungs, the original station number is retained even if it is invalid – a manual correction is now possible. #21382

LD and FBD Programming

To avoid layout errors in LD/FBD diagrams, it is recommended to set the desired printer (e.g. Print To PDF) as the default Windows printer and to select it under "Printer setup" in easySoft. #18242, 19335

When subsequently switching the time range setting of a Timer, an upstream constant is converted as far as possible to the new time range. #16919

In the "Search" dialog, a NET ID can now be specified as a separate search criterion. #20294

If you click with the mouse in a free diagram area, the last selection is retained. #21156

ST Programming

Within a function block call the identifiers of FB inputs and FB outputs (e.g. OF) are no longer colored as ST keyword. #15004

The keyword CASE is supported in any upper and lower case. #20473

The printout of an ST program is made in the font setting for the screen display. #29244

Cross-reference list

Even if interrupt function blocks are used in the program, navigation within the usage locations is possible. #20951

User function blocks

The print layout of the parameter page has been optimized. #19008

Within a user block LD/FBD networks can be expanded or collapsed as required without triggering an unnecessary prompt for saving. #21203

In project view a device including its program can be copied and pasted. If a user function block is used in the program, there is no longer a premature close of the easySoft. #21209

1.18 easySoft V7.30 version changes

Communication view:

The RUN/STOP state of the coupled device is now periodically determined and visualized in the user interface. #20803

When starting the status display, the circuit diagram content is shown even if the oscilloscope tab was previously active. #21147

When the status display is turned on, the current caret position in the ST text is retained when switching temporarily to another tab (e.g. Oscilloscope). #21149

The entire visible area of the program window is refreshed in the status display, even if collapsed ST text blocks are present. #21340

When transferring a program to the device, the column position of the FB D element "Date and time display" with the setting "weekday" is no longer shifted one column to the right. #21403

When a program is transferred to the device, additional management data is generated for user blocks without bit inputs so that upstream setpoints can be edited at the device. #29555

1.18.2.3 Simulation view:

When switching between programming view and simulation view (back and forth), the last cursor position is retained. #19519

Within a FOR loop, the states are displayed at the moment of loop termination; this now also applies to assignments of constants. #20034

Within the operand window loading of an operand list file can be done from any directory. #20559

1.18.2.4 Project migration:

The mapping of the operands R and S to I and Q in easyE4 is now correct.

Operands I and Q for which there is no longer a terminal in the easyE4 base device are generally moved to the starting number for expansions from I17 or Q17. #19047, #19048

A supplemented expansion now always receives the same power supply type as the base device (e.g. DC+DC or UC+UC). #21071

1 easySoft 8

1.18 easySoft V7.30 version changes

Note on the migration of projects with Remote IO NET devices

The NET operands I, Q, R and S of the easy8xx device family are no longer available for remote access in easyE4. As part of the migration they are mapped to the new NET operands N according to the table below. The direct link to the input and output terminals of the addressed Remote IO devices therefore no longer exists:

NET-Operand easy8xx	new NET-Operand easyE4
nI1 ... nI16	nN80 ... nN95
nR1 ... nR16	nN96 ... nN111
nQ1 ... nQ8	nN112 ... nN119
nS1 ... nS8	nN120 ... nN128

Remote IO devices without a circuit diagram are currently not included in the e70 project and must be added manually and, if necessary, extended with a digital expansion module.

Subsequently, a program must be created in each of the added devices, which takes over the mirroring of the terminal states to the N operands and back by means of simple assignments (based on the above assignment and the information of the conversion protocol).

1.19 easySoft V7.22 version changes

1.19.1 New functions

Context help and easyE4 manual are now available in French, Spanish and Czech.

1.19.2 Important modifications

1.19.2.1 Programming view:

LD and FBD Programming

With large LD or FBD diagrams, it could occasionally happen that parallel networks were no longer completely recovered when a project was read in again (missing links or disappeared symbols). This is prevented in V7.22. (#20583)

EDP Programming

After changing the operand number of a contact by keyboard, its context menu can be called immediately and not only after reselection of the contact; also, the corresponding parameter dialog is displayed immediately. (#20839)

Cross-reference list

The creation of a cross-reference list has been optimized: all used operands are now listed, even in large programs. (#20632)

Operands which are used in an FB pre-circuit or FB post-circuit are now included in the cross-reference list. (#20669)

The call of a function block is now listed separately in the cross-reference list with access type C. (#20669)

For programs with interrupt blocks it is now possible to navigate to the usage locations. (#20750)

User function blocks

After renaming or changing the version of user function blocks, data loss or incorrect display of the content may occur when saving the user function block. Therefore, this function is no longer available in this context.

In this situation only use the function Close → User function block. (#20712, #20713)

After changing the content of a user function block, a crash no longer occurs when closing the easySoft project. (#20714)

1.19.2.2 Simulation view:

Function block PM (Performance map)

The simulation now supports characteristic curves with very large reference values. (#20630)

1 easySoft 8

1.20 easySoft V7.21 version changes

Function block PW (Pulse width modulation)

The simulation now considers the special use case that the controlled output is permanently set to HIGH or LOW due to too short switching times. (#20637)

1.20 easySoft V7.21 version changes

1.20.1 Important modifications

1.20.1.1 Project view:

Security configuration

A meaningful error message will be issued, in case an invalid device password „000000“ is entered. (#19665)

E-mail Configuration

Automatic deletion of un-valid e-mail addresses won't be done any more.

Checking a recipient list will only be done via plausibility check.

E-mail addresses from a local domain area will now be allowed, e.g. user@localserver. (#19713)

Assigned Operands

Copy and paste of I/O assignments within an assignment list will now be supported. (#19737)

When executing the „Delete program“ context menu option, the display languages for the function blocks Text display will be deleted as well. (#18922)

Printing of NET Projects

The selection dialog does no longer pre-adjust NET station NT1, it will pre-select the actual participant instead. (#19337)

1.20.1.2 Programming view:

Cross-reference list

The dialog will now support subsequent changes of the sortation for all columns. (#20337)

Text display editor

For the *Rolling text* element, a display time of 1 second is pre-selected, to improve the readability on the device. (#18903)

If a text display function block is copied to the clipboard, all entries of the display languages table will be copied into the clipboard as well. When pasting the function block from the clipboard, missing languages will be pasted to the insertion point as well. This ensures that all existing texts are available for the inserted text elements. (#19604)

If multiple elements are selected using rubber band selection and then copied to the clipboard, the original navigation sequence is now preserved when pasting. (#18719)

User function blocks

User function blocks can now be exported to the desktop, the Documents folder or a network resource folder. (#19484)

In the *Create user function block* dialog the given remanence scope will now persist when switching between MB, MW or MD presentation. (#20048)

EDP Programming

When re-reading a project, the sticky note of the last used current path won't get lost anymore. (#20220)

When moving coils by mouse, their original coil function will remain. (#19531)

Deleting content of circuit diagrams will only work at the first actuation of the DEL key. (#19618)

Operands and connection elements will only be deleted at the actual position. Sticky notes won't be deleted anymore. (#20086)

The *Search* function will now also find function blocks of the following types:
Analog value comparator A, Counter relay C, Text display D, Weekly timer HW and NET marker N. (#19526)

When using the *Go to* function the content of the circuit diagram won't be changed anymore. (#20041)

Switching on the tool *Drawing connections*, *Eraser* or *Add note* would always show the program info dialog.

Switching off the tool would navigate back to the previous circuit diagram position. The corresponding parameter dialog will be displayed again. (#20079, #20230)

LD and FBD Programming

The maximum number of symbols that can be copied and pasted via clipboard has been increased:

The paste action will be aborted when it takes longer than 5 minutes. (#19046)

When copying and pasting function blocks, the original operand numbers are retained when inserting into an empty diagram.

When inserting into a diagram that is not empty, new operand numbers are assigned to the function blocks that have not been used so far. In this case, contacts and coils referencing these function blocks are now corrected to the new operand number, too. (#19604)

The *Search* function does only expand collapsed networks, if they contain a search hit. (#18897)

ST Programming

If the last application point of an operand has been deleted from the source text, its operand comment now remains, in case the operand still has an assignment to an I/O point configured. (#20000)

1 easySoft 8

1.20 easySoft V7.21 version changes

1.20.1.3 Communication view:

Dialog Search for devices

If unknown devices are found, their actual parameters will still be displayed. However, it is no longer possible to change their settings. (#19010)

Status display

A serial connection of user function blocks in LD or FBD, having value inputs and outputs only, will now be supported in the online presentation. In addition, the original program can now be reconstructed by actions like Device → PC. (#19349)

Operand Display

The dialogs now consider the restricted value range for Byte marker and Word marker, if the user sets a new status value:

If the user input is out of the supported value range, it will be corrected to the maximum or minimum value feasible for this operand. (#19485)

Oscilloscope

If an oscilloscope channel is set up using a value input or value output of a manufacturer function block, its potentially limited value range will be automatically considered when aligning the vertical scale of the channel. (#18918)

Card setup

When transferring a program with action Device → Card and selecting a file which already exists on the card, the original file will now remain if the action is aborted by the device. (#19390)

1.20.1.4 Project migration:

Importing expansion modules, the original voltage supply (UC instead of AC) will now be correctly taken over. (#19423).

If a program imported which uses analog input operands of the base device, the I operands will now be re-arranged: (#19341)

- Terminals capable to be digital and analog inputs as well (operand I7, I8, I11, I12), will now be moved towards easyE4 terminals of the same functionality (operand I5, I6, I7, I8).
- The original digital terminals I5 and I6 will be moved towards an expansion module

The diagnostic markers R13 to R16 of an EASY406-DC-ME resp. EASY411-DC-ME expansion are now generally mapped to operands from ID25 (#19424)

A new arrangement of operands will now be more exactly protocolled. (#19422)

The ENC parameter of the CH, CF and CI function blocks will now be configured in a way that the behavior of the function blocks will be the same as in the imported program. (#19388)

The easy500/700's high-speed counters C13 and C14 as well as the frequency counters C15 and C16 are now included in the easyE4 program as CH and CF. (#20351)

Projects using PT function blocks can now be imported. (#19692)

1.20 easySoft V7.21 version changes

Text display function blocks D do now represent their display elements at the right position of the text editor window. (#20227)

When converting a circuit diagram into a LD diagram, circuit diagram jumps without a jump target contact are now considered: To keep the original circuit diagram logic, missing jump links will be added to the LD diagram (#19964).

The easy500/700 operands M1...M16 remain un-changed, operands N1...N16 are moved to M17...M32. Within easyE4, retentive markers can only be configured as one single and connected area. Hence, markers, so far not being retentive, can be part of the retentive area after import.

After importing, please observe the retention settings and correct, if applicable. (#20350)

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1.21 easySoft V7.20 version changes

1.21 easySoft V7.20 version changes

1.21.1 New functions

- The following new devices with push-in terminals are now supported:

EASY-E4-UC-12RC1P
EASY-E4-UC-12RCX1P
EASY-E4-DC-12TC1P
EASY-E4-DC-12TCX1P
EASY-E4-AC-12RC1P
EASY-E4-AC-12RCX1P

EASY-E4-UC-8RE1P
EASY-E4-UC-16RE1P
EASY-E4-DC-6AE1P
EASY-E4-DC-8TE1P
EASY-E4-DC-16TE1P
EASY-E4-DC-4PE1P
EASY-E4-AC-8RE1P
EASY-E4-AC-16RE1P

- New base device function for cancelling the programming language or deleting the program without losing the corresponding system settings, including device parameters; option in context menu *"Delete program"* (#18340)
- New web server option *"Parameters"* for enabling write access to function block inputs (#18200)
- New functions in ? menu (#18449)
Function for opening the easy forum website
Function for opening the YouTube playlist for easyE4/easySoft7
Function for showing the license terms after installation
- The comment and the supported firmware version for a user function block can now also be displayed outside the configuration dialog box (#18302, #18312)
- Text display, message text in value range mode: The *Value range* column now shows, for each row, the interval limits that will trigger a change to the assigned message text. (#18301)
- A new analog contact with a constant value can now be created directly with the keyboard without a leading number sign # (#18277)
- A cross-reference list can now be created exclusively for the current operands using the *Instances* context menu option (#18307)
- When you return to the Programming view, the last saved catalog structure state (expanded and collapsed folders) will be restored. (#18358)

1.21.2 Important modifications

1.21.2.1 Project view:

Exiting easySoft with write-protected project file

If a project cannot be saved anymore due to its being write-protected, easySoft will not close. The file can then be saved with a different name. (#18281)

Modbus

The Modbus tab now shows the current options correctly when the current device is changed in a NET project. (#18468)

For programs created using ST, the ITF export file now includes the operands found in the configured Modbus ranges. (#18433)

Concept change in mail server settings

For devices with FW version 1.20 or higher, the full domain name for the e-mail server (e.g., smtp.strato.de) now needs to be entered into the *DNS name* field, since the firmware no longer puts together the DNS name with the information in the *Mail server domain* field.

It is now necessary to enter the hostname or the domain for the device itself into the *Sender domain* field (previously *Mail server domain*), e.g., easyE4. The information in this field is used only to log in to the mail server now. (#18330)

Pasting programs

It is no longer possible to paste a program if it contains any operands not supported by the target device. (#18503)

Dialog Card setup

The dialog is no longer closed automatically if the user cancels selecting a master directory – the path that was last defined will be kept. If there are any error messages, they will be detected directly and shown above the table.

It is no longer necessary to restart the dialog. (#18438)

1.21.2.2 Programming view:

General

If the report window was resized to a very small size or was not visible fully the last time it was open, it will be automatically positioned over the lower third of the main window if displayed again. (#18429)

Cross-reference list

The dialog now also shows all operands that are used only in one text display function block. Navigating within instances will take you to the point where the function block is called. (#18198)

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Text display editor

If nothing is entered into the status value table for a message text or message text selection of data type bit, easySoft will prevent the device from showing question marks only:

The plausibility check will reject this incomplete configuration for the message text selection.

For message texts, a warning will be output instead, and the default text will be used for the missing texts for downloads. (#18190)

User function blocks

It is now possible to use the *Create user function block* function twice: The 2nd dialog will no longer contain the content of the 1st dialog box. This prevents the software from being closed prematurely. (#18594)

Inside the user function block, it is now possible in the editor, to use all operand numbers for the local input and output operands without restrictions regardless of the current interface definition. Instead, the plausibility check will point out any discrepancies. (#18046)

If an exclamation mark is shown next to the input field for *Name* and *Version* in the configuration dialog, moving the cursor over it will show a tooltip with a more detailed explanation of why the corresponding entry is not allowed. (#14939)

If the ST programming language is being used and a specific function block is no longer being used in a user function block, the program will ensure that the aforementioned instance will be available for new function blocks. (#18076)

FBD and LD Programming

Directly entering "RN1" or "SN1" with the keyboard is now always interpreted as a RESET or SET coil with operand N1 and is no longer allowed at contact positions. (#18106)

When copying and pasting, coils with input negation (Set, Reset, Impulse relay) are now copied correctly. (#18495)

ST Programming

New drag and drop elements for simulating a SET or RESET circuit (#16892)

Text is no longer lost when the indentation for a selected text block is made smaller. (#18110)

Keywords can now be written with uppercase and lowercase letters as necessary. In order to ensure that source texts can be replaced without a problem, it is recommended to use uppercase or lowercase letters in a consistent manner. (#18140, #18527)

The *Autocomplete* function now supports operands with a prepended NET-ID as well. (#18107)

The *Comment out* and *Uncomment* functions have been improved. (#16842)

1.21.2.3 Communication view:

Dialog Search for devices

If there is no device name in the currently selected data record, a new connection profile will be always automatically created with the device's current IP address.

If there is a device name, the user will be able to select, whether the new profile should be generated based on the current IP address or on the device name.

If changes have already been made to the currently selected data record, but these changes

1.21 easySoft V7.20 version changes

have not yet been transferred back to the device, the attempt to generate a new profile will now be aborted with the following message: "Please first transfer the modified configuration to the device, as obsolete parameters will otherwise be saved in the new IP profile". (#17791)

Dialog NET configuration

For the currently connected device (highlighted with a dot in the 1st column in the table), it is no longer possible to make changes to the IP settings, as doing so would normally result in the connection being immediately terminated. (#18318)

Disconnections after program transfers

If the IP address for the device changes after a program transfer due to a modified address mode, easySoft will automatically attempt to establish a connection using the new address. (#17770)

Status display

The information indicating whether an LD/FBD network is collapsed is now stored in the device when the program is transferred and considered in the online status display. (#16793)

Online configuration display

If a configured device is replaced with a compatible expansion in reality, the replaced device is now highlighted in yellow and only the I/O points for the replaced device will continue to be shown. (#17873)

1.21.2.4 Project migration:

If easySoft V6 is not installed, opening an e60 file from Windows Explorer will automatically start easySoft 7 and, if successful, the program will save it as an e70 file. (#18474)

Operands that are copied to the E4 program without changes are no longer included in the conversion report. (#18483)

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1.22 easySoft V7.11 version changes

1.22 easySoft V7.11 version changes

1.22.1 New functions

Extension of following user interface languages

- Spanish
- French
- Portuguese
- Czech
- Hungarian
- Romanian
- Russian
- Turkish

Activation of wiring test function.

Export function for marker, NET marker and assigned Inputs and Outputs to an ITF file, readable from Galileo 10 (Project view – Tab Modbus – Button „itf Export“)

Notification message at program download if no device password has been set in project.

1.22.2 Important modifications

1.22.2.1 Project view:

On the System settings tab in the Retention group, you can now enter marker bytes (MB) up to 1024. No marker word limits must be observed. (#18278)

Custom location names for device location can now include quotation marks, apostrophe, and the characters "<", ">", "&". (#18346)

1.22.2.2 Programming view:

General

The tab cards of the CF, CH and CI parameter dialogs now have the correct designation. (#18112)

When switching between devices in the programming view in projects with several devices and different programming methods, the correct toolbar is now always displayed. (#18156)

A multiple opening and closing of user function blocks now works without problems. (#18173)

The input of comments is now limited to 32 characters for all function blocks. (#18177)

Text display editor

For date and time input elements of the text function block, 4 different formats are now available in all country settings. (#18230)

If a message text in the text function block is linked to a DB.QV, the plausibility check no longer displays the error message "Unknown error". (#18290)

1.23 easySoft V7.10 version changes

If a message text display is controlled via a bit variable, both status values no longer need to be parameterized so that no "???" is displayed when status value=0. (#18185)

The text display editor can still be opened and closed at any time even after running the plausibility check and opening the report output and clicking on an error in the text display of the D block. (#18416)

EDP Programming

The operand number no longer changes when the pen tool is used. (#18115)

Negated contacts are no longer displayed as coils in the print preview. (#18145)

Inconsistencies when placing FBs in the EDP circuit diagram can no longer occur. (#18199, #18334)

The checkboxes are now fully displayed in the "Optimize Block Diagram" dialog box. (#18214)

The text display editor can still be opened and closed at any time after the plausibility check has been carried out and a click in the report output window on an error in the text display of the D block has been made. (#18416)

ST Programming

When a new function block is entered via the keyboard, e.g. T10(), the parameters of an already entered FB, e.g. T01(), are no longer transferred to the newly entered FB. (#18297)

1.22.2.3 Simulation view:

For the simulation, the maximum cycle time set in the project system settings is limited to a minimum of 18ms. This avoids exceeding the cycle time due to Windows restrictions. (#18252)

1.22.2.4 Communication view:

The filter function in the online version of the device search (dialog "NET Configuration") now works correctly. (#18319)

The output wiring of the RC.HR function block output is correctly transferred to the device during program download. (#18360)

1.23 easySoft V7.10 version changes

1.23.1 New functions

- Support for new firmware version V1.10
- Web server TLS encryption
- Ability to define user-defined device locations with geodata sets

Support for the following new devices

- EASY-E4-AC-12RC1
- EASY-E4-AC-12RCX1
- EASY-E4-AC-16RE1
- EASY-E4-AC-8RE1

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1.23 easySoft V7.10 version changes

- EASY-E4-DC-4PE1

New function blocks

- AC – Astronomical clock
- AV – Average Calculation
- PM – Performance Map
- RE – Recipe – Data Sets

Extension of following user interface languages

- Italian
- Polish

1.23.2 Important modifications

1.23.2.1 Project view:

E70 files can no longer be opened several times simultaneously from Windows Explorer. (#16885)

The dialog box language can now be changed while a project is open. (#16894)

Starting with this version, e-mail passwords must consist exclusively of ASCII characters. (#17396)

It is no longer possible to assign identical names to multiple users when configuring the web server. (#17497)

Printouts and page previews for NET projects now show bus delay values in a station-specific manner. (#17585)

Printouts now show the parameters for all GT function blocks being used. (#17616)

Using the Enter key no longer prevents dragging devices and dropping them onto the work pane subsequently. (#17614)

It is now also possible to enter, on the device, time zone values for which there is no official time zone definition and edit them in easySoft 7. (#17614)

It is now possible to enable e-mail system notifications even if the corresponding program has been read from a device. (#17956)

1.23.2.2 Programming view:

General


Negative constants can no longer be connected to timer inputs. (#17442)

The cross-reference list now remains open if the view changes when navigating in the cross-reference list. (#17499)

Before the dialog box used to select a programming language appears, the cross-reference list view is now closed. (#17673)

UF user function blocks can now be stored with a different name without a problem. (#17793)

1.23 easySoft V7.10 version changes

The symbol for the "Flashing" timer operating mode has been changed to  in order to make it easier to read. (#17872)

Now, after a UF user function block is deleted, the function block's parameters are maintained. (#17969)

When generating a user function block, the programming language for the main program is now preset in the *Create user function block* dialog box. (#16644)

Clicking on the *Copy from program* button in the *Configure user function block* for a user function block now delivers the correct values for the interface. (#17998)

Text display editor

The status display is now updated when the text display editor is open. (#16993)

It is now possible to change the dialog box language while the text editor is open. (#17451)

When the name for a language is changed in the Languages tab, pressing the Enter key applies the change now. (#17460)

If a new language is created in the Languages tab by entering a name in the line at the bottom end of the language table, the drop-down box in the *Download* column is now filled out correctly. (#17461)

The validity check now reports when the text display is unable to fully show the configured value range in a value entry or value display element. (#17579)

Text display language changes can now be controlled with the input or output of a user function block as a logic gate variable. (#17881)

EDP Programming

The validity check now reports the invalid use of network markers. (#17026, #17079)

The programming view can now be opened without a problem after changing the active NET station. (#17487)

The original zoom setting is now generated again after closing the print preview. (#17673)

All the operands used are now shown in the cross-reference list. (#17826)

After deleting an AR arithmetic function block in the function block diagram, all access references in the circuit diagram are now deleted as well. (#17825)

The position of sticky notes when copying and pasting rungs is now retained. (#17917)

FBD and LD Programming

Whether networks are expanded or collapsed is now saved in the E70 file, and they are displayed accordingly when the file is loaded again. (#16792)

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1.24 easySoft V7.01 version changes

ST Programming

The validity check now detects impermissible divisions or modulo operations with a constant divisor of 0 (#17922).

When the number for a function block call is changed in the ST source text, the original function block parameters are now assigned to the new instance. (#17999)

1.23.2.3 Simulation view:

The "mod 0" error situation is now considered when executing a program. Diagnostic message ID12 is set the same as for "Division by 0." (#17939)

1.23.2.4 Communication view:

For "Division by 0" and "mod 0," the values returned by the device are now shown in the ST status column. (#17922)

When transferring a program (Device=>PC, Card=>PC), it is now ensured that devices already in the project will be completely reinitialized before the contents are copied from the device. This applies above all to the Modbus, E-mail, and Webserver system settings. (#17962)

The part numbers for the devices found are now always displayed correctly in the "Search for devices" dialog box. (#17964)

1.23.2.5 Project migration:

At the end of a conversion for an E60 project, a dialog box for saving the converted project as an E70 file now appears. (#17448)

When migrating E60 projects that contain EASY-406-DC-ME/411-DC-ME- and AC expansions, they are automatically migrated to easyE4 base devices with firmware version V1.10 and higher. (#17747)

1.24 easySoft V7.01 version changes

1.24.1 Important modifications

1.24.1.1 Project view:

The validity check no longer allows addresses in the multicast range.

Saving empty projects is no longer possible.

1.24.1.2 Programming view:

General:

After uploading a program, the set colors are displayed correctly in the text display.

The software now checks to make sure that the text display editor is always displayed on an active monitor.

1.24 easySoft V7.01 version changes

Windows text display sizes no longer affect the position of the text display element.

The instance number of a text function block can now be changed without errors in the parameter configuration dialog box for the text function block.

GT function blocks incorrectly configured with an invalid NET-ID are now detected by the plausibility check.

EDP Programming

User function blocks can no longer be called via the menu bar.

Function blocks that have not been configured and that are not used in the circuit diagram are no longer deleted automatically.

The LB function block is no longer deleted automatically.

Time constants are only offered for timing relays.

The bug causing function block optimization to malfunction has been fixed.

FBD and LD Programming

The state of the notes is now rebuilt when the project is opened.

The plausibility check now catches negative time values.

Upstream circuits connected to function blocks can be cut at all inputs.

ST Programming

The autocomplete drop-down menu is now closed when the user completes the selection with a mouse click.

Autocomplete is now displayed better when the user is in the line at the bottom edge of the screen.

The cross-reference list is no longer closed automatically when the user navigates within it.

When the cursor hovers over a function block, a tool tip will be displayed regardless of case.

1.24.1.3 Simulation view:

Simulations with more than 512 networks in LD/FBD programming now work properly.

1.24.1.4 Communication view:

At the mapping assignment points, the status display now considers the limited value ranges of byte and word operands.

When switching between the oscilloscope view and the status display, the values no longer freeze.

1.24.1.5 Project migration:

A save prompt is now shown for migrated projects closed without changes.

The output log has been improved for the migration of projects with easyNET remote IO stations.

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1.25 easySoft V7.00 version changes

1.25 easySoft V7.00 version changes

1.25.1 New functions

1.25.1.1 New programming languages:

easySoft 7 supports now the programming languages Ladder Diagram (LD), Function Block Diagram (FBD) and Structured Text (ST) and also the easy circuit diagram and block diagram (EDP) known from easySoft 6.

1.25.1.2 New function blocks:

The following function blocks have now been added from the FBs familiar from easySoft 6:

- RC – Realtime Clock
- MM – Min-/Max function
- WT – Weekly timer (new)
- YT – Year time switch (new)
- DL – Data logger
- D – Text display (New)
- AL – Alarm function block (for sending e-mails)
- TC – Three step controller
- IC – Counter-controlled interrupt function block
- IE – Edge-controlled interrupt
- IT – Time-controlled interrupt

In addition, user function blocks (UF) can be defined.

1.25.1.3 Changes to existing function blocks:

All FBs that did not yet have EN except for the "T - Timing relays" have received an additional enable input (EN).

All FBs except for the "T - Timing relays" have expanded by a new parameter for EN - Evaluation (ENC).

The FBs "BT - Block Transfer", "CF - Frequency Counter", "DB - Data Block", "PT - Put value on the NET" have one or two more additional parameters obtained.

The FB "OT - Operating hour meter" has received additional inputs and outputs.

The FB's "DC - PID controller", "FT - PT1-Signal smoothing filter" have received additional outputs.

1.25.1.4 Modified file format (*.e70):

easySoft 7 only supports devices of the **easyE4** family. Devices of the families easy400/500/600/700/800 and MFD-Titan are no longer supported by easySoft 7.

easy500/700/800 projects with the extension *.e60 created with older versions of easySoft can be opened with version 7 or later. The easy circuit diagram will be converted into a contact plan or EDP view and can be further processed then. *.e60 projects with circuit diagrams for easy400/600 and MFD-Titan, plus *.eas and *.e40 projects are not be opened. Converted projects that have been saved with Version 7, cannot be opened with older versions of easySoft!

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