

White Paper: How to Display G120 Drive Faults Directly on HMI with No PLC Programming

By Darren McCulley, PCC





Whitepaper: How to Display G120 Drive Faults Directly on HMI with No PLC Programming

- A. You should have a project with an HMI, and drive setup.
- B. The parameters in a Sinamics drive is accessed using tags via S7 communication. Generally, all parameters can be accessed via the HMI. It depends if a parameter is a read (r) parameter or settable (p) parameter whether a parameter can be written to or observed from HMI direct access. The figure below shows how to access the converter parameters in the HMI. The Parameter Number corresponds to the Data block number, and the Parameter Index corresponds to the Data Block Offset.



The following assignment is applied:

- Parameter number = data block number
- Parameter index = data block offset
- Data type (byte type tags are shown as DBB, Integers as DBW and DoubleInteger or Real type tags are shown as DBD).



1. Under your HMI connections add a connection with the Simatic S7300/400 driver and the station IP address of your drive, mine is 192.168.0.2.



2. Drag and drop an Alarm View into your alarm screen of the HMI.

🛉 📑 🔚 Save project 📇 🐰 🗉 🖹 🗙 🕤 🛎 (*	🛓 🐻 🔃 🖬 🔛 🖉 Go online 🦉 Go offline 🌆 📑 📭 🗶 🚍 🛄 -Search in projects - 🎲		lota	Ily Integrated Automation PORTAL
Project tree 🔲 🖣	1500 Motion Class New Demo → HML_1 [TP1200 Comfort] → Screens → Alarm Screen	_ # = ×	Toolbox	a 🗉 🕨
Devices			Options	
19 1		± Ш ± 🚔 ± 🝕 t= ± 🖪,	👌 🤽 🗊 🔟 Dark default value 🕶	
	SIEMENS	SIMALIC HMI	M Pasis objects	
 1500 Motion Class New Demo 				
Add new device			1 / 🔼 📥 🔵 🔲 A	A
Devices & networks				
Image: Dec_1 [CPU 1511TF-1 PN]				
 HMI_1 (TP1200 Comfort) 	SIEMENS	12/31/2000		
Device configuration	SIMATIC HM	10:59:39 AM		
Online & diagnostics				
Y Runtime settings				
Screens	No. Time Date Status Text	Acknowledge group	× Elements	
Add new screen				
Alarm Screen				💵 🛋 🔊 (L)
Root screen				
Screen management				
HM tags				
Connections				
🖂 HM alarms				
Recipes		E		
Historical data				
Scripts			trois	
5 Scheduled tasks			🖳 🗹 讷 🔚 🖽 🔽 🚍	📧 Q. 🍙 🖬 🖷
Cycles				
Reports			1 🛄 🔛 🎫	
Text and graphic lists		▼		
User administration				
Drive unit 1 [\$120 CU320-2 PN]		A 🗠 🗠		
Device configuration	n			
U Online & diagnostics				
Acceptance test				
Drive control				
Blue Wheel				
Red Wheel			·	
Traces	K	> 75%	1	
Ungrouped devices	Alarm view_1 [Alarm view]	🔍 Properties 🚺 Info 🚯 🖏 Diagnostics 👘 🗆 📼		
Security settings	Properties Animotions Events Toxts			
Common data	roperces Animacons Events Texts			
Documentation settings	Property list Table header fill pattern	^		
Languages & resources	Button border			
Online access	Button fill pattern	Gradient		
Card Reader/USB memory	Column beaders	Background color: 131, 132, 142 V		
- /	Columns	Gradient 1		
	Table beader border			
✓ Details view	Table header fill pattern	Color: 127, 128, 138		
	Alarm filter	Width: 15 🗘		
		Gradient 2	> Graphics	



3. You can adjust what alarms or faults you see in the Properties tab.

<	Ш			>	75%		
Alarm view_1 [Alarm view]				🔍 Properties	🗓 Info 🔒	Diagnostics	
Properties Animations	s Events Texts						
Property list	General						
General Appearance	Display						
Border	O Current alarm states	Alarm class	Enable				_
Layout	Pending alarms	Errors					
Display 🔳	Unacknowledged alarms	Warnings					
Text format		System					
Toolbar	 Alarm buffer 	Diagnosis events					
Button border		Acknowledgement					
Button fill pattern		No Acknowledgement					
Column headers	0						
Columns	O Alarm log						
Table header border							
Table header fill pattern 🐱							
<							

4. Open the HMI tag table and configure as below adding a tag for Fault Number and Warning number. Notice the addresses correspond to the parameter numbers for drive faults and alarms. Make sure the connection is the one you setup in step 1. Also make sure the Acquisition Cycle is set for Cyclic Continuous. You can set the Acquisition cycle time as desired.

K Siemens - C:\Users\dmcculley\Docume	nts\Automation\G120 Alarms to HM	/II\G120 Alarms to HMI						_ •
Project Edit View Insert Online Op	tions Tools Window Help	🍠 Go online 🖉 Go off	fine 🎝 🎵 🕼 🗙 🗔 🗍	Search in project>	1 Ga		Totally Integrated	Automation PORTAL
Project tree	G120 Alarms to HMI → HMI_1	[TP900 Comfort] > H	MI tags → Default tag tabl	e [4]				_ # = X
Devices							📒 HMI tags 🛛 📳	System tags
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	≠ → ₩ %							
	Default tag table							
Devices & networks	Name	Data type	Connection PLC nam	e	PLC tag	Address	Access mode	Acquisiti
• 🛅 PLC_1 [CPU 1511TF-1 PN]	Fault Number	Int	Connection 1		<undefined></undefined>	%DB947.DBW0	absolute access>	100 ms
HMI_1 [TP900 Comfort]	HMI Tag 1	Int	<internal tag=""></internal>		<undefined></undefined>			15
Device configuration	Warning Number	Int	Connection 1		<undefined></undefined>	%DB2110.DBW0	<absolute access=""></absolute>	100 ms
Q Online & diagnostics	<add new=""></add>		_					
Y Runtime settings								
Screens								
Add new screen								
Root screen								
Screen management	<							>
🕶 🚂 HMI tags	Discrete alarma Analar	alarme Legging t						
how all tags	Discrete alarms Analog	alarnis Logging t	ags					
Add new tag table	ID Name	Alarm text	Alarm class	Trigger tag Trig	ge Trigger address HMI acl	nowl HMI a HMI ac	knowl Report	
Default tag table [4]	<add new=""></add>							
2 Connections								
HMI alarms	Fault Number [HMI_Tag]					O Properties	1 Info (1) Diagnostic	
Recipes								
III Historical data	Properties Events T	exts						
Scripts		ottings						
5 Scheduled tasks	3	etungs						
Cycles	General	Settings						
Reports	Settings		Custia continuous					
Text and graphic lists	Range	Acquisition mod	e: Cyclic continuous					
✓ Reference projects	Linear scaling	Acquisition cycl	le: 100 ms					
	- Values .							
	Comment	Update						
• waupaca isooistarter Maintenan	Multiplexing	Undate I	ID:					
	Good Manufacturing Pra	oputer						
<								
At Details view	-							
• Details view								
	< III >							



5. The fault and alarm list have to be converted in to Excel format using the XML parser. The current faults and alarms can be found at Siemens Industry Online Support: https://support.industry.siemens.com/cs/products?mfn=ps&lc=en-WW. Information on how to use and download the XML Parser is at the following link: <a href="https://support.industry.siemens.com/cs/document/77467239/transforming-warning-and-error-messages-of-a-sinamics-drive-with-the-aid-of-the-xml-parser-and-integrating-them-into-a-step-7-hmi-project?dti=0&lc=en-WW Download and install the XML parser or download the Excel formatted fault list from the PCC

website.

6. Under the Reports menu item, create a Text List for fault and warning messages of the drive called Faults and Alarms.

Project tree 🔲 🖣	G120 Alarms to HMI → HMI_1 [TP900 Comfort] → Text and graphic lists	_∎≡×
Devices		Text lists 👔 Graphic lists
1 III III III III III III III III III I		=
	Text lists	
🕨 🕅 Screen management	In Name Selection Comment	
🔻 📜 HMI tags	1: Faults and Alarms Value/Range	
blow all tags	<add new=""></add>	
📑 Add new tag table		
🝯 Default tag table [3]		
2 Connections		
MII alarms	Taxt list aptrice	
Recipes		
🔛 Historical data 🛛 🗏	■ Default Value Text	
Scripts	<add new=""></add>	
5 Scheduled tasks		
Cycles		
 Reports 		
Add new report		
Text and graphic lists		
🙀 User administration		
Drive_1 [G120 CU240E-2 PN]		
Device configuration		
Conline & diagnostics		
😚 Parameter		
Commissioning		
 Acceptance test 		

7. Double click on <Add new> then click the drop down and change the type to Single value.

emens - C:\Users\dmcculley\Documents	Automation/G120 Alarms to HMI/G120 Alarms to HMI	
ct Edit View Insert Online Option	, Tools Window Help	Totally Integrated Automation
Save project 📑 🐰 🗄 💷 🗙		PORT
roject tree 🛛 💷 🖣	G120 Alarms to HMI HMI_1 [IP900 Comfort] Iext and graphic lists	_ = •' =
Devices		1. Text lists 🔒 Graphic lists
ž 📖 🖻		E
	Text lists	
🕨 🔯 Screen management	Name A Selection Comment	
🔻 🔚 HMI tags	1: Faults and Alarms Value/Range	
a Show all tags	<add new=""></add>	
📑 Add new tag table		
💥 Default tag table [3]		
2 Connections		
🖂 HMI alarms		
Recipes	lext list entries	
🔛 Historical data 🛛 🗏	Default Value V Text	
Cripts		
5 Scheduled tasks	Type: Value:	
Cycles	Single value	
 Reports 		
Add new report	× ×	
🔛 Text and graphic lists		
💱 User administration		
Drive_1 [G120 CU240E-2 PN]		
Pevice configuration		
😧 Online & diagnostics		
🚰 Parameter		
R Commissioning		
 Acceptance test 		
🕨 🔀 Traces	Text list entry 1 [Text list entry]	Properties
Reference projects	Control Late	
1	General Texts	
Waupaca 1500T Starter Maintenance #2	General	
	General	
	Entry	
II >	Default: Min: Max:	
Details view	Value: Bange V 0 1	
	iext:	
Portal view	🍰 Drive_1 🐾 Connections 🔲 Root screen 🔄 Alarm Screen 💥 Default tag t 🔛 Text and gra	🔝 😪 Project G120 Alarms to HMI opened.
P Type here to search	💙 🦁 Transforming 🛂 Inbox - Darre 📙 Drive Faults to 👫 Siemens - C 💘 Drive Faults T	🚰 Drive to HMI 🗵 S120 Faults.xls ヘ 🗐 (小) 3/30/2020



8. Highlight all the faults and alarms in Excel and copy them.

							G120 Alarms.xlsx	- Excel					Darren McCulley	D E	-	σ×
	la Homa lorg	rt Dago Laugurt	Formulas Data	Paviau Viau			tuou want to do							_		0 0
ri.	e Home mse	n raye Layour	Politiulas Data	Keview view	нер асковат	¥ Teli file wila	t you want to do		_							≻4 Share
	📕 🔏 Cut	Calibri	∨11 ∨ A A	(= = = *	🖓 🔹 🦂 🖓 Wrap Text	General	\sim		No	ormal	Bad		🖶 🏋 🗐	∑ AutoSum	₹ <mark>A</mark> T	ρ
Pas	te Copy -	BIU	- 100 - A	. = = = =	= = Merge & C	enter - \$ - 0	× • • • • •	Conditional Fe	ormat as Go	od	Neutral	i ∐	Insert Delete Format	🕹 Fill -	Sort &	Find &
	 Format Painte 	r	-					Formatting *	Table -			~	* * *	🛷 Clear +	Filter -	Select *
	Clipboard	12	Font	12	Alignment	15 N	lumber 15			Styles			Cells	E	Editing	~
	℃ - ⇔ - ≏															
		~	4000													
B3	· · ·	$\land \checkmark Jx$	1000													*
	A	В			С						D					
1	Duplicates Error N	umber decimal	Long Name					Cause							Remed	ly
2																
3		1000	F01000 - Internal so	ftware error				F01000 -	An internal s	oftware error	r has occurred. F	ault value ((r0949, interpret hexa	decimal): Only	fc F01000) - evaluate
4		1001	F01001 - FloatingPo	int exception				F01001 -	An exception	n occurred du	ring an operation	with the F	FloatingPoint data typ	e. The error m	ay F01001	l - carry ou
5		1002	F01002 - Internal so	iftware error				F01002 -	An internal s	oftware error	r has occurred. F	ault value (r0949, interpret hexa	decimal): Only	tc F01002	2 - carry ou
5		1003	F01003 - Acknowled	agment delay when	accessing the memo	ry		F01003 -	A memory a	rea was acces	ssed that does no	ot return a	"READY". Fault value	(r0949, interpr	et F0100:	s - carry ou
-		1004	N01004 (F, A) - Inter	mai software error				N01004 (r, A) - An Inte	ernal software	e error has occur	red. Fault V	value (r0949, nexaded	imal): Univ for	- IF NU100	4 (F, A) - re
0		1005	F01005 - File upload	J/download error				F01005 -	I ne upioad c	or download c	of EEPROM data	was unsuce	cessrui. Fault value (n	1949, Interpret	n F0100:	D - Save a st
10		1009	A01009 (N) - CO: CO	unite over	temperature			A01009 (I	i) - The tem	perature (roo:	s found	troi module	e (control onit) has e	xceeded the sp	E0100	9 (N) - criec
11		1010	F01010 - Drive type	the second				F01010 -	An unknown	offware orror	as round.	oult volvo /	(r0040 interpret desir	nally Only for i	P01010	- replace
12		1015	A01016 (E) Eirmut	are changed				A01016 /	An internal s	ontware error	file in the directo	ault value (ro949, interpret decir	nai). Only for i	or 40101	5 (E) For th
12		1010	A01017 - Compone	nt lists changed				A01017 -	On the mem	one minware	file in the direct	opy /SIEME	Sally changed on the	or /ADDON/SI	NU A0101	7 - For the f
14		1017	F01018 - Booting h	as been interrunted	several times			F01017 -	Module hoo	ting was inter	runted several ti	mae Acar	consequence the mor	ule hoots with	+ E01018	R - carror ou
15		1010	A01019 - Writing to	the removable dat	a medium unsuccess	iol.		401019 -	The write ar	cess to the re	movable data m	edium was	unsuccessful	fuic boots with	40101	- Remove
16		1019	A01019 - Writing to	RAM disk upsucce	eful	u		A01020 -	A write acce	es to the inter	roal RAM diek we		eeful		A0102	0 - Adapt th
17		1020	A01021 - Removabl	le data medium as l	USB data storage mer	lium from the PC i	ised	A01021 -	The remova	ble data medi	ium is used as US	B data stor	rage medium from a l	C As a conser	UE A0102	1 - Deactiva
18		1023	E01023 - Software t	timeout (internal)	oob aata otorogo mot			F01023 -	An internal s	oftware time	out has occurred	Eault valu	ie (r0949, interpret de	cimal): Only fo	or F01023	- carry ou
19		1028	A01028 (E) - Config	uration error				A01028 () - The para	meterization t	that was downlo	aded was a	generated with a diffe	rent module t	vp A0102	B (E) - Save
20		1030	F01030 - Sign-of-life	e failure for master	control			F01030 -	or active PC	C master cont	rol, no sign-of-lif	e was rece	eived within the monit	oring time. Th	e i F01030) - Set the n
21		1033	F01033 - Units chan	geover: Reference	parameter value inva	lid		F01033 -	When chang	ing over the u	inits to the refer	ed represe	entation type, it is not	permissible fo	r a F01033	3 - Set the v
22		1034	F01034 - Units chan	geover: Calculation	n parameter values at	ter reference valu	e change unsuce	essful F01034 -	The change	of a reference	e parameter mea	nt that for	an involved paramet	er the selected	v F01034	4 - Select th
23		1035	A01035 (F) - ACX: Pa	arameter back-up f	ile corrupted			A01035 (F) - When the	e Control Unit	t is booted, no co	mplete dat	ta set was found from	n the paramete	er A0103	5 (F) - Dow
24		1036	F01036 (A) - ACX: Pa	arameter back-up f	ile missing			F01036 (A) - When do	wnloading the	e device paramet	terization, a	a parameter back-up	file PSxxxyyy.A	C: F01036	5 (A) - If you
25		1038	F01038 (A) - ACX: Lo	oading the paramet	er back-up file unsuc	cessful		F01038 (4) - An error	has occurred	when downloadi	ng PSxxxyy	y.ACX or PTxxxyyy.AC	X files from th	e F01038	3 (A) - if you
26		1039	F01039 (A) - ACX: W	riting to the param	eter back-up file was	unsuccessful		F01039 (A) - Writing to	o at least one	parameter back	-up file PSx	exxyyy.*** in the non-	volatile memo	ory F01039) (A) - chec
27		1040	F01040 - Save parar	meter settings and	carry out a POWER O	N		F01040 -	A parameter	has been cha	anged that requir	es the para	ameters to be backed	up and the Co	nt F01040) - Save par
	> Sheet1	(+)						501010	1		1 1 1	1.1		· · ·		•
Selec	t destination and press	NTER or choose Pas	ste							Average: 1186	5.59104 Count: 14	28 Sum: 42	236016	<u> </u>	1	+ 100%
Ŧ		e to search		0 🤇	Transforming 🛛	Inbox - Darre	Drive Fault	ts to 🏭 Sie	mens - C	w Drive Fa	aults T 🛃 C	vive to HMI	I 🗴 G120 Alarm	sx ^ 🖼	(⊅) 11:15	AM 📮

9. Right click in the Value box and choose paste and overwrite the values.

ject tree	🗉 📢 G120 Alarn	ns to HMI 🕨 H	MI_1 [TP900 Comfort]	Text and graphic li	sts				_ • •
evices								1 Text lists	🖹 Graphic list
									1
	Toxt list								
3 G120 Alarme to HM	Text list	\$		Calendian	C				
Add new device	1. Faulte	and Alarme		Value/Panee	comment				
Bevices & networks	2. Faults	anu Alarnis		value/kalige					
PIC 1 [CPU 1511TE-1 PN]	000	inews.							
MMI 1 [TP900 Comfort]									
Device configuration	-								
Online & diagnostics									
Y Runtime settings									
Greens									
Screen management	Text list	entries							
🕨 🔚 HMI tags	Defau	It Value				Text			
Connections	9 0	0			-				
🖂 HMI alarms		<add new=""></add>	Insert object			•			
🔄 Recipes			X Cut	Ctrl+X					
III Historical data			💷 Copy	Ctrl+C					
Scripts			📋 Paste	Ctrl+V					
5 Scheduled tasks			Copy to Excel	format					
Cycles			× Delete	Del					
▼ 🗐 Reports	Tout Pat or		Rename	F2			152) - · · ·		
📑 Add new report	Text_list_ei	ntry_1[1ext_1	st_entr	ice information Shift+E11	-		Q Properties	🚺 Info 🚺 🖞 Diag	nostics
🔛 Text and graphic lists	General	Texts			-				
🙀 User administration			Q Properties	Alt+Enter					
Drive 1 [G120 CU240E-2 PN]	~		General						
Reference projects	General		Entry						
5			2	_					
Waupaca 1500T Starter Maintenance #2			Defau	lt: 📋					
			Valu	e: Single value 💌	0	•			
			, Tex	d:					
Details view									



	120 Alarms to HMI →	HMI_1 [TP900 Comfo	rt] 🕨 Text and graph	nic lists					_ 7 5
Text lists Selection Comment Iname Selection Comment Paulis and Alarms ValueRange Image: Selection Comment Image: Selection Image: Selection Text list entries Image: Selection Image: Selection Image: Selection Image: Selection Image: Selecion Image:								E Text lists	🖞 Graphic lists
Text list entries Text list entries <th>•</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>E</th>	•								E
In Name A Selection Comment <	Text lists								
Series Series <th> Name 🔺</th> <th></th> <th>Selection</th> <th>Comment</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Name 🔺		Selection	Comment					
odd news Text list entries Default 1000 Foltool Foltool <td< td=""><td>E Faults and Alarms</td><td></td><td>Value/Range</td><td>•</td><td></td><td></td><td></td><td></td><td></td></td<>	E Faults and Alarms		Value/Range	•					
Text list entries Default 1000 F01000 F01000 F01000 F01001 F01002 F01003 F01004 F01005 F01005 F01001 F01001 F01001 F0101 F	<add new=""></add>								
Text list entries Default 1000 000 0101 0102 0103 0104 0105 0106 0107 0108 0109 0109 0109 009 0101 0102 0103 0104 0105 0105 0109 0109 0109 0109 0109 0101 0101 0102 0109 0109 0109 0101 01									
Text Default Value Default Text Di00 F01000 - Internal software error Di01 F01001 - FloatingPoint exception F01002 F01002 - Internal software error F01003 Acknowledgment delay when accessing the memory F01004 F01003 - Acknowledgment delay when accessing the memory F01005 F01005 - File uploadidownload error F01005 F01005 - File uploadidownload error F01005 File uploadidownload error A01009 (N) - CU: Control module overtemperature Ext. Ist. entry2 Foroperties General General Entry Default: Value: Single value Intervention Into @ Value: Single value Intervention Into @ Text: F01001 - FloatingPoint exception									
Text list entries Default Value Text 1000 F01000 - Internal software error 101 F01001 - FloatingPoint exception 102 F01002 - Internal software error 103 F01003 - Acknowledgment delay when accessing the memory 104 N01004 (F, A) - Internal software error 105 F01005 - File upload/idownload error 109 A01009 (N) - CU: Control module overtemperature ext_list_entry_2 [Text_list_entry] Properties General Fortune Intry Default: Value: Single value 1001									
Text list entries Default Text 1000 F01000 - Internal software error 1001 F01001 - FloatingPoint exception 1002 F01002 - Internal software error 1003 F01003 - Acknowledgment delay when accessing the memory 1004 N01004 (F, A) - Internal software error 1005 F01003 - Acknowledgment delay when accessing the memory 1006 N01004 (F, A) - Internal software error 1007 1004 1008 F01003 - Acknowledgment delay when accessing the memory 1009 N01004 (F, A) - Internal software error 1009 R01009 (N) - CU: Control module overtemperature ext_list_entry_2 [Text_list_entry] @ Properties General General Entry Default: Value: Single value 1001 Text: P01001 - FloatingPoint exception									
Image: Second	Text list entries								
1000 F01000 - Internal software error 1001 F01000 - Internal software error 1002 F01002 - Internal software error 1003 F01003 - Acknowledgment delay when accessing the memory 1004 N01004 (F, A) - Internal software error 1005 F01005 - File upload/download error 1009 A01009 (N) - CU: Control module overtemperature	Default Value 🔺				Text				
1001 1001 1002 1002 1003 1004 1004 1005 1009 1009 1009 1009 1009 1009 1009 1009 1001 1009 1000	1000				F01000 - Interna	l software error			
Folio02 Folio02 Folio03 Folio03 Folio05 File uploadidownload error Folio05 File uploadidownload error Folio01 Folio01 Folio01 Folio01 Folio01 Folio01 Folio01 <	1001				F01001 - Floating	gPoint exception			
Internal software error Internal software error Into	1002				F01002 - Interna	l software error			
General Image: Control module overtemperature General General Image: Control module overtemperature Image: Control module overtempe	1003				N01004 (E. A) - It	viedgment delay when	accessing tr	ie memory	
A01009 (N) - CU: Control module overtemperature A01009 (N) - CU: Control module overtemperature A01009 (N) - CU: Control module overtemperature General General General General General General Default: Value: Single value Text: F01001 - FloatingPoint exception	1004				F01005 - File upl	load/download error			
General General General General General General Default: Value: Single value Text: F01001 - FloatingPoint exception	1009				A01009 (N) - CU:	Control module overte	emperature		
General Texts General General General General General General Texts F01001 - FloatingPoint exception Text: F01001 - FloatingPoint exception	ext list entry 2 [Text	list entry]				Q Pr	operties	Linfo 🔒 🖳 Diagnos	tics
General General General General General Texts	Conoral Toxts	1					operates		
General General General General General General Control of the second of	General Texts								
General Default: Default: Value: Single value Value: 1001 C		General							
Default: Value: Single value Value: 1001 Text: F01001 - FloatingPoint exception	General	Entry							
Value: Single value Value: Text: F01001 - FloatingPoint exception									
Text: F01001 -FloatingPoint exception		4 Dei							
Text: F01001 - FloatingPoint exception		- Va	lue: Single value	▼ 1001	-				
		1	Text: F01001 - FloatingF	oint exception					

10. Under HMI alarms go to the Analog Alarms tab and add a new alarm.

Project tree		G120 Alarms	to HMI 🕨 HM	_1 [TP900 C	omfort] 🕨 HMI alarm	ns					_ # # ×
Devices					Discrete alarms	Analog alarms	Conti	roller alarms	System events	Alarm classes	(1) Alarm groups
 ````	💷 🔂	⇒ ►								-	
		Analog ala	rms								
Devices & networks	^	ID	Name	A	larm text	Alarm class	Trigger tag	Limit	Limit mode Rep	ort	
PLC_1 [CPU 1511TF-1 PN]		1	Analog_	alarm_1		Errors	. <no tag=""></no>	[and	Higher 💌		
HMI_1 [TP900 Comfort]		<add net<="" td=""><td>v&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></add>	v>								
Device configuration											
Q Online & diagnostics											
Y Runtime settings											
Screens	-										
Screen management											
HMI tags											
Connections											
HMI alarms											
📑 Recipes											
III Historical data											
Scripts											
5 Scheduled tasks											
Cycles											
Reports											
Add new report											
Text and graphic lists											
User administration		Analog_alarm							Properties	🔁 Info 追 🗓 Dia	gnostics = = = =
Drive 1 [G120 CU240E-2 PN]		Properties	Events	Texts							
Ungrouped devices		P									
Security settings	~	-		General							
✓ Reference projects		General									
		Trigger		Settings							
		Info text			Alarm text:						
Waupaca 1500T Starter Maintenance #2		Miscellaneou			ID: 1						
			-		Alarma da sur C						
			2		Marm class: Errors						
		-			Alarm group: <no al<="" td=""><td>arm group&gt; 🔳 📖</td><td></td><td></td><td></td><td></td><td></td></no>	arm group> 🔳 📖					
Details view					Name: Analog	g_alarm_1					
											~



11. In the Inspector Window go to the Properties tab then General. Type in the name of the drive object that the alarm pertains to, my first one is for my Drive. You can add any text you want to display when this alarm is triggered.

G	120	Alarms to	нм	L ► HM	1 [TP900	Comfor	t] ▶ HM	Lalarms									a e x
		Discrete a	larn	ns 🕞	Analog al	arms	Cont	troller alarms	Syst	em e	events	<b> </b>	Alarm (	classes	🖞 Alaı	m gr	oups
	• 🖪	-															
	An	alog alarm	IS														
		ID		Name		Alarm tex	ĸt		Alarm class	;	Trigger tag	_	Limit		Limit mode		Report
	×	1	٢	Warning	s	Drive 1:		,	Warnings		Warning N.		0	Const +	Higher	-	
	2	2 chalal maxim		Faults		Drive 1:	<text list,<="" th=""><th>Faults and Alarms</th><th>Errors</th><th></th><th>Fault Numb</th><th>ber</th><th>0</th><th></th><th>Higher</th><th></th><th></th></text>	Faults and Alarms	Errors		Fault Numb	ber	0		Higher		
		<add new=""></add>															
	5		-		_	_	_					1		(10)		_	/
W	arni	ngs [Analo	og_a	alarm]					<u> </u>	Pro	perties	Ц	Info	🛛 🕹 Dia	gnostics		
	Prop	oerties	Ev	ents	Texts												
					General												^
	Gen	eral			Generar _												
	Trigg	er			Setting	IS											=
	Info	text		-		Al	arm text:	Drive 1:									_
	Misc	ellaneous		•			ID:	10/512	٩								
				-		Alar	m class:	Warnings									
						Aları	m aroup:	No alarm grou	>								
							group.										~



12. Right click on the Alarm Text window again and this time choose Insert text list field...

Frodectine       G120 Alarms to HM       HM       I (19900 Confort) > HM alarms       Find and replace         Device       Image: Controller alarms       Analog alarms       Controller alarms       System events       Alarm classes       Mammigues       Options         Image: Controller alarms       Analog alarms       Image: Controller alarms       System events       Alarm classes       Mammigues       Options         Image: Controller alarms       Analog alarms       Image: Controller alarms       System events       Alarm classes       Mammigues       Options         Image: Controller alarms       Analog alarms       Image: Controller alarms       System events       Alarm classes       Mammigues       Options         Image: Controller alarms       Diverts       Image: Trigger tag       Image: Trigg	Edit View Insert Online Optio	ns Tools Window	Help	nline 🖉 Go offline 🎝 🌆 🕅	🗙 📃 🛄 🧭 Search in projects 🔒		Totally Integrated Automatic	n TA
Devices       Options       Options         Image: Discrete alarms       Analog alarms       Controller alarms       System events       Alarm groups       Options         Image: Discrete alarms       Analog alarms       Image: Discrete alarms	ect tree	G120 Alarms to H	MI ► HML1 [TP90	D Comfort] > HMI alarms		×	Tasks	
Image: Stand Stand   Image: Stand <th>evices</th> <th>Discrete ala</th> <th>rms Analog a</th> <th>larms Gracontroller alarms</th> <th>System events</th> <th>lasses 🗇 Alarm groups</th> <th>Options</th> <th></th>	evices	Discrete ala	rms Analog a	larms Gracontroller alarms	System events	lasses 🗇 Alarm groups	Options	
Analog alarms     Analog								E
• Interview		Appleg plarms						_
Made ned voice     Made ned voice     Divice 1:     Warnings     Divice 2:     Fault     Fault      Fault     Fault     Fault     Fault     Divice 2:     Fault     Divice 2:     Fault     Fault     Fault     Fault     Fault     Fault	G120 Alarms to HM		Name	Alarm text	Alarm class Trigger tag	Limit mode Peport	<ul> <li>Find and replace</li> </ul>	-
Devices 6 networks     Devices 6 network	Add new device	1	Marnings	Drive 1:	Warnings Warning N 0	Inde Higher	Find	
RC_1 [CP1 1511F-1 Pk]     General	Bevices & networks		Faults	Drive 1: <text alarm<="" and="" faults="" list,="" td=""><td>Errors Fault Number 0</td><td>Higher</td><td>Thu.</td><td>Te</td></text>	Errors Fault Number 0	Higher	Thu.	Te
Hell 1 [Treod Configuration     Device configurating     Device configuration     Device configuration     Device co	PLC 1 [CPU 1511TF-1 PN]	<add new=""></add>						
Device configuration     Device configura	HML_1 [TP900 Comfort]						Whole words only	
Notline & diagnostica   Puntime settings   Socrean management   Socrea	Device configuration						Match case	
Burdine settings     Burdine setting     Burdine	😵 Online & diagnostics						Find in substructures	
Screen:     S	Y Runtime settings						Find in hidden texts	
<ul> <li></li></ul>	E Screens							
→ Let Hut tag:       → Le	Screen management						Use wildcards	
Connections     Hild alams:     Hild horid:      Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:     Hild horid:	🕨 🔚 HMI tags						Use regular expressions	
With a larms   Becipes   Walarms   Services   Scheduled tasks   Cycles   Sycheduled tasks   Cycles   Cycles   Cycles   Cycles   Cycles   Cycles   Selectall   Wanings (Analog_slam)   Reference projects   Wupace 15007 Stater Maintenenc.   General   Wupace 15007 Stater Maintenenc.   General   Wine task   Miscellaneous    Clear formatting Bold Settings Achange to capital letters Achange to capital	2 Connections						O Davia	
Cut     Becipes     Becipes     Becipes     Stripts     Strip	🖂 HMI alarms						Down	
Image: Second State Second State Second S	📑 Recipes				V cut		Up	
Sories	III Historical data				THE CODY		Find	
Scheduldu alss       Colete         Cycles       Cycles         Ib Text and graphic fists       Iment tag field.         Ib Text and graphic field.       Iment tag field.         Ib Text and graphic field.       <	Scripts				Te Paste			
Cycles C	5 Scheduled tasks				M Delete		Replace with:	
Image: Section of the section of t	🕐 Cycles				× Delete			ŀ
I ber and graphic lists   I ber and g	Reports				E Select all		Whole document	
Were administration     Image: Constraint of the state of	Text and graphic lists				- Insert tag field		Erem surrent excition	
Variance 1/0120 0U240E2 PM     Warnings (Analog_alarm)     Clear formatting     U Diagnostics     Reference projects       Reference projects     Properties     Events     Events     Frashing     Image: Clear formatting     Events     Reference projects     Reference	💡 User administration	<		п	🔄 Insert text list field	>	From current position	
Beference projects     Properties     Events     Beold     Replace all       Maupace 1500TStarter Maintenanc.     General     I talic     I fashing       Maupace 1500TStarter Maintenanc.     General     I talic     I talic       Image: Marcel aneous     I talic     I talic     I talic       Image: Marcel aneous     I talic     I talic     I talic       Image: Marcel aneous     I talic     I talic     I talic	Drive 1 [G120 CU240E-2 PN]	Warnings [Analog			Clear formatting	🖁 Diagnostics 📰 🖃 🗸	<ul> <li>Selection</li> </ul>	
Control of the second state o		Properties	Events Texts	7	B Bold		Replace Replace all	
Waupaca 1500T Starter Maintenanc     General     I Italic     Image: Compared to capital letters       Image: Info text     Info text     Alarm text: Drive 1:       Details view     Miscellaneous     ID:	Reference projects	roperties	Events Texts		F: Flashing			
Wuppace 1500T Starter Meintenenc     General     Underline       Tigger     Agroup Construction (Construction)     Agroup Construction (Construction)       Image: Setting Construction (Construction)     Setting Construction (Construction)       Image: Construction (Construction)     Information (Construction)       Image: Construction (Construction)     Setting (Construction) <td><u> </u></td> <td></td> <td>General</td> <td></td> <td>I Italic</td> <td>^</td> <td></td> <td></td>	<u> </u>		General		I Italic	^		
Trigger     Settings     Aa Change to capital letters       Info text     Alarm text:     Drive 1:       Details view     Miscellaneous     ID:	Waupaca 1500T Starter Maintenanc	General			Underline			
III I Info text Alarm text: Drive 1: Details view ID: 1		Trigger	Settin	igs	Aa Change to capital letters	-		
Details view Mscellaneous ID: 1		Info text		Alarm text: Drive 1:				
Details view	III	Miscellaneous		ID: 1	۵			
How down Wheelers 1	Details view		-	New dealers			1	
varm class: Varmings (3)				Alarm class: Warnings	3			
Alarm group: -No alarm group> 3				Alarm group: <a>No alarm group</a>	p> 🙂	~	> Languages & resources	
Portal view TR Overview HMI alarms	Portal view	HMI alarms					Project C120 Alarms to HMI opened	

13. Click on the Text List icon and choose the Faults and Alarms text list.

当 Siemens - C:UsersidmcculleyDocuments\Automation\G120 Alarms to HMI\G120 Alarms to HMI and Alarms - a X											
Project Edit View Insert Online Options Tools Window Help Totally Integrated Automation											
📑 🞦 🔚 Save project 🔳 🐰 🗉 🗎 🗙	() ± (여 ± 등 표 표 표 표 표	🖡 💋 Go online 🖉 Go offline    🖪 🔒	🛠 📃 🛄 🛛 Search in project> 🛛 🏭		PORTAL						
Project tree	G120 Alarms to HMI > HMI	1 [TP900 Comfort] + HMI alarms		_ # = ×	Tasks 🔳 🗈 🕨						
Devices	Devices 🙀 Discrete alarms 🙀 Analog alarms 🙀 Controller alarms 🖳 System events 🙀 Alarm classes 🕲 Alarm groups										
🖬 🔟 🖻	<b>₽ ₽</b>			<b>_</b>	Tas						
	Analog alarms				Y Find and replace						
📮 💌 🛅 G120 Alarms to HMI	ID Name	Alarm text	Alarm class Trigger tag Limit	Limit mode Report							
💈 🌁 Add new device	🔀 1 🖨 Warnings	Drive 1: <text #unresolved#="" list,=""></text>	Warnings Warning N 0 Cond-	Higher 💌 📃	Find:						
Devices & networks	🔀 2 Faults	Drive 1: <text alarm<="" and="" faults="" list,="" td=""><td>Errors Fault Number 0</td><td>Higher 📃</td><td>.ibr</td></text>	Errors Fault Number 0	Higher 📃	.ibr						
🗧 🕨 🫅 PLC_1 [CPU 1511TF-1 PN]	<add new=""></add>				Whole words only						
<ul> <li>HMI_1 [TP900 Comfort]</li> </ul>											
Device configuration					Match case						
S Online & diagnostics					Find in substructures						
Y Runtime settings					Find in hidden texts						
Creens					Use wildcards						
Green management											
HMI tags					ose regular expressions						
Connections					Down						
HM alarms					O Up						
Recipes											
Historical data					Find						
Cabeduled tasks					Replace with:						
Corles											
Paportr											
Text and graphic lists		P	rocess		Whole document						
liser administration			Text list:		From current position						
Drive 1 [G120 CU240E-2 PN]			Traci								
< III >	Warnings [Analog_alarm]		Tag: TIMI_1 [TP900 Comfort]		Replace all						
✓ Reference projects	Properties Events	Texts	PLC tag: Text and graphic lists	Name	Replace on						
			Address:	None							
Vaupaca 1500T Starter Maintenanc		General		1- Faults and Alarms							
	General	Settings		_ 4.1							
	Trigger ,										
< III >	Info text	Alarm text: Drive 1: clext li	st, #unreso	📑 Add new							
✓ Details view	Miscellaneous	ID: 1									
		Alarm class: Warnings	3								
		Alarm group: No alarm grou	p> ≝								
Portal view     Overview	HMI alarms			v	Project G120 Alarms to HMI opened						
					Define for the second s						
> Type nere to search		T Reminder(s)	Drive faults t VIS1 C:\Users\dm	3 SIMOTION S W G12	0 Drive P						



- • ×

	14.	Click on	the tag	choice	and	choose t	the ۱	Warning	Number	tag.
--	-----	----------	---------	--------	-----	----------	-------	---------	--------	------

	G120 Alarms to HMI → HMI_1 [TP900 Comfort] → HMI alarms _ ■ ■ = X						Tasks 🗗 🛙		
Devices	Discrete	alarms 🔄	Analog alarms	Controller alarn	ns 🛛 🖳 Sys'	tem events 🛛 🖓 Alarm classes	Alarm groups	Options	
	⇒ ₩								E
<u> </u>	Analog alar	me						La Find and sectors	
G120 Alarms to HMI		Name	Alarm	text	Alarm clar	S Trigger tag Limit L/	imit mode Report	Find and replace	
Add new device	S 1	Warnings	Drive '	1: <text #unresolved="" <="" list,="" td=""><td>#&gt; Warnings</td><td>Warning N., W 0 ford+ P</td><td>tigher 💌 🗌</td><td>Find:</td><td></td></text>	#> Warnings	Warning N., W 0 ford+ P	tigher 💌 🗌	Find:	
A Devices & networks	2	Faults	Drive 1	1: <text al<="" and="" faults="" list,="" td=""><td>arms Errors</td><td>Fault Number C 0</td><td>figher 🗌</td><td></td><td></td></text>	arms Errors	Fault Number C 0	figher 🗌		
PLC_1 [CPU 1511TF-1 PN]	<add new<="" td=""><td>Þ</td><td></td><td></td><td></td><td>7</td><td></td><td></td><td></td></add>	Þ				7			
<ul> <li>HMI_1 [TP900 Comfort]</li> </ul>								Whole words only	
Device configuration					г	(		1	
Q Online & diagnostics					/	▼ 1 PLC_1 [CPU 1511TF-1 PN]	statusworr	d.x1	
Y Runtime settings					/ P	Software units	News		
Screens					/	🕨 🛃 Program blocks	Name		
Screen management					/	Technology objects	a apiec		
🕶 🔁 HMI tags					/ P	PLC tags		ins Instructional Instruction	
a Show all tags					/ · · · ·	Local modules		amber Drive 1	
Add new tag table					/ P	- 🔁 HMI_1 [TP900 Comfort]	- warning	J Number Drive 1	
💥 Default tag table [3]					/	🗕 🔁 HMI tags	•		
Connections					/ · · · · ·	🕶 🎬 Default tag table [3]			
🖂 HMI alarms					- P				
🛃 Recipes					/ · · · ·	1			
🛄 Historical data				_		1			
Scripts				Y			<		
5 Scheduled tasks					Process	Show all	🔍 Edit 📑 /	dd new 🗸 🗙	
Cycles	<				Text list:				
Reports	Warnings (Ana	log alarm]			Tag:	E Diag	montice	Selection	
Text and graphic lists	in an ingo pana	The second second			PI C tage	, Diagi	losues	Replace Replace all	
Reference projects	Properties	Events	Texts	//	FLC tog:				
<b>5</b>			Canaral		Address:		^	4	
Waupaca 1500T Starter Maintenanc									
	General		Settings						
	irigger	1		Alarm text: Drive 1: ZT	ext list #upresc	fuedEx	7		
	Mill text	1				10002			
Details view	Wiscenarieous	É.		10: 1			1		
	1		A	larm class: Warnings					
	1		Al	arm group: No alarm g	roup> 🔳		N	> Languages & resources	
	4	U/						· Lunguuges a	

15. In the Analog Alarms tab choose the Trigger Tag as Warning Number. Rename the Analog_alarm_1 to Warnings. Set the Limit to Constant and enter a value of 0.

Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Devices Dev		G120 Alarms to HM	HML 1 [TP900 Comfo	rt] ). HM alarms				Tasks	FORTA
Devices dataling and and galaring and galari	Decidee un	GT20 Alarms to Hive			Cuntam avant				
Marine to MA       Marine to MAR       Marine to MAR <td>Devices</td> <td>CR Discrete alarn</td> <td>ns Analog alarms</td> <td>Controller alarms</td> <td>System event</td> <td>Alarm classes</td> <td>Marm groups</td> <td>Options</td> <td></td>	Devices	CR Discrete alarn	ns Analog alarms	Controller alarms	System event	Alarm classes	Marm groups	Options	
Old 20 Alarms to HM Image alarms   Image alarms <t< td=""><td>i 📃 🖻</td><td></td><td></td><td></td><td></td><td></td><td><b></b></td><td></td><td></td></t<>	i 📃 🖻						<b></b>		
G 120 Alarms to HM       ID       Name       Name       Alarm text       Alarm text       Alarms text       Toger ray       Linit       Linit       Linit       Linit       Mode Report       Find:         B Add rev devices       B Add rev devices       Faction       Faction       Find:       Fi		Analog alarms						✓ Find and replace	
Image: Standard new device   Device: Standard new device   Image: Standa	G120 Alarms to HMI	ID	Name Alarm te	ext	Alarm class Trigge	er tag Limit	Limit mode Report		
■ Device: 8 metworks <ul> <li>■ PC_1 [CPU15117F-1 PN]</li> <li>■ PC_1 [PCU1517F-1 PN]</li> <li>■ PCU1517F-1 PN]</li> <li>■ PCU1517F-1 PN]</li> <li>■ PCU1517F-1 PN]</li> <li>■</li></ul>	Add new device	2 1	Warnings Drive 1:	<text alarms<="" and="" faults="" list,="" td=""><td>Warnings</td><td>01) 🗄 0 [md-</td><td>Higher 💌 📃</td><td>Find:</td><td></td></text>	Warnings	01) 🗄 0 [md-	Higher 💌 📃	Find:	
	Devices & networks	2	Faults Drive 1:	<text alarms<="" and="" faults="" list,="" td=""><td>Errors</td><td></td><td></td><td></td><td>-</td></text>	Errors				-
Verti View	[] PLC_1 [CPU 1511TF-1 PN]	<add new=""></add>			•	PLC_1 [CPU 15111F-1 PN]	statu	sword.x1	
Device configuration   Wonne de diagnostic   None   None   None   None   None   Screen management   Scree	<ul> <li>HMI_1 [TP900 Comfort]</li> </ul>					Bassare black	Name		
Online & diagnostics   Public & diagnostics   Public & strains   Streens	Y Device configuration					Technologyahiasts	N	one	
	Online & diagnostics					P La rechnology objects		DiagnosticsIndicatorTag	
Sortens     S	T Runtime settings					<ul> <li>The tags</li> <li>The tags</li> </ul>		ult Number Drive 1	
Societ management	Screens				-	HML 1 (TP000 Comfort)	. <b>_</b> w	arning Number Drive 1	
Add new tag table     Add new tag table     Default     Defau	Screen management					HMI taor			
Show all as is	<ul> <li>HMI tags</li> </ul>					<ul> <li>Contractions</li> <li>Contractions</li> <li>Contractions</li> </ul>	21		
Add new Vig table Connections Connections M Ma alams Recipes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes Soripes	a Show all tags					• Ja Delaurit tag table (.	21		
• Origet Stater Maintenanc.           Origet Stater Maintenanc.             • Maxwasca 1500T Stater Maintenanc.           • Maxwasca 1500T Stater Maintenanc.             • Maxwasca 1500T Stater Maintenanc.           • Maxwasca 1500T Stater Maintenanc. <td>Add new tag table</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Add new tag table								
Wainings       Alarm text:       Dre teiling         Wainings       Hainings       Hill alarms	Default tag table [3]								
Potal view     Image: Settings       Image: Settings     Image: Settings <tr< td=""><td>Connections</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>	Connections								
	HMI alarms								
Imitorial data       Imitorial data         Imitorial data       Imitorial	Recipes					Showall	🔍 Edit	🚰 Add new 🛛 🖌 🗙	
S Schelediad tasks       C <	Historical data							4	
Softeolue dass Cycles Softeolue dass Cycles Softeolue dass Cycles Softeolue dass Cycles Softeolue dass Softeolue das	School and a sector							<ul> <li>Whole document</li> </ul>	
Warnings (Analog_alarm)       Warnings (Analog_alarm)       Selection         Warnings (Analog_alarm)       Properties       Info       Diagnostics         Warnings (Analog_alarm)       General       Selection         Warnings (Analog_alarm)       General       Selection         Warnings (Analog_alarm)       Settings       Settings         Warnings (Analog_alarm)       Settings       Settings         Marm class:       Warnings (Marmings (Marmaling (Marmaling))       Settings         Micelaneous       ID: 1       Settings         Alarm class:       Warnings (Marmaling)       Settings         Alarm class:       Warnings (Marmaling)       Verview	Scheduled tasks							From current position	
Warnings [Analog_alarm]       @ Properties       % Info       © Diagnostics       Replace all         Reference projects       Properties       Feedback       Replace all       Replace all         Waupace 15007 Starter Maintenance       General       Settings       Fill Bit Maintenance       Feedback         III       Details view       Dit I       Alarm class:       Varings II:       Varings II:         Potal View       © Overview       IM Malarms       Alarm group:       Ido alarm group:       Varings II:         Potal View       © Overview       IM Malarms       Marm group:       Ido alarm group:       Ido alarm group:       Varings II:	Cycles							O Selection	
Reference projects     Properties     Events     Texts       Image: Info text     General     General     General       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text       Image: Info text     Info text     Info text     Info text	Taxt and graphic lists	Warnings [Analog_a			🧟 Propertie	s 🗓 Info 🗓 Dia	gnostics 💦 📑 📼		
Image: Concernal Trigger       General Settings         Image: IsoorStarter Maintenance Image: IsoorStarter Image: Image: IsoorStarter Image:	Reference projects	Properties Ev	vents Texts					Replace Replace all	
Waupace 1500TStarter Maintenanc       General       General         Tingger       Alarm text:       Drive 1: <a href="https://www.memory.intenance">https://www.memory.intenance</a> Details view       Mot text       None 1: <a href="https://www.memory.intenance">https://www.memory.intenance</a> Potal view       HMI alarms       Alarm group:       I       I         Alarm group:       I dot alarm group:       I       I       I         Potal view       HMI alarms       I       I       I       I			Π						
Wupsca 1500TStarter Maintenance     General       Trigger     Info text       Info text     Aarm text: Drive 1: citex faults and Alarms>       Details view     Miscellaneous       Verview     HMI alarms			General						
Trigger     Trigger     Setulitys       III     Info text     Alarm text:       Details view     Info text     Info text       Verview     Alarm class:     Warnings       Potal view     HMI alarms	Waupaca 1500T Starter Maintenanc	General	Cattings						
Image: Section of text     Alarm text     Drive 1: Sfeet (ist, Faults and Alarmas)       Details view     Mscellaneous     ID       Alarm group:     Alarm group:     Idio alarm group:       Potal View     II Mil alarmas		Trigger	settings				=		
Details view     Mscellaneous     ID: 1     ID: 1       Alarm class:     Wamings     ID: 1		Info text	- A	larm text: Drive 1: <text lis<="" td=""><td>t, Faults and Alarms&gt;</td><td></td><td></td><td></td><td></td></text>	t, Faults and Alarms>				
Alarm class: Warnings II Alarm group: do alarm group: 1 Varnings II Alarm group: do alarm group: 1 Varnings Va Varnings Varnings V		Miscellaneous	•	ID: 1	•				
Portal View E Overview II Mil alarms	Detalla dans	4	Ali	m class: Warnings					
Portal view 🗄 Overview 🖾 HMI elerms	Details view								
Portal view 🗄 Overview 🖂 HMI alarms	Details view								
	Details view		Ala	rm group: <a>No alarm group</a>	> 1		~	> Languages & resources	_

White Paper: How to Display G120 Drive Faults Directly on HMI with No PLC Programming



ı x

16. Repeat the same steps but make sure to add Fault information as below using the Fault Number tag instead of the Warning Number tag:

G1	G120 Alarms to HMI → HMI_1 [TP900 Comfort] → HMI alarms												
[		Discrete ala	rms 🔄 Analog a	larms	Controller alarms	System (	events 🛛 🔛 /	Alarm classes	Alarm o	roups			
		-											
	Analog alarms												
		ID	Name	Alarm t	ext	Alarm class	Trigger tag	Limit	Limit mode	Report			
	3	1	Warnings	Drive 1	<text alarm<="" and="" faults="" list,="" th=""><th>Warnings 🔜</th><th>Warning N</th><th>0 Const -</th><th>Higher 💌</th><th></th></text>	Warnings 🔜	Warning N	0 Const -	Higher 💌				
	2	2	Faults	Drive 1	<text alarm:<="" and="" faults="" list,="" p=""></text>	Errors	Fault Number	0	Higher				
		<add new=""></add>											
	<			-						>			

17. Save and compile your HMI. You can use HMI Simulation to test the application if you have your drive connected to your computer.

ect Edit View Insert Online Optio	ns Tools Windov S 🛨 (P ± 🚮 🛽	V Helo D 🖸 🖳 📮 💋 Go d	online 🖉 Go offline  🎂 🕕	× = 11 m m <	earch in project>		Totally Integrated Automat PC	tion DRTAL
Project tree 🛛 🛙 🖣	G120 Alarms to	HMI • mml_1 [TP90	0 Comfort] 🕨 HMI alarms			_ # = ×	Tasks	
Devices	🔀 Discrete a	larms 🛛 🔀 Analog a	alarms 🔄 Controller alarms	System events	Alarm classes	🕲 Alarm groups	Options	
11 II I	⇒ ₩							
	Analog alarn	15					× Find and replace	
G120 Alarms to HMI	ID	Name	Alarm text	Alarm class Trigger ta	g Limit Lin	nit mode Report	- The did replace	_
Add new device	S 1	Warnings	Drive 1: <text alam<="" and="" faults="" list,="" td=""><td>ms Warnings Warning</td><td>Num 0 His</td><td>gher 📃</td><td>Find:</td><td></td></text>	ms Warnings Warning	Num 0 His	gher 📃	Find:	
📥 Devices & networks	2	Faults	Drive 1: <text alam<="" and="" faults="" list,="" td=""><td>ns Errors Fault Nur</td><td>n 0 Const - His</td><td>gher 💌 📃</td><td></td><td>-</td></text>	ns Errors Fault Nur	n 0 Const - His	gher 💌 📃		-
DLC_1 [CPU 1511TF-1 PN]	<add new=""></add>							
HMI_1 [TP900 Comfort]							whole words only	
Device configuration							Match case	
Q Online & diagnostics							Find in substructures	
Y Runtime settings							Find in hidden texts	
Screens							Burnelling	
Screen management								
🔻 🔁 HMI tags							Use regular expressions	
a Show all tags							Down	
📑 Add new tag table							Down	
🍯 Default tag table [3]							Up	
🔁 Connections							Find	
🖂 HMI alarms								
🔂 Recipes							Replace with:	
🔛 Historical data								-
Em Scripts							Whole document	
5 Scheduled tasks								
Cycles	<			11		>	Prom current position	
Reports	Faults [Analog ]	alarm]		Q Properties	Diagn	ostics	<ul> <li>Selection</li> </ul>	
Text and graphic lists			7	3	I amo I a sugu		Replace Replace all	
Reference projects	Properties	Events Texts						
2 12		General				^		
Waupaca 1500T Starter Maintenanc	Conoral	General						
	Trieses	Settir	igs					
	Ingger	1	Alarm text: Drive 1: <text< td=""><td>list, Faults and Alarms&gt;</td><td></td><td>-</td><td></td><td></td></text<>	list, Faults and Alarms>		-		
	Miscellaneour		10: 2					
Details view	Miscellaneous	-	ID: 2					
	1		Alarm class: Errors	3				
			Alarm group: <a>No alarm gro</a>	up> 🔳		~	> Languages & resources	_
4 Destatution	NMI alarma							
Portal view	Mini alarms						🚟 💙 Project G120 Alarms to HMI opened.	

White Paper: How to Display G120 Drive Faults Directly on HMI with No PLC Programming



Siemens - C:\Users\dmcculley\Docur	ments\Automation\G120 Alarms	to HMI\G120 Alarms to H	IMI						-	. a x
Project Edit View Insert Online	Options Tools Window Help						1	otally Integrated	Automation	
📑 🎦 🔚 Save project 🔳 🐰 🗐 🗎	X 🖒 ± (°' ± 🗟 🗉 🖬 🖩	🛛 🙀 🧭 Go online 🖉 Go	o offline  🛔 🖪 🖉 🗧	Search in project	> 🖬				PORTA	AL
Project tree	◀ G120 Alarms to HMI → H									× 4
Devices							1-	Text lists 👔	Graphic lists	
Tesh Tesh	* = =									1.
	Taxt lists									
5 G120 Alarms to HM	A Name		SelectionComm	ent						×
Add new device	SIMATIC WinCC Buntime Adva	red	$\land$			×				
Devices & networks	SimArice Whice Runnie Adva	ceu	1							3
🦉 🔸 🧊 PLC_1 [CPU 1511TF-1 PN]										do
HMI_1 [TP900 Comfort]	SIEME	S		SIMA	ATIC HMI					3
Device configuration										
😵 Online & diagnostics										4
Y Runtime settings		i .								
▼ Creens	Unacknowl	dged alarms		X	4/2/2020					
Add new screen	No.	ime Date Stat	Text	Acknowledge	3:34:02 AM					9
Root screen	28	33:57 4/2/2020 1	30003Power unit: DC link	0	$\geq$					
Screen management			voltage undervoltage							^
HMI tags										
and new test table										$\sim$
Default tag table						[20] p		• [1] et		Ξ.
Connections						Prop	erties Info	Diagnostice	5 -	
HM alarms										
- Recipes										
III Historical data										1
Scripts										
5 Scheduled tasks						B AM				
Cycles						BAM				- 11
✓ Reference projects	=2			155.		B AM				- H
🔁 🕒						B AM				
Waupaca 1500T Starter Maintenan				<u>A</u> +	₩ <b>₽</b>	4 AM				- 11
					$\bigcirc$					
<										- 1
✓ Details view										- 11
						-				- 11
	[+]					• •				- 11
Portal view     Overview	v 🖂 HMI alarms 😤 🤇	onnections 🛛 🕌 Default t	tag t 🔛 Text and gra				🔝 😪 The project (	5120 Alarms to HMI w	ias sa	
P Type here to search	0	Circuit - Guest - Go	Inbox - Darren McC	TIA Siemens - (	:\Users w Drive Fault	s To HMI	SIMATIC WinCC Ru	_ <b>™ d</b> i	8:34 AM	E
,	Ŭ			V 15.1		KA			4/2/2020	

18. I created a DC link undervoltage fault on my drive and you can see the alarm display on my simulated HMI.

19. You can setup the fault and alarm messages for multiple drives by adding another HMI connection with the correct drive address, setup appropriate tags and add more alarms and faults to the analog faults screen for the drives. Make sure to name the drive faults and alarms appropriately as in step 11.