EasyBuilder Pro Version 3.00.01 Build 2013/02/27

New Features

1. Sound files can be saved in project file.

Sound Library provides [Project] directory. Sound files in [Project] directory are stored in the .emtp project file. When open the .emtp file on other PC, the sound files included can be used.

Open Sound Library, select a sound file and click [Copy to project].

Sound Library					X
Library		Name	Size	•	Import
[Project]	 0	00chimes	54 k		
sound1	1	01chord	94 k		Export
sound2	2	02ding	78 k		Exportin
sound2	▶ 3	03notify	116 k	ſ	Play
	4	U4recycle	24 K		Fidy
	5	05ringin	9 k	ſ	
	6	Ofringout	5 k		Delete
	7	07winAquariumE	208 k		1
	8	08tada	167 k		Copy to project
	9	09winSpaceError	8 k		
	10	10winSpaceExcla	9 k		
	11	11winSpaceMaxi	27 k		
	12	12winSpaceMini	28 k		
	13	13winSpaceOpen	10 k		
	14	14winSpaceResto	26 k		
	15	15. un Prano Danta	90 le	v	
				ОК	Cancel

The selected sound file is copied to [Project] directory.

Sound Library			
Library [Project] sound1 sound2	Name O Beep > 1 O3notify	Size O k 116 k	Import Export Play Delete



 Added [e-Mail] option to Backup object. Information such as RW, RW_A, Recipe Database, Event Log, Data Log, and Operation Log can be sent to configured email contacts.

New Backup Object	
General Security Shape Label e-1 Comment : Source	Mail Recipe database Historical data sampling
Backup position SD card USB disk Remote printer/backup server	🖲 e-Mail

3. Operation Log is a new feature in this release.

Operation Log records user operation steps and display them in real-time. When an error occurs, use operation log to analyze the problem. Operation Log View can also be used to review the process.

Open EasyBuilder Pro; click [Objects] on the menu and point to [Operation Log], and then click [Operation Log Settings] to set the control address.

Control address is used to clear data or copy data to the external devices, the value in control address and the corresponding commands are listed in the following table.

Value	Command
1	Clear all records
2	Copy data to USB disk
3	Copy data to SD card
4	Copy data to USB disk and clear records
5	Copy data to SD card and clear records



After setting Operation Log, add Operation Log View to review the operation process and records. Click [Objects] on the menu and point to [Operation Log], and then click [Operation Log View] to create the object.

New Operation Log View Object
General Title Shape
Comment :
Color :
Profile
Frame : Background :
Grid
✓ Enable
Selection control
Color :
Font
Color :
Name : Arial 💌
Size : 12 💌

4. Colons (:) in non-tag based PLC addresses are automatically eliminated in compilation, therefore the following message is not shown.

Address		
Device type : Address :		
error(s) : 1. [Window 10] 1 error(s), 0 war	BL_0 :PLC address format error (invalid character:':') ning(s)	



 The maximum X axis time range of Trend Display object is extended to 86400 seconds.

New Trend Display Object
General Trend Channel Shape
Description :
Data Sampling Object index : 1.
Trend type : Real-time 👻
Note : if no. of channels is changed, you must reset HMI's data samplings !!
X axis time range : O Pixel O Time
Distance : 86400 second (s)

6. Center align mode is added in Text object.

New Text Object	23
Text	
Use label library Convert labels to bitmap images (Use bitma	p font) Label Library
Attribute]
Font : Arial	
Color : 🗾	Size : 16 👻
Align : Center 🗸	Blink : None 🔻

7. For Bit Lamp and Word Lamp objects, which have the number of states greater than number of used shapes / pictures, Lamp objects can be configured to NOT use the last picture for undefined states.



ew Word Lamp Object	23
Feneral Security Shape Label	
Description :	
Mode: Value Vilset: U	
Read address	
PLC name : Local HMI 🔹 Sett	ing
Address : LW 🗸 0 16-bit Ur	
Attribute	
No. of states : 2	-
✓ Hide picture/shape if no corresponding picture for current state	

 Support using address format DDDDdd to replace DDDDh for Macro functions such as SetData and GetData.

Macro under development :	
	Help
 Password protect *Decompilation cannot recover MACROs when checks [Password protect] 	tect].
Use [DDDDdd] address format to access [DDDDh] partial-hexadeci Macro functions (i.e. SerData, GetData,)	imal address format in

When the check box highlighted in the preceding figure is selected, and the address parameter is a variable (addr in this example), then address format DDDDdd can replace DDDDh, as a solution of using address format DDDDh by variables. The following two functions read the same register.



short status, addr =1011

GetData(status, "Local HMI", RW_Bit, 10b, 1) // use DDDDh format to decode the constant "10b" GetData(status, "Local HMI", RW_Bit, addr, 1)// addr == 1011, use DDDDdd format to

decode the variable "addr"

9. When import tags in *Beckhoff ADS/AMS (Ethernet)* and *Beckhoff Embedded PC*

Address tag name	Address type	address	
MAIN.QW13726	Word	QW-13726	
MAIN.QW14	Word	QW-14	
MAIN.QW12	Word	QW-12	
MAIN.QW18	Word	QW-18	
MAIN.QW16	Word	QW-16	
MAIN.QW22	Word	QW-22	
MAIN.QW20	Word	QW-20	
MAIN.QW26	Word	QW-26	
MAIN.QW24	Word	QW-24	
MAIN.QW30	Word	QW-30	
MAIN.QW28	Word	QW-28	
MAIN.QW34	Word	QW-34	
MAIN.QW32	Word	QW-32	
MAIN.QW38	Word	QW-38	
MAIN.QW36	Word	QW-36	
MAIN.QW42	Word	QW-42	
MAIN.QW40	Word	QW-40	
MAIN.QW46	Word	QW-46	
MAIN.QW44	Word	QW-44	
MAIN.QW50	Word	Q₩-50	
MAIN.QW48	Word	QW-48	
MAIN.QW54	Word	QW-54	
MAIN.QW52	Word	QW-52	
M & IM O 18158	Word	0181-58	

drivers, users can select part or all of the tags to import in EasyBuilder.

If [Reserve existing tags] check box is selected, when import an existing tag, the following message appears.

er8000				(x
This ta			isting file	?	
Ж	No	Yes to all		No to all	
	er8000 This ta DK	M. This tag name already	MAIN.ID0 This tag name already exists. Replace ex	MAIN.ID0 This tag name already exists. Replace existing file	MAIN.ID0 This tag name already exists. Replace existing file ?

10. When import tags in *Beckhoff ADS/AMS (Ethernet)* and *Beckhoff Embedded PC*

drivers, the comments are displayed.

Image: Straight of the state of t		Address tag name		Address type	address	Comment	
Image: marked with a start	V				OX-2	Value3	
	the second secon	.deviceUp		Bit		Value2	
TwinCAT PLC Control - Maschine.pro* - [Globale_Yariablen]	1	.engine		Bit	QX-0	Value1	
			🏂 TwinGA	PLC Control -	Maschine, pro* -	[Globale_¥ariablen]	
	Sele	ct all Discard all			0001 VAR_GL 0002 Use 0003 dev 0004 dev 0005 time	arld AT %QX0.0: iceUp AT %QX0.1: iceDown AT %QX0.2: arUp: arDown:	BOOL:("Value2*

The tag comments are also displayed in Address Tag Library [Comment] column.

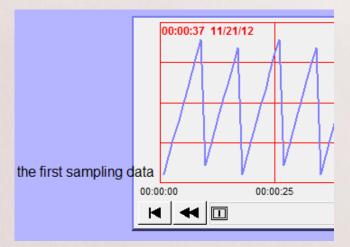
A	Address Tag Library						
	Custo	omized 💿 System					
	No.	Address tag name	PLC name	Addre	Address	Read/W	Comment
	1	.engine	Beckhoff ADS/AM	Bit	QX-0	Read/	Value1
	2	.deviceUp	Beckhoff ADS/AM	Bit	QX-1	Read/	Value2
	3	.deviceDown	Beckhoff ADS/AM	Bit	QX-2	Read/	Value3



11. [Relative time mode] is added to Trend Display object.

New Trend Display Object
General Trend Channel Shape
Transparent Frame : Background :
-Grid
Time/Date Relative time mode

If selected, the system will start counting time from the first data sample. The time displayed on the upper-left corner of the object and the range of X axis starts from "00:00:00", "00:00", "0" or "00000" (depending on the time mode selected). Refer to the figure below.



In [Relative time mode], [Time stamp output] can be enabled, as shown below. And it requires 4 word registers.

PLC name :	Local HMI		•	Setting
Address :		▼ 20		

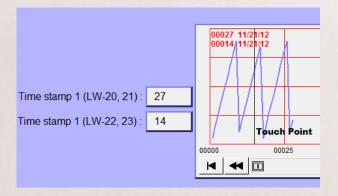
When this function is enabled, the sampling time of the latest data sample (DWORD type, in second) is output to the first two words in the designated register. When touching a point on the trend curve, the nearest sampling time to the touch point (DWORD type, in second), is output to the last two words in the designated register. When the designated register is 16-bit, the table below shows how the data of time stamp is stored in the register.

Address	The low word of the latest sampling time.
Address + 1	The high word of the latest sampling time.
Address + 2	The low word of the nearest sampling time to the touch point.
Address + 3	The high word of the nearest sampling time to the touch point

The following demonstrates the operation when [Time stamp output] is enabled.

[LW-20, 21]: 27 (seconds) displayed represents the latest sampling time.

[LW-22, 23]: 14 (seconds) displayed represents the nearest sampling time to the touch point.



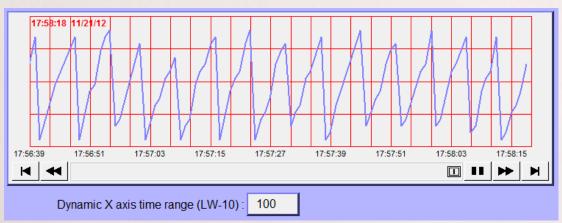
12. [Dynamic distance between data samples] and [Dynamic X axis time range] selections are added to Trend Display object for users to directly change the way the data is displayed on HMI.



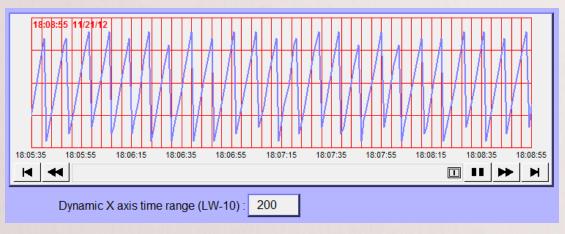
X axis time range : Default distance :	
📝 Dynamic X axis time 1	ange
PLC name : Local HMI	▼ Setting
Address : LW 🗸	10

When this function is enabled, a valid default value must be set, that is, when the value of the designated register is 0, Trend Display will still be calculated according to the value set here.

The following shows the trend curve displayed when X axis time range is set to 100.



The following shows the trend curve displayed when X axis time range is set to 200.





13. [Read/Write use different addresses] selection is added to Toggle Switch and Multi-State Switch objects. When this check box is selected, the read address and write address are designated to two different addresses, otherwise, the read and write target are designated to the same address.

New Multi-State Switch Object	
General Security Shape Label	
Comment : Mode : Value Offset : 0 Read Address PLC name : Local HMI	
PLC name : Local HMI Setting Address : LW 0 16-bit Unsigned	

14. System register [LW-9082 (16bit): auto logout time (unit: minute, 0: disable the function)] is added for setting the time to log out (in minutes). Auto logout is enabled in [System Parameter Settings] > [System Setting] tab. When the value in LW-9082 is 0, auto logout is disabled.

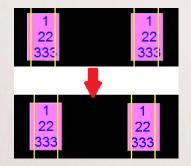
Extended	Memory	Printer/Back	up Server	e	Mail	Recipes
Device	Model	General	System Settin	ng	Security	Font
	Startup lan;	guage after redowi	nloading the projec	ct : La	nguage 1	•
Execute	Startup lan; init. MACRO wh		nloading the projec	ct: La	nguage 1	•
Execute Auto logout	init. MACRO wh	en power on	nloading the project	ct : La	nguage 1	•



Corrections

The following errors were corrected in this release:

- Fixed the problem when decompile the project that uses CANopen Slave driver, the object address setting is incorrect.
- Fixed the problem where the data format of channels in History Data Display object does not match the setting in Data Sampling object.
- 3. Fixed the problem where in Text object, square signs appear in the end of the text line when its next line is a space.
- 4. Fixed the problem where Macro String functions cannot use global variables.
- Fixed the problem when multi-lined text is center-aligned, the result displayed on HMI may be different from the original design.

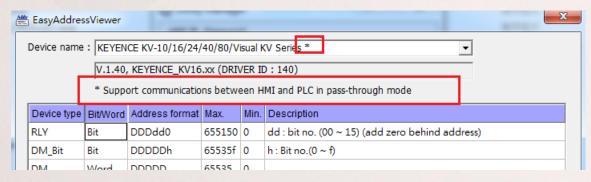


- Modified the value in [LW-9049: local hour (12-hour format)], at 12 midnight, the value in this system register is changed from 0 to 12.
- 7. Window no. 5 "PLC No Response", window no. 6 "Remote HMI Connection Fails", and window no. 8 "Storage Space Insufficient" are allowed to be deleted.
- Fixed the problem when the length of alarm message is longer than 255 words, the recorded message will not be written to Event Log. The correction is that the first 255 words will be written to Event Log.
- Fixed the problem where EasyBuilder cannot get tag data when using TIA Portal software V11 update 5 to edit S7-1200 program.



Drivers

1. In Ethernet pass-through mode, the communication between HMI and PLC can continue without stopping. The following lists the PLC models that support this function. These models are labeled with a "*" sign in EasyAddressViewer as shown in the following figure.



The PLC models:

CROUZET M3 (FBD) CROUZET M3 (LAD) **DELTA DVP FATEK FB Series** LS XEC/XGI CPU DIRECT Mitsubishi FXOs/FXOn/FX1s/FX1n/FX2 Mitsubishi FX2n Mitsubishi FX3u/FX3G Mitsubishi Q00J Mitsubishi Q02/02H Mitsubishi Q06H OMRON CJ/CS/CP **OMRON C/CQM1 Series** OMRON E5CN/E5EZ/E5ZN **Panasonic FP XINJE XC Series**



If the listed PLCs are selected, the following message appears in the device

properties dialog box.

Device Properties
Name : CROUZET M3 (FBD)
O HMI O PLC
Location : Local
PLC type : CROUZET M3 (FBD)
PLC I/F : RS-232
* Support communications between HMI and PLC in pass-through mode * Set LW-9903 to 2 to enhance the speed of download/upload PLC program in pass-through mode

[LW-9903: pass-through control] controls the communication mode in pass-through mode. When the value in LW-9033 is:

0: Continue the communication between HMI and PLC.

- 1: Pause pass-through mode.
- 2: Use pass-through mode but stop the communication between HMI and PLC.
- The Barcode driver is renamed as *Barcode/Keyboard (USB/COM)* which includes [Keyboard] mode.

Device Properties	
Name :	Barcode/Keyboard (USB/COM)
	○ HMI
Location :	Local Settings
PLC type :	Barcode/Keyboard (USB/COM)
Barcode Device / K	eyboard Settings
© Barcode	device
	🕑 Read byte limit

- 3. Improved the communication speed of FATEK FB Series driver.
- When import tags of *BACnet/IP* driver, the object names are displayed in Description column.



PLC name :	BACnet BACnet/IP	▼ Setting	
Tag :	(10,2)File.ObjectIdentifier(ID#75)		
	Name	Data Type	Description
_	⊡. Tags		
_	(8,342566)Device	Device	Device_0030
_		File	c:\etc\timest
_		File	c:\etc\overrid
_		File	c:\etc\symxml
_		File	c:\plc\default
_		File	c:\plc\default
_	(10,10)File	File	c:\plc\persist
	(10,5)File	File	c:\etc\persist
_		File	NVRAM\
		File	EEPROMp
		Schedule	SCHEDULE_0i
	⊕. (6,0)Calendar	Calendar	CALENDAR_0i
_	1 /2 00 PT - 1	D' T I	DINIA DV/ INIDU
_	Tag : (8,342566)Device		- OK Cance

- 5. Improved the communication speed between eMT3070A and Siemens S7-300 MPI.
- Fixed the problem where device type is not correctly matched when use *GE Fanuc Series 90-30 Ethernet* driver to replace *GE Fanuc SNP-X*.
- 7. Fixed the problem where PLC NO RESPONSE message is shown when CROUZET M3 (FBD) and CROUZET M3 (LAD) drivers use Data Transfer object to transfer certain number of words.
- OMRON CJ/CS/CP and OMRON CJ/CS/CP (Ethernet FINS/TCP) device type EM_Bit is added.
- 9. MEGMEET MC Series driver is added.
- 10. motrona MC700 driver is added.
- 11. motrona CT15012B driver is added.
- 12. ABB AC500 driver is added.
- 13. OMRON Ethernet/IP(NJ Series) driver is added.
- 14. Free Protocol Server (Ethernet) driver is added.

