Technical Information

YS1000



Replacement Guide $YS170 \rightarrow YS1700$ User Program Conversion

TI 01B08A02-07EN



The contents of this Technical Information are subject to change without notice.



Contents

Introduction	3
1. YS100→YS1000 Instrument Correspondence Table	4
2. Old model conversion flow chart	5
3. Overview of YS100 conversion	6
4. YS100 conversion procedure	6
5. Precautions	16
6. Reference documentation	17
Revision Information	i

Introduction

This manual describes how to read user programs and parameters from the YS100 and convert then to YS1000 data.

Outside YS170 programmable mode, conversion to YS1000 is possible through conversion of the read parameters.

In YS170 programmable mode, conversion to YS1700 is possible by converting user programs and parameters.

In any case, be sure to check data and operations after conversion.

•Documentation for replacement

Name	No.	Description
YS1000 Series Replacement Guide Overview, Model Conversion	TI 01B08A02-05EN	Please read me first. This manual describes the overview, model conversion.
YS1000 Series Replacement Guide Installation and Wiring	TI 01B08A02-06EN	This manual describes the compatibility of installation and wiring with YS100, YS80, EBS, I, EK, HOMAC, and 100 line.
YS1000 Replacement Guide YS170 \rightarrow YS1700 User Program Conversion	TI 01B08A02-07EN	This manual describes how to read user programs and parameters from the YS100 and convert then to YS1000 data.
YS1000 Replacement Guide SLPC \rightarrow YS1700 User Program Conversion	TI 01B08A02-08EN	This manual describes how to read user programs and parameters from the SLPC and convert then to YS1000 data.

Notice

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→1. YS100→YS1000 Instrument Correspondence Table

MODEL	Name	YS1000
YS170	Programmable Indicating Controller	YS1700
YS150	Indicating Controller	YS1500
YS135	Manual Setter for SV Setting	YS1350
YS136	Manual Setter for MV Setting	YS1360
YS131	Indicator with Alarm	YS1310





3. Overview of YS100 conversion

→ Parameters and user programs: Read from the YS100 and convert



*** 4. YS100 conversion procedure

- → 4.1 Starting the YSS1000
- → 4.2 YS100 connection and starting the YS100 upload
- ---- 4.3 Executing the YS100 upload and checking the converted results
- → 4.5 Saving files
- ☆ 4.7 Checking programs
- → 4.8 Checking and entering parameters
- → 4.9 Download on the YS1000
- → 4.10 Checking operation (debugging programs)





- → Start the YSS1000
- ---- Click the YS1000 Configuration Function



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** 4.3 Executing the YS100 upload and checking the converted results

- → (1) Click STOP and Upload All YS100
- → (2) Check converted results
 - \rightarrow (a) Correct any errors that are found. Ignore the others and click OK.
 - \Rightarrow (b) Parameters expanded from the YS100 become the defaults.

Decute Communication Program Communication Program Communication Program Communication Options Serial Port CO0M3 v	Communication Status Model Option Controller Mode	Online YS170 S4 /A31 PROG	sconnection				
		🤐 Convers	ion Result List				
		No	Parameter name before	Data value	Parameter name	Data value after	Conversion result
		1					
		2	DI02	DI	DI025	DI	Name is changed.
	ALM Generation Status	3	DIO3	DI	DI034	DI	Name is changed.
	R	AM 4	DI04	DI	DI043	DI	Name is changed.
		5	DI05	DI	DI052	DI	Name is changed.
		6	DIO6	DI	DIO61	DI	Name is changed.
	Controller Status	7	DL1	212.6	DL1	0.0	Value is changed.
	RUN	8	DL2	106.3	DL2	0.0	Value is changed.
		9	FX0101	0.0	FX0101	0.000	Value is changed.
	EUN SIOP	10	FX0102	10.0	FXD102	0.100	Value is changed.
		11	FXD 103	20.0	FXD103	0.200	Value is changed.
		12	FXD 104	30.0	FX0104	0.300	Value is changed.
	Linkard A	a ya 13	FX0105	40.0	FXO105	0.400	Value is changed.
	oposo A	14	FXO 106	50.0	FX0106	0.500	Value is changed.
		15	FX0107	60.0	FX0107	0.600	Value is changed.
		16	FXO 108	70.0	FXO108	0.700	Value is changed.
Communicating		17	FX0109	80.0	FX0109	0.800	Value is changed.
		18	FX0110	90.0	FXD110	0.900	Value is changed.
		19	FX0111	100.0	FX0111	1.000	Value is changed.
		20	FX0201	0.0	FX0201	0.000	Value is changed.
		21	FX0202	10.0	FX0202	0.100	Value is changed.
		22	FX0203	20.0	EXD203	0 200	Value is channed
						ок	Print

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- → Since it will become the YS1700-100 after conversion, you must enter system data referencing the name plate.
 - (1) Communication 1: /A31/A32 can be detected. Change /A33 to no options.
 - \Rightarrow (2) Enter system data referencing the downloaded YS1700 name plate

	🧟 System Data	
	System Data	
	Upload System Data	
TEDOGRAMMABLE INDICATING CONTROLLER OCTAVISE THAT BUT UT AVIS STATUS UT AVIS STATUS UT AVIS STATUS AVIS THAT BUT TO THAT AVIS THAT BUT TO THAT THAT AVIS AVIS THAT BUT TO THAT THAT AVIS AVIS THAT BUT TO THAT THAT AVIS	Model Use Type Power Supply Direct Input Communication1 YS1700 ▼ 1 0 0.100/AC.24VDC ↓ /A31 ♥ /A31 ♥	Communication2 Certification
	Controller Mode PROG	
	Programming Method Text Method •	
	User Program Name FIC1001	
		OK Cancel
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→ When converting system data, follow the prompts to save files.



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**** 4.6 Comparing programs

→ Compare with the YS100 program list

→ (1) Program comments are not retained.





 \Rightarrow Select Tools > Program check to run a program check. \rightarrow (1) If an error occurs, check the program.



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•••• 4.7.1 Selecting control functions

- → Care is required when using independent 2-loop control.
 - → Ex.: If BSC1 is listed after BSC2, select the control function based on the last BSC1.
 - (becomes single loop control)
 - → In that case, please correct the control function selection.

	YSS1000 YS1000 Settings [FIC1002.xip]
Text Program	The control function selection and control command of the program data do not match. If this problem is not resolved, downloading will not be possible.
@002 B <u>SC2</u> @003 ST Y3	ок
@004 LD X1 @005 BSC1 @006 ST Y1 @007 END	Image: Strate Difference File View(V) Tool(I) Communication(S) Window(W) Image: Strate Difference Image: Strate Difference Image: Strate Difference Single-loop Control Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Difference Image: Strate Differe
K Page 1	Image: Parameter Comment K Parameter Comment R Parameter Comment R Parameter Settings @004 LD X1 Image: Parameter Settings Image: Parameter Settings @005 BSC1 Image: Parameter Settings Image: Parameter Settings Image: Parameter Settings @007 END @007 END Port Dealy control using a single YS1700. Use BSC1 and BSC2 control modules. Use BSC1 for the first loop and BSC2 for the second loop of dual-loop control.
Row:2, Column:10	NumLock Car Page 1 Row2, Column10 NumLock C OK Cancel
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(1) Be sure to reflect the SV value (since upload data is the initialization start value)

Setpoint value 1 Proportional band 1 Integral time 1 Derivative time 1 Adjustable setpoint filter alpha 1 Adjustable setpoint filter beta 1 Non-linear control gap width 1 Non-linear control gain 1	100.0 100.0 20 0 0.000 0.000 0.000	% S S
Proportional band 1 Integral time 1 Derivative time 1 Adjustable setpoint filter alpha 1 Adjustable setpoint filter beta 1 Non-linear control gap width 1 Non-linear control gain 1	100.0 20 0.000 0.000 0.000 0.000	% S S
Integral time 1 Derivative time 1 Adjustable setpoint filter alpha1 Adjustable setpoint filter beta1 Non-linear control gap width 1 Non-linear control gain 1	20 0 0.000 0.000 0.000	S S
Derivative time 1 Adjustable setpoint filter alpha1 Adjustable setpoint filter beta1 Non-linear control gap width 1 Non-linear control gain 1	0 0.000 0.000 0.0	S
Adjustable setpoint filter alpha1 Adjustable setpoint filter beta1 Non-linear control gap width 1 Non-linear control gain 1	0.000 0.000 0.0	
Adjustable setpoint filter beta 1 Non-linear control gap width 1 Non-linear control gain 1	0.000	
Non-linear control gap width 1 Non-linear control gain 1	0.0	
Non-linear control gain 1		%
	1.000	
High limit alarm setpoint for P	190.1	
Low limit alarm setpoint for PV1	20.0	
High-high limit alarm setpoint	212.6	
Low-low limit alarm setpoint f	-12.6	
Alarm setpoint for deviation v	0.0	
Velocity alarm setpoint for PV1	0.0	
Velocity alarm time setpoint f	1	S
Alarm hysteresis 1	4.0	
High limit setpoint of MV1	100.0	%
Low limit setpoint of MV1	0.0	%
Manual reset 1	-6.3	%
Reset bias 1	0.0	%
	High limit setpoint of MV1 Low limit setpoint of MV1 Manual reset 1 Reset hias 1 P Para	High limit setpoint of MV1 100.0 Low limit setpoint of MV1 0.0 Manual reset 1 -6.3 Reset bias 1 0.0

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→ Set appropriate default parameters.

- → (1) For the YS170, the Y3 current/voltage selection is specified by jumpers. Set the Y3 current/voltage under Y3TP.
- $\dot{~~}$ (2) Also enter settings as appropriate for the expanded screens MTR1, MTR2, and TRND3.

	Name	Setting Value		Uni
START	Start mode	AUT	-	
CYCL	Control period	200ms	-	
ATSEL	Autoselector selection	LOW	-	
FDSP	Power-on initial display	LOOP1	-	
LOOP1	LOOP 1 Display ON/OFF	ON	-	
LOOP2	LOOP 2 Display ON/OFF	OFF	-	
MTR1	METER 1 Display ON/OFF	ON	-	
MTR2	METER 2 Display ON/OFF	ON	-	
TRND1	TREND 1 Display ON/OFF	ON	-	
TRND2	TREND 2 Display ON/OFF	OFF	-	
TRND3	TREND 3 Display ON/OFF	ON	-	
ALARM	ALARM Display ON/OFF	ON	-	
DUAL1	DUAL 1 Display ON/OFF	OFF	-	
DUAL2	DUAL 2 Display ON/OFF	OFF	-	
CAMLK	Keylock for C/A/M mode ch	UNLOCK	-	
SVLK	Keylock for SV change	UNLOCK	-	
MVLK	Keylock for MV change	UNLOCK	-	
SCOCD	Selection of Current Output	ALARM	-	
Y3TP	Analog output 3 current/volt	1-5V	-	





→ Connect the YS1000.







- → (1) Menu > Communication > Download All Data
- → (2) Click STOP and Execute Download All Data







→ Be sure to review the data that was downloaded from the YS100 to the YS1000 and converted, and check operation.

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- \Rightarrow (1) RUN mode: Run user programs.
- \Rightarrow (2) TEST1 mode: Run user programs and simulation programs.
- → (3) TEST2 mode: Run user programs and simulation programs.
 You can also set the input signal (you can debug without wiring).



- → (1) Menu > Communication > Tuning
- (2) Click TEST2, execute tuning



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*** 4.10.3 Description of the tuning window

File(F) Edit(E) View(V) Tool(T) Cor	mmunication(<u>C</u>) Mon	itor(<u>M</u>) Window(<u>V</u>	V) Convert(Q) Initialized	e(]) Help(<u>H</u>)	_ 8 :
FIC1001 xip System Data Parameter Parameter File Informatic Input/Output Parameter(K Parame	Trend No.1 LP1.PV V -12.6 Trend No.9 LP1.PV	Irend No.2 Irend No.10 I 20.0 ✓ I 20.0 ✓	Id No.3 Trend LPI MV LF -6.3 International LPI PV LF	No.4 Trend No.5 ?2.PV LP2.SV No.12 Trend No.13 P1.PV LP1.PV	Trend No. 5 LP2 MV Trend No. 14 Trend No. 14 LP1 PV LP1 PV LP1 PV	Trend No.8 LP1:PV Trend No.16 LP1:PV
Parameter Setting 						- 1800 - 0 - 1600 - 0 - 1400 - 0 - 1200 - 0
			Trend	monitor		- 1000 - 0 - 800 - 0 - 600 - 0
Register Process data area Tuning parameters Engineering Parameters 1 Fromering Parameters 2	19:22:31 1	9:23:31 19:2	4:31 19	25:31 19:26:31	19:27:31 19:28:3	
User's program Only for YSS1000 Only for Peerto-Peer com Operation dispaly	SVI 1200		1 100.0 TH	20 TD1	0 VS1700-120 ALM ■ TEST2 ↓ LOOP1 ↓ - ↓ C A M	200.0
		Regist	er mor	nitor	TAGI FIC-1001 PV -12.6 m3/ SV 120.0 m3/ MV -6.3 controller mode: Protoil PP0 -12.6	— 100.0 h k x
	(Scaled Value)	Delete all registered registers	s (reset register registrati	on to the initial state)	MAX 33*	
	· Communication		Data read over	le:1sec 2014/05/15	19-23	

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- \Rightarrow (1) Set control registers AI and DI as needed.
- \Rightarrow (2) Confirm proper operation.



Switch from TEST2 mode to RUN mode.







→ 5 Precautions

- Be sure to review the data that was downloaded from the YS100 to the YS1000 and converted, and check operation.
- If the program to be converted has multiple differing control commands (BSC1, BSC2, CSC, SSC), the control function of the last step of the program is selected for the control function selection.





*** 6 Reference documentation

Software (user programs)

- YSS1000 Setting Software/YS1700 Programmable Function user's manual
 - » (IM 01B08K01-02EN)
 - 2.13.2 This manual describes how to load user programs and parameters
 - » Connect the YSS1000 PC to the YS100, read the values directly, then convert them to YSS1000 format.
 - » Advantage: You can convert currently running programs and parameters as-is.
 - » Disadvantage: Program comments are not retained.



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