JMobile V2.0



Main features in JMobile V2.0

- Redesign of Tag Dictionary
- Data Logging
- User Gallery for custom widgets
- Recipe improvements/enhancements
- JM4web
- SQL Interface
- OPC UA protocol
- Miscellaneous features and improvements





Tag Editor and Tag Dictionary

- New Graphical User Interface for Tag Dictionary
- Native support for complex data items typical in IEC 61131 PLC software (multi-dimensional arrays, structures)
- Recursively import tags

Data	Туре	*	Property	V
Application	Container		Tag name	A
PLC_PRG	Container		Device data type	В
⊿ myArray	Array[6] : BYTE		Array size	6
[0]	BYTE		Data type	
[1]	BYTE		Tag LIDI	-
[2]	BYTE			u
[3]	BYTE			
[4]	BYTE			
[5]	BYTE			
myComplex	Struct : ComplexType			
m_counter	INT			
4 m_point1	Struct : Point			
-x	INT			
	INT			
- y	Struct · Point			
⊿ m_point2	Sudet Point			
✓ m_point2 x	INT			
✓ m_point2 x y	INT INT	-		



Tag Editor and Tag Dictionary

- Structured view in «Attach to…» controls
- Table view of tag properties
- Search field/tag filter with regular expressions
- Simplified access to data transformations (scaling, bit indexing, color palette)

	Tag O Alias	🔘 System 🔘	Widget 🔘 Recipe						
₽- Search			Y Filter by: Data	•	Protocol:	Show all	▼	[Show a
Data	*	Туре	Tag name				Property		Value
CODESY	S V3 ETH:prot2	Container					A Driver		
Model: C	CODESYS 3	Container				_	Model		S7-1200
App	nication	Container					Protocol		Simatic
	D st Test1	Struct : st1					▲ Tag		
	TestVar1	BOOL	Application /PLC_PRG /Test /ar 1				Active		false
	- TestVar2	BYTE	Application/PLC_PRG/TestVar2				Commen	t	
	TestVar3	WORD	Application/PLC_PRG/TestVar3			-	Data Tvr	ne	short
	- TestVar4	DWORD	Application/PLC_PRG/TestVar4			=	Default	value	of the c
	TestVar5	INT	Application/PLC_PRG/TestVar5				Delauit	alue	
	- TestVar6	UINT	Application/PLC_PRG/TestVar6				Encoding	•	
	TestVar7	SINT	Application/PLC_PRG/TestVar7				Groups		
	- TestVar8	USINT	Application/PLC_PRG/TestVar8				Max valu	Je	
	TestVar9	LINT	Application/PLC_PRG/TestVar9				Min valu	e	
	- TestVar 10	DINT	Application/PLC_PRG/TestVar 10				PLC tag	name	
	- TestVar 11	UDINT	Application/PLC_PRG/TestVar11				R/W		R/W
	 TestVar 12 	REAL	Application/PLC_PRG/TestVar12				Rate		500
	TestVar 13	LREAL	Application/PLC_PRG/TestVar13			-	Scaling		None
Simatics	ZETH-mont1						· ·		
) Read Onl	y 🔘 Read/Write 🛛	Write Only	Items used: 27/10000	Array	index 0				
* Scaling									
By Formu	ıla			🔘 By R	lange				
1,00					Inpi	ut			Outpu
		x Value + 0,	00 📮 🏷	Min:	0		Mir	n: 0	
1,00	 The second second			Max	100		Ma	v: [10	00
				1-161AA	100			. [1	00
📓 Bit/Byte	Indexing								
Color Pa	lette								

Data logging



- New data logging tools for collecting and sharing more data at the HMI level
- Data acquisition and storage of multiple data items.
- Synchronous sampling of values. Same timestamp.
- Improved data export to .csv format. Single table/file for multiple data items with the same timestamp.

S	ampling time(s)	Number	of Samples		Storage Device
6	50	40000		-	Local (
Ti	rigger				
Ν	lone	<u>۲</u>			Path: Data/
s	ampling Filter				Buffer
C	urrent Sample value -	Previous Sample val	ue < - 0,00	×	
0	urrent Sample value - urrent Sample value -	Previous Sample val Previous Sample val	ue < - 0,00		Save a copy
0 0	urrent Sample value - urrent Sample value -	Previous Sample val Previous Sample val	ue < - 0,00		Save a copy t
0 •	urrent Sample value - urrent Sample value - Name Name 1	Previous Sample val Previous Sample val Tag Tag 1	ue < - 0,00		Save a copy of Save a
0 1	urrent Sample value - urrent Sample value - Name Name 1	Previous Sample val Previous Sample val Tag Tag1 Tag2	ue < - 0,00		Save a copy of Con
0 1 2	vurrent Sample value - urrent Sample value - Name Name1 Name2	Previous Sample val Previous Sample val Tag Tag1 Tag2	ue < - 0,00		Save a copy of Con
0 1 2 3	vurrent Sample value - urrent Sample value - Name Name1 - Name2 - Name3 -	Previous Sample val Previous Sample val Tag Tag1 Tag2 Tag5	ue < - 0,00		Save a copy o

04/11/2014	15:00:00	4.25	1200
04/11/2014	15:00:02	3.00	1201
04/11/2014	15:00:04	4.21	1201
04/11/2014	15:00:06	4.00	1201
04/11/2014	15:00:08	4.01	1201
04/11/2014	15:00:10	4.02	1201
04/11/2014	15:00:12	4.03	1201
			5

Data logging



- Action "DumpTrend" has a new option into "DumpCSVFormat"
 - Normal: backward compatibility with added support of multiple tags
 - Extended: new CSV made for extended trend

			-		A	В	С	D	Е	F	G	н	Ι	J	К			
1	Α	В	1	1	Timestamp	Name1	6	Name2	6	Name3	6	Name4	6	Name5	6		Р	Q
1	Туре	Value	Ti g	2		Value	Quality	Value	Quality	Value	Quality	Value	Quality	Value	Quality	be	Value	Quality
2	6	5	20 3	3	2015-09-26T08:59:25.000Z	5	192	1	192	100	192	0	192	2	192	6	2	192
3	6	15	20 /	4	2015-09-26T08:59:26.000Z	15	192	5	192	100	192	2	192	7	192	6	7	192
4	6	26	20 5	5	2015-09-26T08:59:27.000Z	26	192	8	192	100	192	4	192	13	192	6	13	192
5	6	36	21 (5	2015-09-26T08:59:28.000Z	36	192	11	192	100	192	5	192	18	192	6	18	192
6	6	40	21 -	7	2015-09-26T08:59:29.000Z	45	192	15	192	100	192	7	192	22	192	6	22	192
7	6	<u>5</u> 4	21 8	в	2015-09-26T08:59:30.000Z	54	192	18	192	100	192	9	192	27	192	6	27	192
8	6		20 g	9	2015-09-26T08:59:31.000Z	63	192	21	192	100	192	10	192	31	192	6	31	192
9	6	- Č	2 1	0	2015-09-26T08:59:32.000Z	70	192	25	192	100	192	12	192	35	192	6	35	192
10	6	77	2 1	1	2015-09-26T08:59:33.000Z	77	192	28	192	100	192	14	192	38	192	6	38	192
11	6	84	2 1	2	2015-09-26T08:59:34.000Z	84	192	31	192	100	192	15	192	42	192	6	42	192
12	6	89	2 1	3	2015-09-26T08:59:35.000Z	89	192	35	192	100	192	17	192	44	192	6	44	192
13	6	93	2 1	.4	2015-09-26T08:59:36.000Z	93	192	38	192	100	192	19	192	46	192	6	46	192
14	6	96	2 1	.5	2015-09-26T08:59:37.000Z	96	192	41	192	100	192	20	192	48	192	6	48	192
15	6	98 3	2 1	6	2015-09-26T08:59:38.000Z	98	192	45	192	100	192	22	192	49	192	6	49	192
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	A Type 2 6 3 6 4 6 5 6 6 6 7 6 8 6 9 6 10 6 11 6 11 6 13 6 13 6 14 6	A B 1 Type Value 2 6 5 3 6 15 4 6 26 5 6 36 6 6 400 7 6 54 8 6 60 9 6 77 10 6 777 11 6 84 12 6 99 13 6 93 14 6 96	A B I Type Value T 2 6 5 2 3 6 15 2 4 6 26 2 5 6 36 2 6 6 400 2 2 7 6 540 2 2 8 6 60 2 2 2 9 6 70 2 1 1 10 6 77 2 1 1 11 6 84 2 1 1 12 6 93 2 1 1 13 6 93 2 1 1 14 6 96 2 1 1 15 6 98 2 1 1	A B 1 I Type Value T 2 2 6 5 2 3 3 6 15 2 4 4 6 26 2 5 5 6 36 2 7 7 6 55 2 8 8 6 6 2 9 9 6 6 2 10 10 6 77 2 11 11 6 84 2 12 12 6 89 2 13 13 6 93 2 14 14 6 96 2 15 15 6 98 2 15	A B 1 Timestamp 1 Type Value T 2 2 6 5 2 3 2015-09-26T08:59:25.000Z 3 6 15 2 4 2015-09-26T08:59:26.000Z 4 6 26 2 5 2015-09-26T08:59:27.000Z 5 6 36 2 5 2015-09-26T08:59:27.000Z 6 6 26 2 5 2015-09-26T08:59:27.000Z 6 6 36 2 6 2015-09-26T08:59:28.000Z 6 6 402 7 2015-09-26T08:59:28.000Z 7 6 54 2 8 2015-09-26T08:59:30.00Z 7 6 54 2 9 2015-09-26T08:59:31.000Z 8 6 64 2 9 2015-09-26T08:59:33.000Z 9 6 44 2 10 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CSV as per previous version



User Gallery for custom widgets

- Create new gallery folders for User Widgets. Organize your widget design
- Create your customized widgets and save them to the User Widgets gallery
- Share/backup/restore customized widget designs with gallery export/import

User Widgets	
myGallery1 🗸 🗸	-
+ - 🕜 >] [<	



Alarms

• Remote acknowledgment of alarms. You can configure a mechanism to acknowledge alarms with commands from controllers connected to the HMI.

Tag	Remote Ack	Ack Notify	
Application/PLC	none 📃	none	Sho
Application/PLC	none	none	
Application /PLC	none	none	

• Value-triggered alarms. New trigger option for alarms. Alarm is triggered when the associated variable has the trigger value. The value can be attached to a tag.



Remote alarm acknowledge



Alarms x										
+ - ^ ~ *	🖻 💼 🔀	C> Alam	ms used 1/500)						
Name	Enable	Ack	Reset	Buffer	Trigger	Tag	Remote Ack	Ack Notify		
▶ <mark>Alarm1</mark>	✓			AlarmBuffer1	bitMaskAlarm:0	Tag1	none	none		

- Allow to acknowledge remotely: by PLC or by another HMI
- Two new columns have been added to alarms configuration:
 - Remote Ack: Tag used by the PLC to acknowledge the alarm. A transition of this tag
 from "zero" to a "non zero" value is an acknowledgment request
 - Ack Notify: Tag used by the HMI device to notify when the alarm is acknowledged from the device or from the PLC.
 0 = alarm triggered, 1 = alarm acknowledged
- Using the same tag both for "Remote Ack" and "Ack Notify" can connect more HMI to the same PLC and acknowledge the alarms from any HMI device

Remote alarm acknowledge





- 1. When an alarm is detected the HMI device set "Ack Notify" to 0 and all related actions are executed.
- 2. When the alarm is acknowledged (by HMI device or remotely), "Ack Notify" is set to 1
- 3. It's up to the controller set "Remote Ack" to 1 to acknowledge the alarm or reset it to 0 when the HMI device send a notification that the alarm has been acknowledged (Ack Notify = 1)



Improve operation with recipes

 Add/delete recipe data sets at runtime. Copy/paste recipe sets at runtime. No longer necessary to specify at design time the max number of sets for any recipe.

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- Move recipe sets in Recipe Editor
- Trace recipe actions in Audi Trail

∰ [®] AddRecipeDataSet()	Action	 Action Properties	
		- AddRecipeDa	ataSet
	DownLoadRecipe	RecipeName	#0 (myRecipe)
	UpLoadRecipe	CopyFrom	
	···· DownLoadCurRecipe	NewSetName	New
	UpLoadCurRecipe		
	ResetRecipe		
	DumpRecipeData		

Add/remove recipe sets at runtime



- Number of recipe set can be now changed at runtime (add/remove)
- Recipe editor allow to move recipe sets
- New actions to Add and Delete a Set
 - RecipeName: into which recipe add/delete the set
 - CopyFrom (opt): from which set copy values
 - NewSetName: default name for the new set

Recipe x											
+ - ^	< ► < >										
index	Element Name	Tag	Set1	Set0	Set2						
▶ 0	Element0	Tag1	0	0	0						
1	Element1	Tag2	0	0	0						
1-1		_									

Action List + - ^ V	Action Recipe DownLoadRecipe UpLoadRecipe WriteCurrentRecipeSet UpLoadCurRecipe UpLoadCurRecipe UpLoadCurRecipe ResetRecipe DumpRecipeData RestoreRecipeData DelRecipeDataSet DelRecipeDataSet Database Actions	THE	Ac	tion Properties AddRecipeDa RecipeName CopyFrom NewSetName	ataSet #0 (myRecipe) New	
					Ok	Cancel



Export/Import tags and alarms

- Data exported/imported using XML-based format
- Easy to edit with Microsoft Excel. Open documents "As an XML table ", change content before saving. Import data back to JMobile Studio
- Export/import complete alarm information
- Export/import complete tag information (Generic Importer)

	А	В	С	D	E	F	G	Н	I.	J	K	L	М
1	eventBuffer 💌	logToEventArchive 💌	eventType 💌	subType 💌	storeAlarmInfo	💌 name 💌	source 💌	alarmType 🔽	lowLimit 💌	highLimit 💌	value 💌	bitMask 💌	deviation 💌
2	AlarmBuffer1	TRUE	14	1	TRUE	Alarm1	Tag1	bitMaskAlarm	-32768	32767	0	1	50
3	AlarmBuffer1	TRUE	14	1	TRUE	Alarm2	Tag1	bitMaskAlarm	-32768	32767	0	2	50
4	AlarmBuffer1	TRUE	14	1	TRUE	Alarm3	Tag1	bitMaskAlarm	-32768	32767	0	4	50
5	AlarmBuffer1	TRUE	14	1	TRUE	Alarm4	Tag1	bitMaskAlarm	-32768	32767	0	8	50
6	AlarmBuffer1	TRUE	14	1	TRUE	Alarm5	Tag1	bitMaskAlarm	-32768	32767	0	10	50
7	AlarmBuffer1	TRUE	14	1	TRUE	Alarm6	Tag1	bitMaskAlarm	-32768	32767	0	20	50
8	AlarmBuffer1	TRUE	14	1	TRUE	Alarm7	Tag1	bitMaskAlarm	-32768	32767	0	40	50



JM4web

- Extend JMobile feature coverage for HTML5 web access
- Alarm Widget (Active Alarms and Alarms History)
- Configuration of Refresh Time and Inactivity Timeout

				Activo Ala	arme
Select	Name	State	Value	ACTIVE AIC	Time
	Alarm1	Triggered	1	09/10/20	15 11:4
	Alarm2	Triggered	1	09/10/20)15 11:4
	Alarm3	Triggered	1	09/10/20	15 11:4
[Check/Uncheck A	All Filter :	Hide Not Triggere	ed	
[Check/Uncheck A From : 1 To : 1	Filter : 10/09/15 - 11:43:33 10/09/15 - 11:44:33	Hide Not Triggere	arms History	Y 1 Min
<u> </u>	Check/Uncheck A From : 1 To : 1 Name	Filter : 10/09/15 - 11:43:33 10/09/15 - 11:44:33 State	Hide Not Triggere Al	arms Histon Duration :	y 1 Min Time
	Check/Uncheck A From : 1 To : 1 Name Alarm1	Filter : 10/09/15 - 11:43:33 10/09/15 - 11:44:33 State Triggered	Hide Not Triggere Al	arms History Duration :	y 1 Min Time 015 11:4
[From : 1 To : 1 Name Alarm1 Alarm2	Filter : 10/09/15 - 11:43:33 10/09/15 - 11:44:33 State Triggered Triggered	Hide Not Triggere Al Value	arms History Duration : e 09/10/2 09/10/2	y 1 Min Time 015 11:4



SQL Interface

Connects HMI and controls directly with SQL databases.

- Access remote SQL database
- Query data from tables, insert, change and delete data in tables by using SQL commands
- Requires SQL4automation connector <u>www.sql4automation.com</u>





Export/Import tags



- New button for export
- Export made into ".xml" file format
- Easy to open/edit with Microsoft Excel
- Make your changes
- Import back into Studio selecting "Generic importer"



As an XMI tab	you would like to	o open this file
As a read-only	workbook	
Use the XML S	jource task pane	



Export/Import alarms



	Alarms 🗙	۲	_						
ŀ	+ - ^ V 🔏 🛅 🔳 🔰 [> Alams used 1/500								
	Name	Enable	Аск	Heset	Buffer	Trigger	Tag	Remote Ack	Ack Notify
	Alam1	✓			AlarmBuffer1	bitMaskAlarm:0	Tag1	none	none
ľ									

• Like tags the same is for alarms

x	🕅 🕞 🕆 🔿 😴 🚽 🛛 Book1 - Excel								
F	TLE HOME	INSERT PAGE	LAYOUT F	ORMULAS	DATA REVIE	W VIE	W		
4	🚬 🔏 🛛 🖂	bri - 11 -		= = =	General 🔹	r∰ Conc	litional For	matting 🐐 🚡	Insert ,
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Clij	pboard 🗔	Font	Fa A	lignment	ធ Number ធ		Styles		Cells
A	11 -	\therefore \checkmark \checkmark f_x							
	Α	В	С	D	E	F	G	Н	Ι
1	eventBuffer 💌	logToEventArchive 💌	eventType 💌	subType 💌	storeAlarmInfo 💌	name 💌	source 💌	alarmType 💌	lowLim
2	n/a	TRUE	0	0	FALSE	n/a	n/a	n/a	
3	AlarmBuffer1	TRUE	14	1	TRUE	Alarm1	Tag1	bitMaskAlarm	

Multilanguage editor



- Language Code: This is an identifier, as defined from the ISO 639. Is used to match the language items when importing resources from external .xml files
- Fonts: number of fonts used inside project for language
- Size: amount in bytes of all fonts used for the language
- Storage: If font is downloaded into HMI or provided by removable storage

Mu	ItiLang X								
Langu	Languages Text								
+	Add Save Font Called Ca								
	Language Name	Language Code	Writing system	Default Font	Fonts	Size	Storage		
1	<lang1></lang1>	en-US	Any	Tahoma	2	1.40 Mb	Removable		
2	Lang2	ch	Simplified Chinese	SimSun	1	14.61 Mb	Removable		
3	Lang3	ae	Arabic	Simplified Arabic	1	121.71 КЬ	Removable		
4	Lang4	he-IL	Hebrew	Miriam	1	50.78 Kb	Removable		
5	Lang5	ka	Korean	Batang	1	15.51 Mb	Removable		

• Save Font: allow to "export" font file selected as "Removable". When user change language that require a removable font, a popup on HMI will ask to insert the USB/SD Card.



New project wizard options



- Added latest HMI models
- Indication of max project size
 - eTOP400 (UN20): 30 MB
 - eTOP504-6-7-7G (UN31): 30 MB
 - eTOP507M-7MG (UN30): 60 MB
 - eTOP510-10G-12-13-15-15G (UN30): 60 MB
 - eSMART (UN60): 60 MB
- Selection of Panel Memory only for UN30
- Select all options of display rotation
 - UN20/UN30/UN31 (Windows CE) does not rotate OS dialogs
 - UN60 (Linux) rotate also OS dialogs



New project properties options

EXOR

- JM4Web options:
 - Web inactivity timeout (s)
 - Refresh Time (ms)
- Target Zoom Factor: download a project made for a resolution to another HMI with same aspect ratio but different resolution without need to edit project

-	Plug-in	
	WebKit	false
	ActiveX	false
	PDF Reader	false
	VNC Server	false
Ξ	Behavior	
	Home Page	Page1.jmx +
	PageWidth	800
	PageHeight	480
	Display Mode	Landscape +
	Project Type	eTOP507 +
	Panel Memory	128MB +
	PageRequest	+
	CurrentPage	+
	SyncOptions	disable
	Hold Time (ms)	2000
	Autorepeat Time (ms	250
	Web Inactivity Timeo	600
	Refresh Time (ms)	3000
	Target zoom factor	1

Properties panel improvement

- Properties that can be "attached to a tag" now have the [+] icon visible
- At the bottom of properties panel it is shown how selected property can be accessed by Javascript



Pro	operties		ф.
5] 🖶 🗲		
-	Field : field1		
-	Frame		
	Show Frame	false	+
	Stroke Color	[0, 0, 0]	+
	Stroke Width	1	+
	Fill Color	none 🗌	+
=	General		
	Disable	false	+
	Blink	false	+
	Id	field1	
	Visible	true	+
	Opacity	1	+
	Lock	false	+
=	Position		
	X	428	+
	Υ	104	+
	CX	23	+
	CY	9	+
	Width	50	+
	Height	20	+
	Rotation	0	+



Studio IDE translation



- New languages for Studio interface
 - Deutsch
 - Chinese
- Require Studio restart



Communication protocols



- Added new communication status icon
 - Communication error > yellow triangle with esclamation mark
 - Tag value not yet received > blue circle with question mark (very useful on slow communication protocols)



Javascript editor

Enhanced JS editor

- auto-completion
- search/replace
- copy/paste
- undo/redo
- automatic identation

1:	Pag	e1_Main 16:Page17_Script ×	
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	2		
		N <i>A</i> ohile°	
	A	larm	
Т	hr	eshold	Day
			r au
			nct va
		3	va
•		III	
		Script	
1	⊿	<pre>function checkColor() {</pre>	
2		<pre>var Scale = page.getWidget("Bargraph3_scale3");</pre>	
3		<pre>var AlarmMin = Scale.getProperty("alarmMin");</pre>	
4		<pre>var Bargraph = page.getWidget("Bargraph1a2");</pre>	
5	⊿	<pre>if (Bargraph.value > AlarmMin) {</pre>	
6		<pre>Bargraph.fill = "rgb(255,000,000)";</pre>	
7		};	
8	4	if (Bargraph.value <= AlarmMin) {	
9		<pre>Bargraph.fill = "rgb(000,255,000)";</pre>	
10		37	
11		};	
12	-	runction Bargraphiaz_onDataUpdate(me) {	
14		cneckcolor();	
15	4	function Rangmanh2 scale2 or DataUndate(me) [
16	-	checkColor();	
17		checkcolor();	
18	4	function slider1 1needle4 onDataUndate(me_eventInf.	٥١
19	-	return false:	5,
20		}	
21		-	
Script	tЛ	Keyboard /	

Javascript editor



- No need to choose between "Actions" or "Javascript"
- Javascript is now one of "Actions" and Function name is customizable

Events				Action List	_	-	_			_	
OnMo	useClick Action		+	Action List	+ - ^ ~						
OnMo	useHold Action	Add Actions		🕷 js:butt	onStd5_onMo	Act	ion				,
OnMo	usePress Action	Add JavaScript				6	F 6		Action Properties		
OnMo	useRelease Action				Widget	Widget	*	JSAction			
						JavaScript ShowWidget SlideWidget BeginDataEntry TriggerIPCamera MoveIPCamera MoveIPCamera RefreshEvent ContextMenu ReplaceMedia Web Ston		File	page1.js		
							- Show Widget		Function	buttonStd5_onMouse	Click
							-				
										Ok	Cancel

As it was before

As it is now

Javascript editor



×匝匝

Font Tahoma

•

6 🖸 🖉 📎

- JS functions still available at bottom of the page
- New docked window
- Enhanced editor with
 - "Auto completion" for system functions
 - Dight alight to ala

Right Click Loois				
1 2 4 4 5 6 3 4 5 6 3 4 5 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 3 4 5 5 6 3 4 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	buttonStd5_onMouseC ct.getTag("Tag1"); Cut Copy Paste Select All Advanced	Script eventInfo)		
	Find/Replace Ctrl+F			
Script / Keyboard	Go to Line Ctrl+L	- <u> </u>	Script / Keyboard	5
Carpt Cleant Cheyboard	Tools •	in:		

1:Page1 ×

Action list



• New option to expand/collapse action groups

Action List		
Action List	Action Widget Web Media Player Mail Keyboard Page MultiLanguage Tag Trend/Graph Alarm Event System	Action Properties
		Ok Cancel

Download to Target



- Page file binarization introduced to improve HMI performance
 - Binarization is transparent to end-user
 - Page are converted into ". jmxb" file
 - Studio can convert ".jmxb" file to ".jmx" and viceversa
 - "Binary format" is an option of Download to Target dialog
- To simplify web project development and maintenance there is the new option in Download to Target dialog box
- Delete dynamic file has been renamed

Download to Target	×
Ready to download	
127 . 0 . 0 . 1 V	Download Close
- Advanced	
Download only changes	
Binary format	
Delete runtime dynamic files	
Download Web Project	

User management templates



- Added checkbox to show/hide password typed-in
- Only one template fits all HMI sizes

∑ser name Password	
	Back Sign In

User name: Password: Group:	ت Ehow password ت
Comments:	
Password User n	Password must contain number: must contain special character: nust change his initial password: Enable logoff time: Enable logoff time: Enable logoff time: Enable logoff time:
	Apply Cancel

Runtime context menu



- New items added to HMI runtime context menu::
 - Reload Project
 - Settings > Keep retentive data on project download

- New items added to PC Runtime context menu
 - Settings > Ports: to view/change listening ports of PC Runtime

ettings	×
Settings	Password
Context m	enu delay (s): 2
Sho	ow mouse pointer
She	ow busy cursor
🔽 Use	e keypads
Kee pro	ep retentive data on oject download
	OK Cancel
6 Settings	Password Ports
Change	Ports:
HTTP :	80
FTP :	21
	Availability

(restart required to apply changes)

OK

Cancel

Zoom In Zoom Out Zoom 100%	
Pan mode	
Reload Project	
Settings	
Project Manager	
Update	
Backup	
Logging	
Show Log at Boot	
LogOut	
Show system settings	
HMI Cloud Enabler	
About	

Mapping USB and SD memory to FTP

- Under Group Authorization Settings it is now possible to map "USB Memory' or "Storage Card" as FTP Folder
- USB Memory and SD Card will become accessible via FTP connection
- Very useful to retrieve Alarm, Trend or Recipe files dumped to external memories



Representation of values outside trend widget

• History Trend and Realtime Trend widget shows with a dash line if tag value is outside window

• I.E. tag attached to Trend shown here is an UnsignedByte with value between 0 to 255





Javascript: shared code



- The global variable "project", can be used to share JavaScript code between pages
- Variables and functions created into Project Properties tab, can be recalled from other project pages:

1:Project1 × 1:Page1	1:Project1 1:Page1 ×
	🗨 🔍 🔍 🥰 🛒 75% 🚽 🗶 🖓 🖓 🛨 🚽 🗄 🕂 🛨 🚍 🚍 🔚 #1 BtnStd5
VariablesWgt	🛅 🔁 🖄 🖛 🖨 🚺 🐼 🔗 Font Tahoma 💿 12 💌 🗛 💌 B 🛛 I
_PageMgr _IdalRecipe _IdalSysProp	
<pre>project.myGlobalVar = 25;</pre>	
3	1
4 / project.myGlobalFunction = function() {	<pre>2 function buttonStdl_onMouseClick(me, eventInfo) 3 4 {</pre>
6 var internal_value = 10;	<pre>4 alert ("Global variable is: " + project.myGlobalVar);</pre>
<pre>7 alert ("The internal value is: " +internal_value);</pre>	<pre>project.myGlobalFunction(); 6 }</pre>
9	

Javascript: read/write files handling



Function	Description
boolean fs.mkdir(dirPath);	<u>Create a directory</u> at specified path Return True on successful and False if fails
boolean fs.rmdir(dirPath);	<u>Remove a directory</u> at specified path Return True on successful and False if fails
<pre>object fs.readdir(dirPath);</pre>	<u>Reads contents of a directory</u> at specified path Returns an array containing file names of directory excluding '.' and '' or an empty list if fails
boolean fs.exists(strPath)	<u>Check if a file (or folder) exists</u> at the specified path Return True on successful and False if fails
<pre>object fs.readFile(strFile [,strFlag]);</pre>	Opens file in read mode and reads the contents as text file "strFile": string represents the file name "strFlag": "b" Reads and return as binary file Return True on successful and false if fails
<i>boolean</i> fs.unlink(strFile);	<u>Delete file</u> at the specified path Return True on successful and False if fails

Javascript: read/write files handling



Function	Description
fs.writeFile(strFile, fileData, [strFlag]);	Opens file in write mode and writes the data. If file is not present, will be created. "strFile": string represents the file name "fileData": data to be written in the file "strFlag": • "a": appends to the end of the text file • "r": replaces the contents of the text file • "ab": appends to the end of the binary file • "rb": replaces the contents of the binary file Return True on successful and false if fails
<i>object</i> fs.stat(strPath)	 <u>Retrieves information on the file/folder present at the specified path</u> "isFile": true if path is a file "isDir": true if path is a folder "size": size in bytes "atime": last read access time "mtime": write access time "perm": permissions (see at online help for permissions code)

Javascript: read/write files handling



Script var first run = true; function write to file onMouseClick (me, eventInfo) 4 { 4 5 var my file = "/Flash/QTHMI/mycsv.txt"; var file exist = fs.exists(my file); 6 8 if (first run) { 4 9 if (file exist) { fs.unlink(my file); 11 12 fs.writeFile(my file, project.getTag("text")+","+project.getTag("counter")+"\r\n", "r"); 13 first run = false; 14 } 15 4 else{ 16 fs.writeFile(my file, project.getTag("text")+","+project.getTag("counter")+"\r\n", "a"); 17 3 18

- Access to resources
 - Panel Flash memory: "/Flash/QTHMI"
 - USB Stick: "/USBMemory"
 - SD Card: "/Storage Card"

21		
22		<pre>function read_from_file_onMouseClick(me, eventInfo)</pre>
23	⊿	{
24		<pre>var my_file = "/Flash/QTHMI/mycsv.txt";</pre>
25		<pre>var file_exist = fs.exists(my_file);</pre>
26		
27	⊿	<pre>if (file_exist) {</pre>
28		<pre>var file_read = fs.readFile(my_file);</pre>
29		<pre>project.setTag("file_content", file_read);</pre>
30		}
31	⊿	else{
32		<pre>alert("File does not exist");</pre>
33		}
34		}

Retentive internal variables



- Internal dummy protocol with retentive functionality (16KB)
- Add a System Variables protocol and select Retentive Memory
- These variable will retained on power cycle and optionally on project download
- NOTE: Not available on eSMART and Runtime PC





Retentive internal variables

EXDR

- Option to clear retentive memory
 - Download project with option "Delete runtime dynamic files"
 - Execute action ClearRetentiveMemory
- Option to keep retentive memory
 - Into context menu check
 "Keep retentive data on project download"



New update package options



- Into Update Package is now possible to include:
 - Binary format: not yet available
 - Web Project: include JM4Web pages
 - User Files: include personal files for example PDF file used by PDF Viewer.

All files inside selected folder will be included into Update Package and copied into HMI root folder "\Flash\Qthmi\..."

Vpdate Pac	kage	×
Target	eTOP605	▼
Project		
🔽 HMI Runi	time & Plug-In	
✓ Binary fo	rmat	
🔽 Web Proj	ject	
Set Targe	et Password	
Vuser Files	S	
C:\Users\Us	er \Desktop \myfiles \	
Encrypte	d	
Location :		
C:\Users\Us	er \Desktop \UpdatePackage \	
		Create Cancel

Action begin data entry



- This action simulate an OnMouseClick event over a widget
- Useful with USB Barcode scanner attached to HMI:
- 1. OnActivate of a page execute BeginDataEntry of first field (field1)
- 2. User will "write" into field1 using USB Barcode scanner
- OnDataUpdate of field1 execute BeginDataEntry of field2
- 4. and so on...

🐡 BeginDataEntry()	Action		Action Properties
			- BeginDataEntry
	··· JavaScript ··· ShowWidget ··· SlideWidget ··· BeginDataEntry ··· TriggerIPCamera ··· MoveIPCamera ··· RefreshEvent ··· ContextMenu ··· ReplaceMedia ··· Web ··· Web	THE TRACE	Widget field1 Widget A mouse click (press + release) simulated on the selected widged

Action HMI Client upload/download



- Two additional actions to access USB Memory and SD Cards
- Using "UploadToHMI" and "DownloadFromHMI" is possible to Upload or Download file on external memories.
- Transfer is done via FTP using an FTP Client integrated into JMobile client.
- NOTES:
 - FTP access must be activated for User Group
 - USB or SD Card mapping must be defined into FTP Authorization



Widget variables: X and Y positions



- Available at AttachTo > Widget
- PageX > Touch
 - Page Touch X = X position referred to page
 - Page Touch Y = Y position referred to page
 - Screen Touch X = X position referred to screen
 - Screen Touch Y = Y position referred to screen
 - Touch Pressed = 0 if not pressed, 1 if pressed
 - Touch Status = string containing "Screen Touch X, Screen Touch, Touch Pressed"
- Allow PLC to know where/when user is touching screen

ield1.value
Source: 🔘 Tag 🔘 Alias 🔘 System 💿 Widget 🔘 Recipe
Search
▶ _AlarmsMgr
▶ _EventMgr
Backaround
Page Touch X
Page Touch Y
Screen Touch X
Screen Touch Y
- Touch Pressed
Touch Status
Read Only Read/Write Write Only Array index
f= Scaling

SSL support for send email action

- For email server that require authentication now is possible to select SSL encryption for SMTP (usually on port 465)
- SSL required by: Google, Yahoo, AT&T, Hotmail, Verizon, Mail.com
- TSL is still not supported (port 587) and is used by: Outlook.com, Office365, T-Online, 1&1

Email servers		
eMailServer1	SMTP:	Gmail_server
	Server:	smtp.gmail.com
	Server port:	465
		Requires authentication
	User name:	username
	Password:	
	Encryption:	SSL 🗸
		OK Cancel

45

JMobile V2.0 New Features Info

OPC UA Client

- Connection to OPC UA servers (PLCs, controllers)
- Supports Data Access
- Discovery OPC tags
- Easy to set-up gateway function using JMobile data transfer







License registration form

New license registration form

- Compatibile with active licenses
- Tested for use with Microsoft Windows 10



Manage target

Improved tool for managing and maintaining HMI target resources

- Manage Target also available as a stand-alone application; ideal for product maintenance
- Easily update HMI Splash Screen images. No format conversion required.

💣 Mana	ige Target	1.000		1000		
Target IP : : Files	192.168.43.2	•			Download	Upload
Bas	sic Mode					Restart
Select	Component	Device		Local Folde	r	Action
	BootLoader	UN31HSE02009			. ₹	±
	MainOS	UN31HSE0260M0152			•	±
	ConfigOS	UN31HSE0260C0152				<u></u>
	MainFPGA				•	±
	SafeFPGA				•	
	System Sup				•	<u></u>
	Splach					• •
Status	s Details Set	tings Device Information	Note			
Connection					Ac	tions
Port	:: 2100 sword:	Default	t			Test
	V Keep	stored				Restart

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JMobile software download form

New software download form

• E-mail notification of the download address

First name:		
Last name:		
Country:	Please choose one	•
Email*:		
Email Confirm*:		
Privacy Statement*:	Click here to see privacy statement O Yes O No	
	Send	

