

Technical Information

TI 01B08A02-07EN

YS1000 Replacement Guide YS170 → YS1700 User Program Conversion

YS1000 Series



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 them 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 → YS1700 User Program Conversion	TI 01B08A02-07EN	This manual describes how to read user programs and parameters from the YS100 and convert them to YS1000 data.
YS1000 Replacement Guide SLPC → YS1700 User Program Conversion	TI 01B08A02-08EN	This manual describes how to read user programs and parameters from the SLPC and convert them to YS1000 data.

■ Notice

- The contents of this manual are subject to change without notice as a result of continuing improvements to the instrument's performance and functions.
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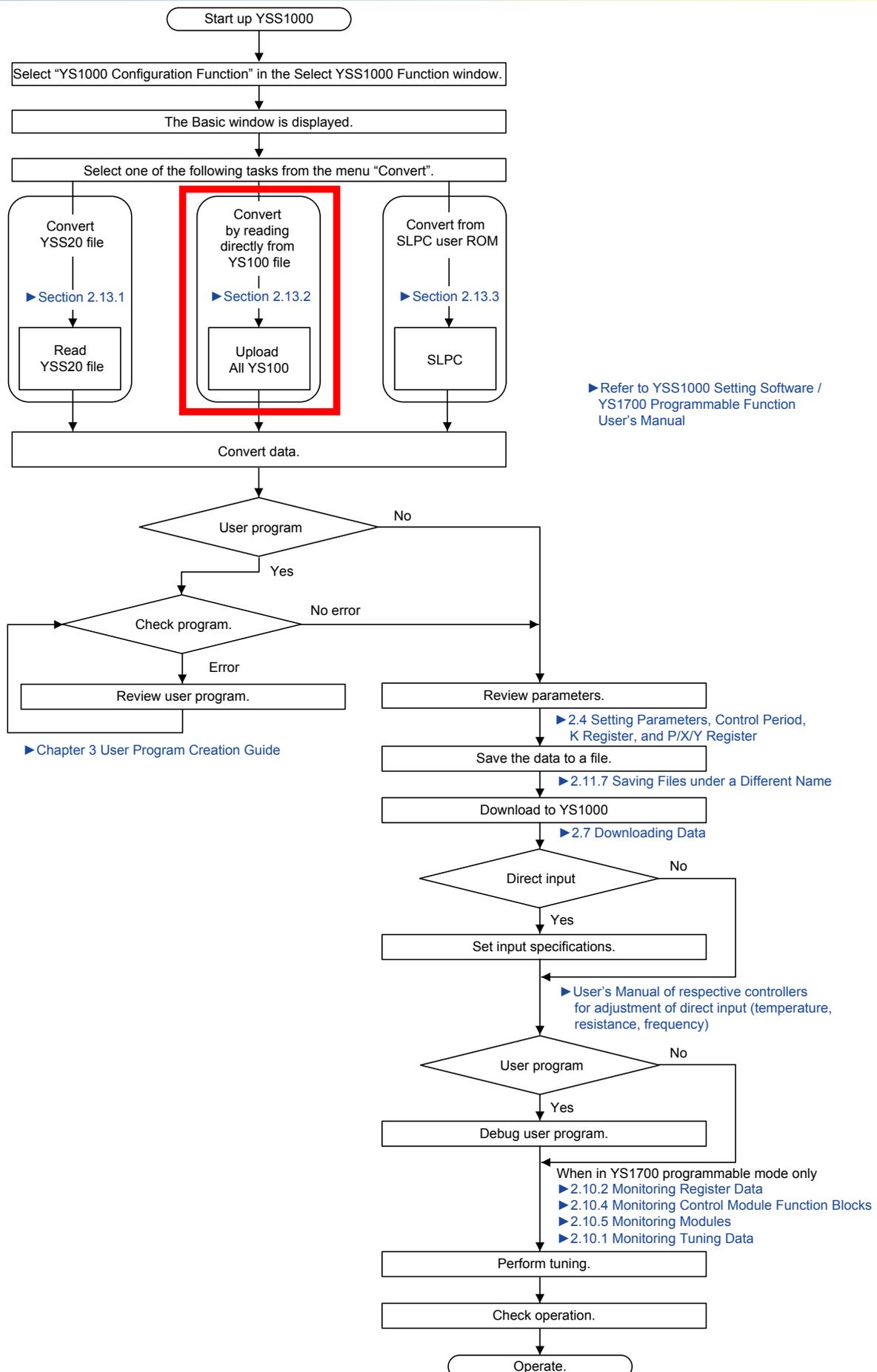
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❖ 1. YS100→YS1000 Instrument Correspondence Table

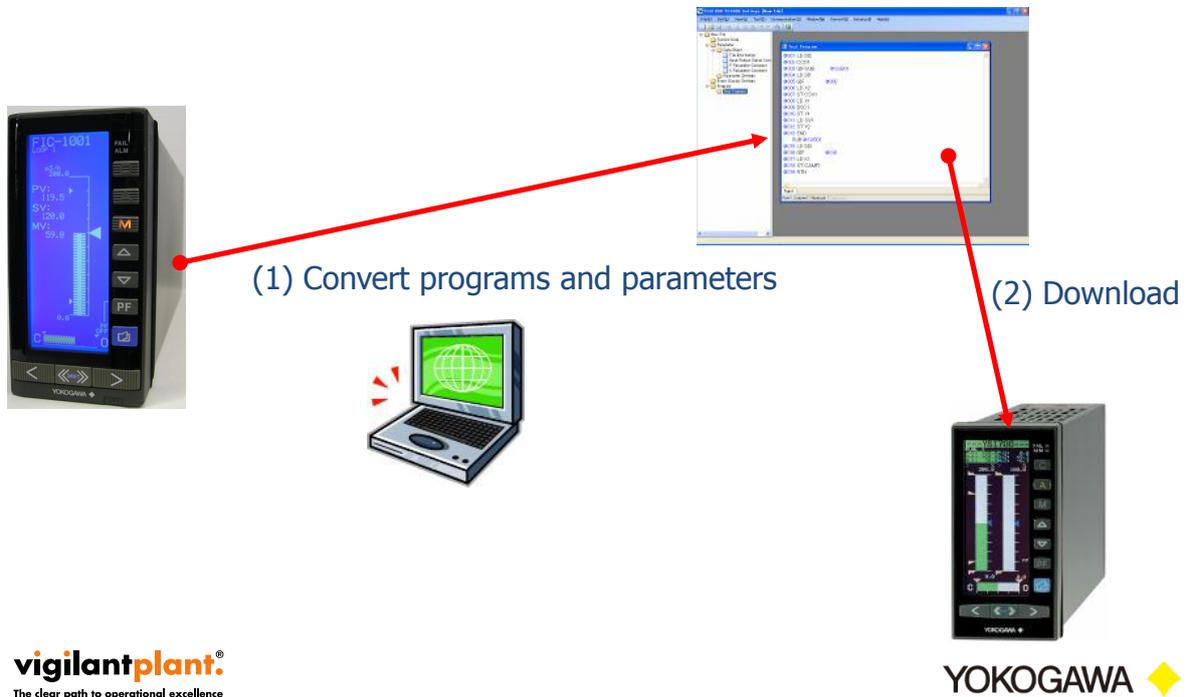
MODEL	Name	YS1000
YS170	Programmable Indicating Controller	YS1700
YS150	Indicating Controller	YS1500
YS135	Manual Setter for SV Setting	YS1350
YS136	Manual Setter for MV Setting	YS1360
YS131	Indicator with Alarm	YS1310

❖ 2. Old model conversion flow chart



❖ 3. Overview of YS100 conversion

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

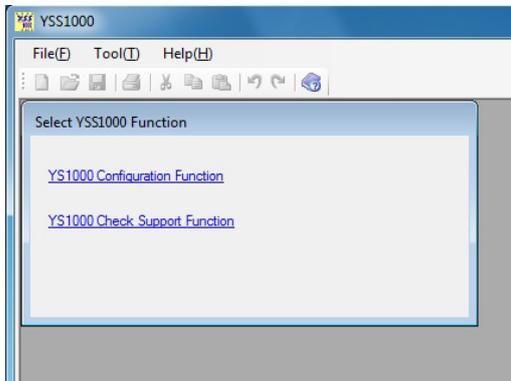


❖ 4. YS100 conversion procedure

- ❖ 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
- ❖ 4.4 Checking and entering system data
- ❖ 4.5 Saving files
- ❖ 4.6 Comparing programs
- ❖ 4.7 Checking programs
- ❖ 4.8 Checking and entering parameters
- ❖ 4.9 Download on the YS1000
- ❖ 4.10 Checking operation (debugging programs)

❖ 4.1 Starting the YSS1000

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

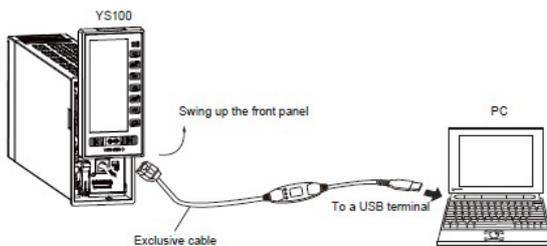


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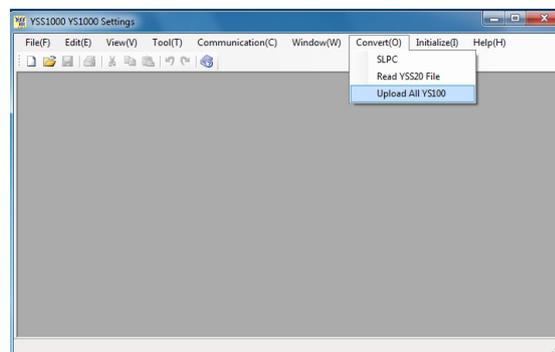
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❖ 4.2 YS100 connection and starting the YS100 upload

- ❖ Connect the YS100



- ❖ Start the YS100 upload
 - ❖ Menu > Convert > Upload All YS100

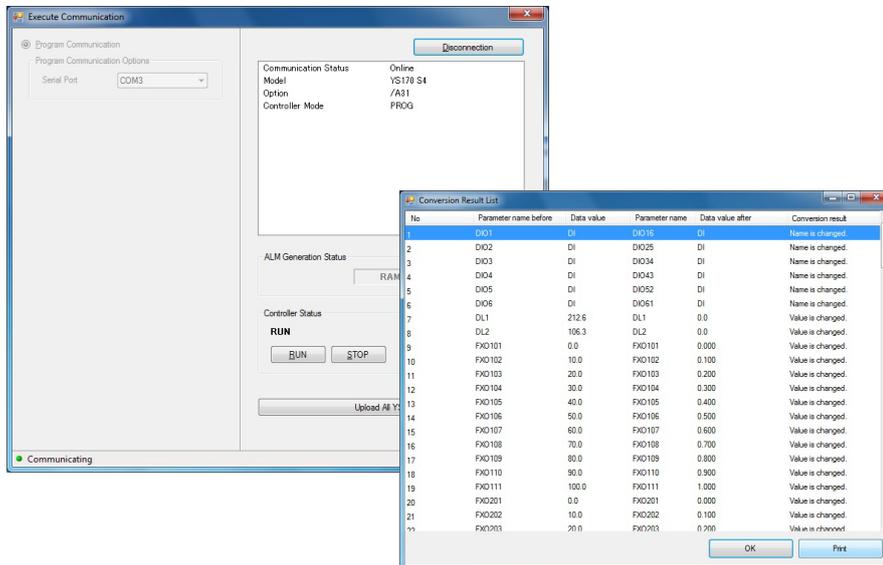


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❖ 4.3 Executing the YS100 upload and checking the converted results

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

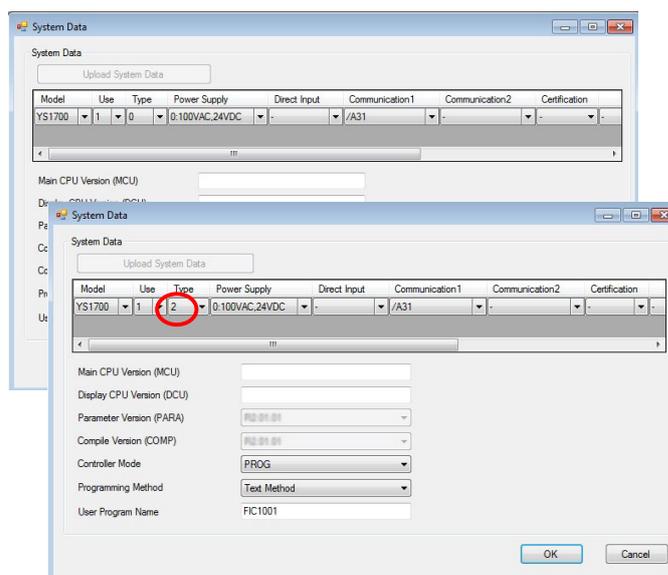


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❖ 4.4 Checking and entering system data

- ❖ 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.
- ❖ (2) Enter system data referencing the downloaded YS1700 name plate

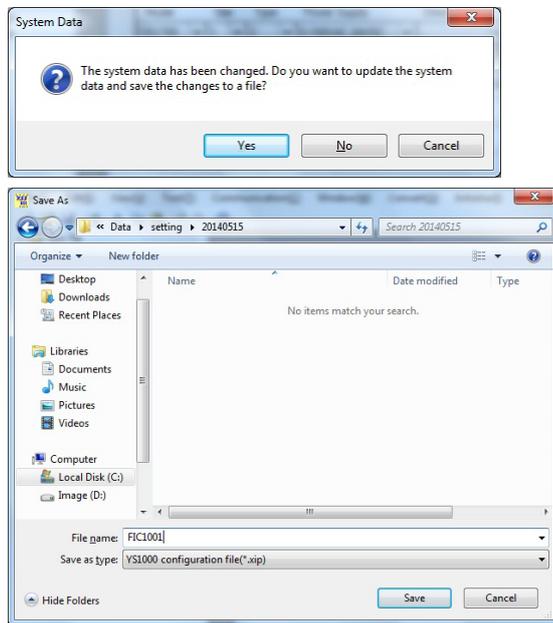


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4.5 Saving files

- When converting system data, follow the prompts to save files.



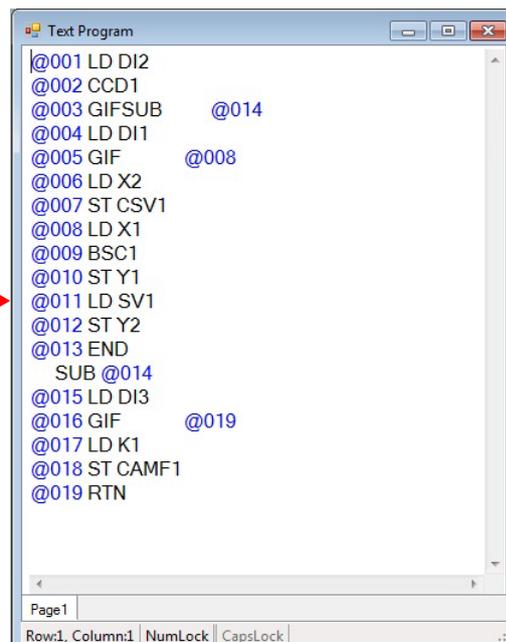
4.6 Comparing programs

- Compare with the YS100 program list
 - (1) Program comments are not retained.

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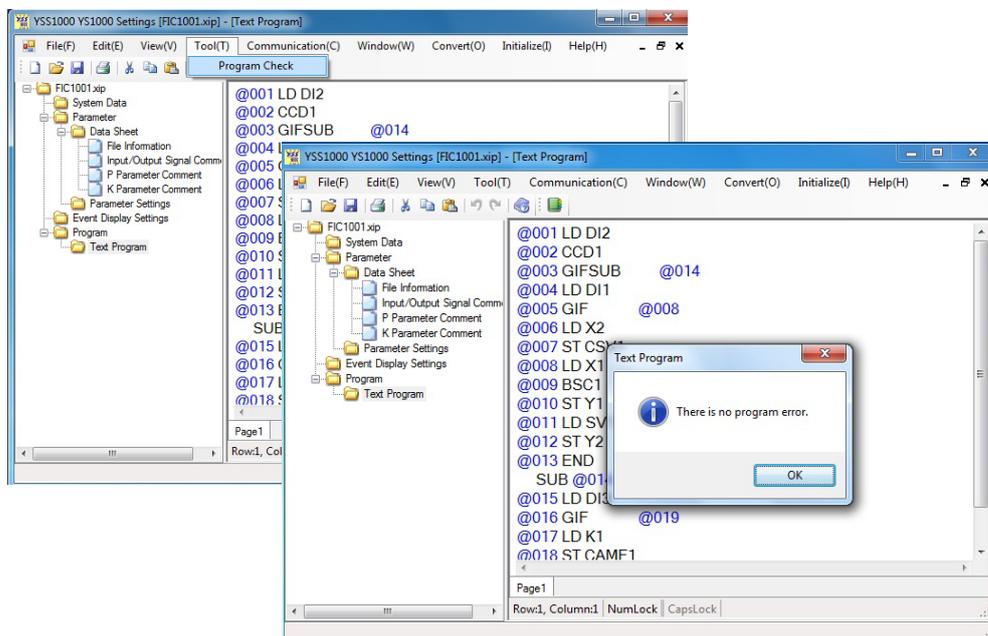
0001 ;Describe your main program from this line to the "END" command.
0002 ;*****
0003 ;      ABC corporation
0004 ;      EFG equipment
0005 ;      TAG FIC-1001
0006 ;      DATE 2006/10/09
0007 ;
0008 ;*****
0009 @MAIN
0010      LD      DI2      ;ieagal signal
0011      CCD1
0012      GIFSUB @GOTOMAN
0013 ;
0014      LD      DI1      ;CASsignal ignore
0015      GIF      @MAIN01
0016 ;
0017      LD      X2      ;CASsignal set
0018      ST      CSV1
0019 ;
0020 @MAIN01
0021      LD      X1      ;control
0022      BSC1
0023      ST      Y1      ;control output
0024 ;
0025      LD      SV1
0026      ST      Y2      ;set output
0027 END      ;The end of main program.
0028
0029
0030 ;Describe your sub program after this line.
0031
0032      SUB      @GOTOMAN
0033      LD      DI3      ;status get
0034      GIF      @SUB_01
0035 ;
0036      LD      K01      ;trasfer MAN
0037      ST      CAMF1
0038 ;
0039 @SUB_01
0040      RTN
0041

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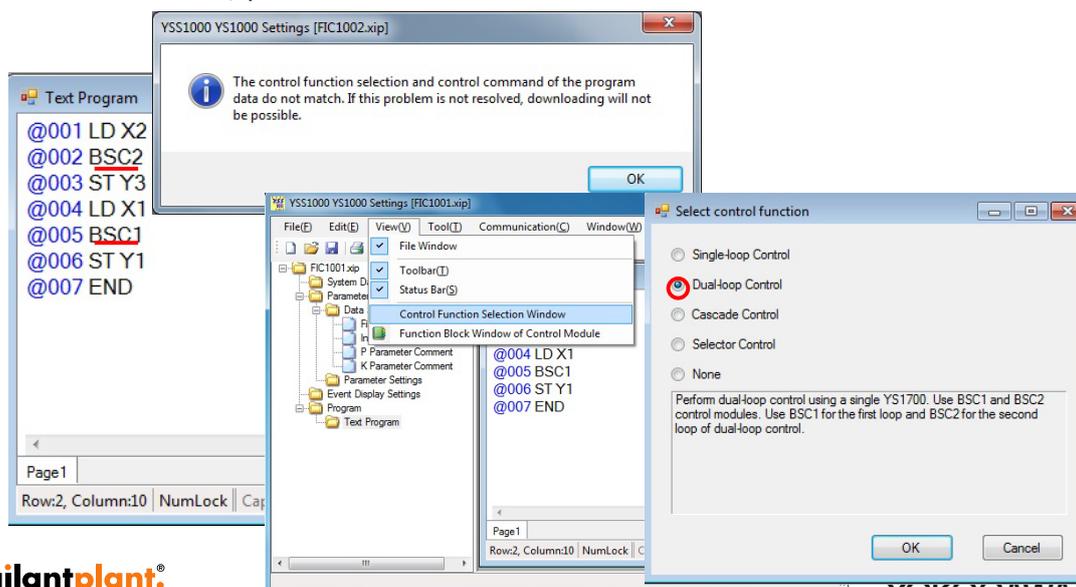
4.7 Checking programs

- ❖ Select Tools > Program check to run a program check.
- ❖ (1) If an error occurs, check the program.



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.



❖ 4.8 Checking and entering parameters (part 1)

- ❖ (1) Be sure to reflect the SV value (since upload data is the initialization start value)



PID 1			
	Name	Setting Value	Unit
▶	SV1	Setpoint value 1	100.0
	PB1	Proportional band 1	100.0 %
	TI1	Integral time 1	20 S
	TD1	Derivative time 1	0 S
	SFA1	Adjustable setpoint filter alpha 1	0.000
	SFB1	Adjustable setpoint filter beta 1	0.000
	GW1	Non-linear control gap width 1	0.0 %
	GG1	Non-linear control gain 1	1.000
	PH1	High limit alarm setpoint for P...	190.1
	PL1	Low limit alarm setpoint for PV1	20.0
	HH1	High-high limit alarm setpoint ...	212.6
	LL1	Low-low limit alarm setpoint f...	-12.6
	DL1	Alarm setpoint for deviation v...	0.0
	VL1	Velocity alarm setpoint for PV1	0.0
	VT1	Velocity alarm time setpoint f...	1 S
	HYS1	Alarm hysteresis 1	4.0
	MH1	High limit setpoint of MV1	100.0 %
	ML1	Low limit setpoint of MV1	0.0 %
	MR1	Manual reset 1	-6.3 %
	RB1	Reset bias 1	0.0 %



❖ 4.8 Checking and entering parameters (part 2)

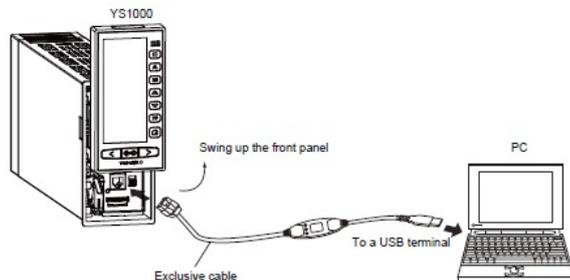
- ❖ Set appropriate default parameters.
 - ❖ (1) For the YS170, the Y3 current/voltage selection is specified by jumpers. Set the Y3 current/voltage under Y3TP.
 - ❖ (2) Also enter settings as appropriate for the expanded screens MTR1, MTR2, and TRND3.

CONFIG 1			
	Name	Setting Value	Unit
▶	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
	SCOOD	Selection of Current Output ...	ALARM
	Y3TP	Analog output 3 current/volt...	1-5V



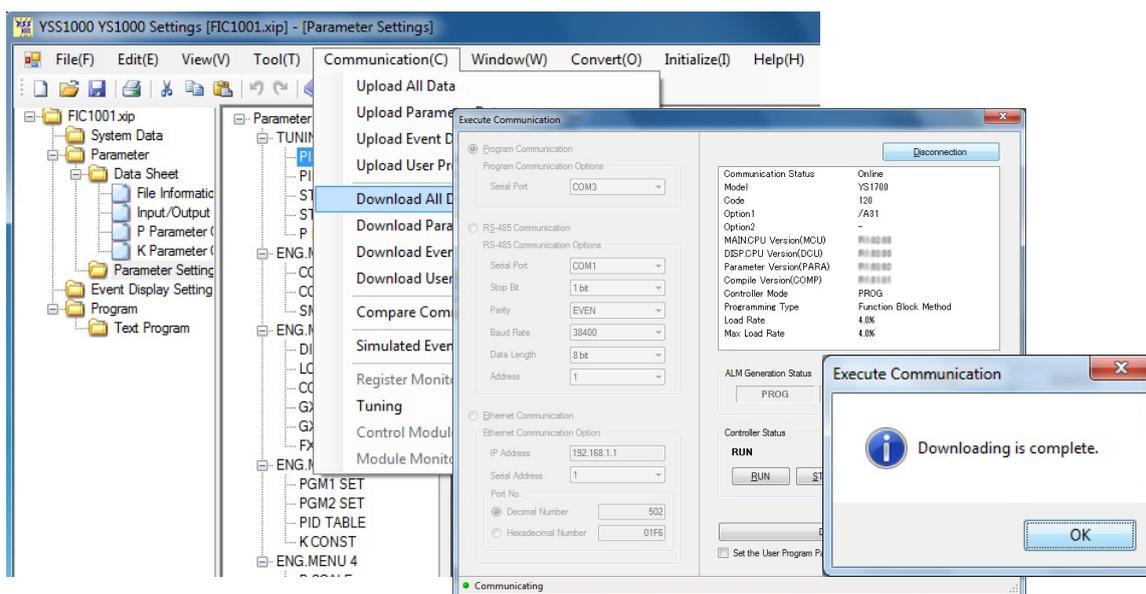
4.9 Downloading on the YS1000

- ❖ Connect the YS1000.



4.9.1 Execute the download

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

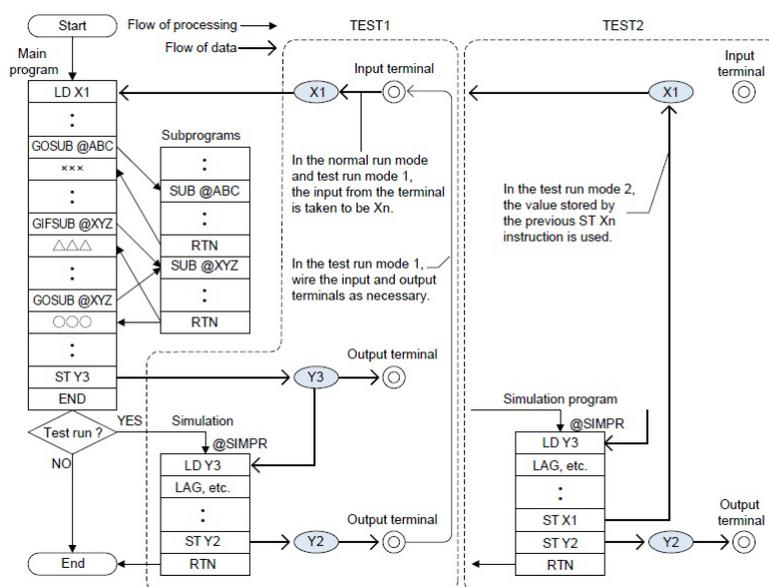


4.10 Checking operation (debugging programs)

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

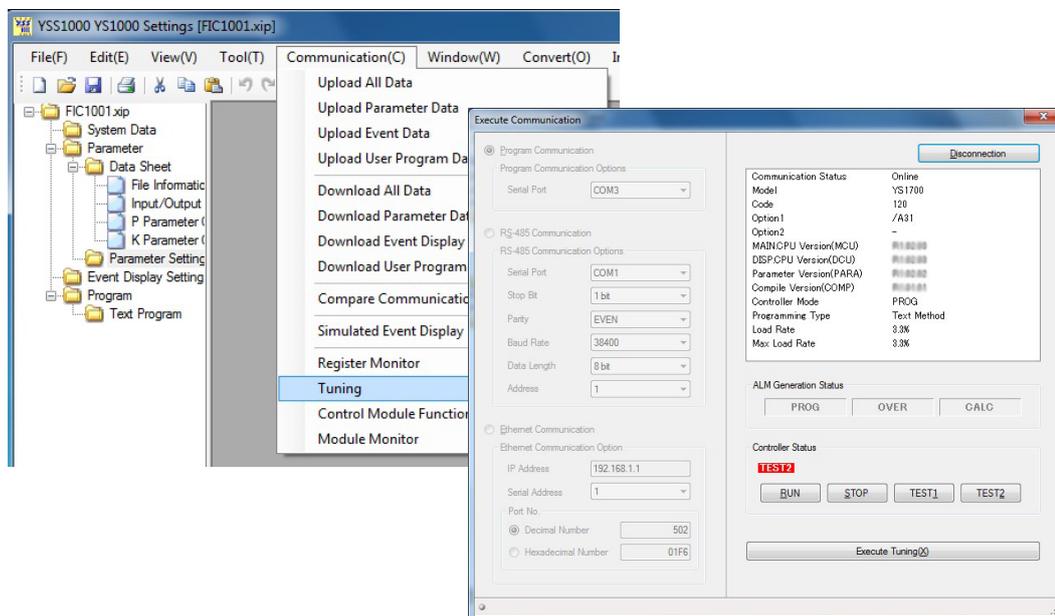
4.10.1 YS1700 operation modes

- (1) RUN mode: Run user programs.
- (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).



4.10.2 Debug with tuning

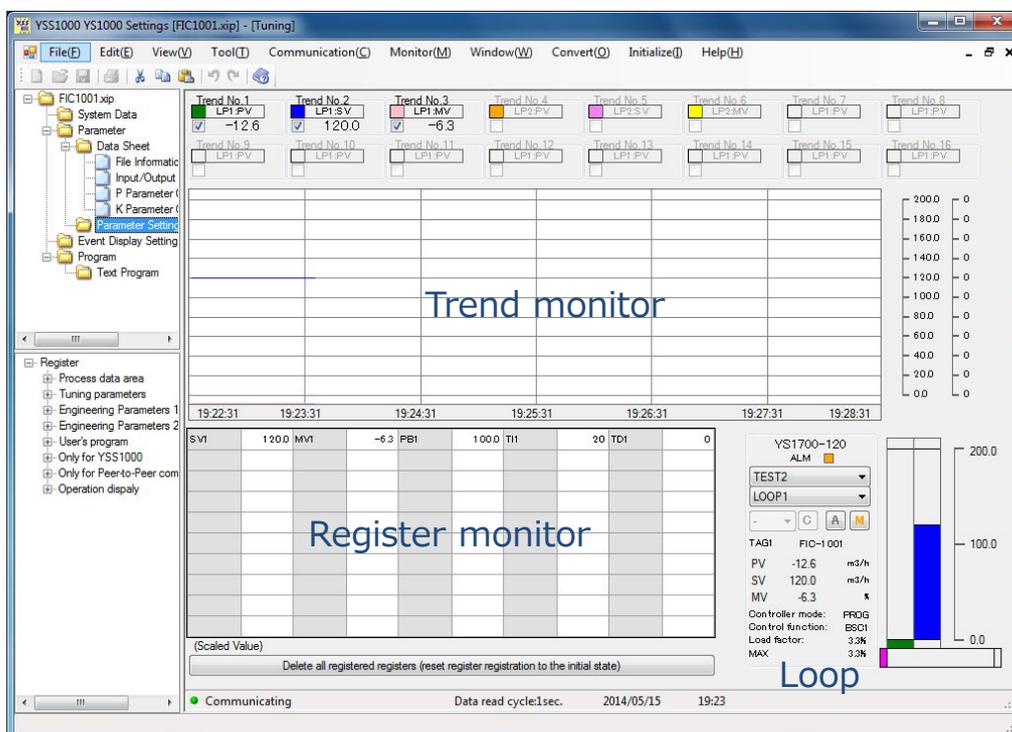
- ❖ (1) Menu > Communication > Tuning
- ❖ (2) Click TEST2, execute tuning



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4.10.3 Description of the tuning window

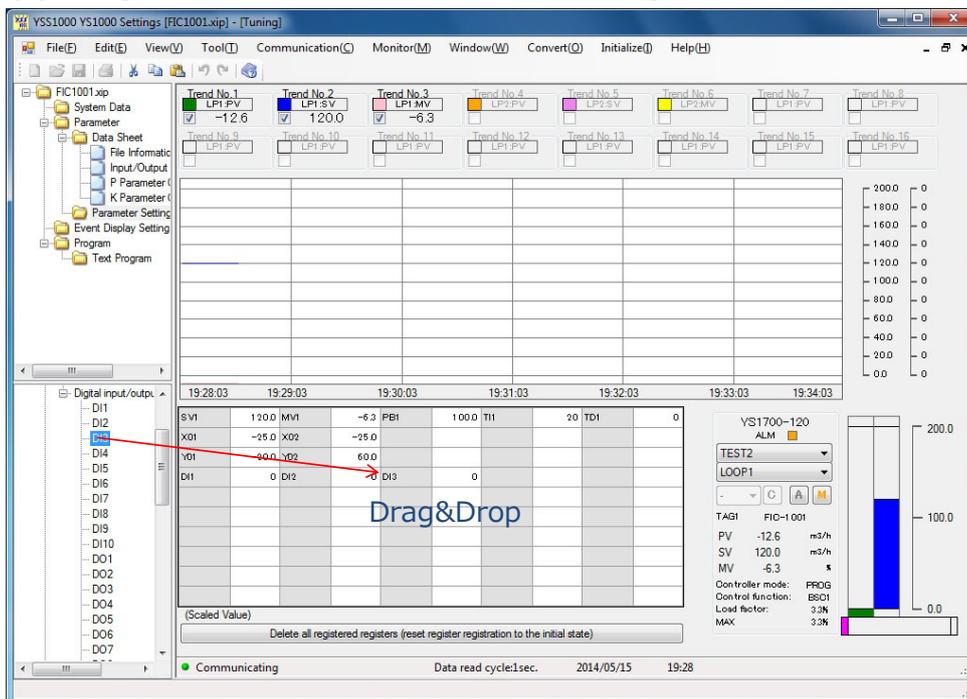


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4.10.4 Debug with tuning

- ❖ (1) Designate all AI, AO, DI, and DO for the register monitor.

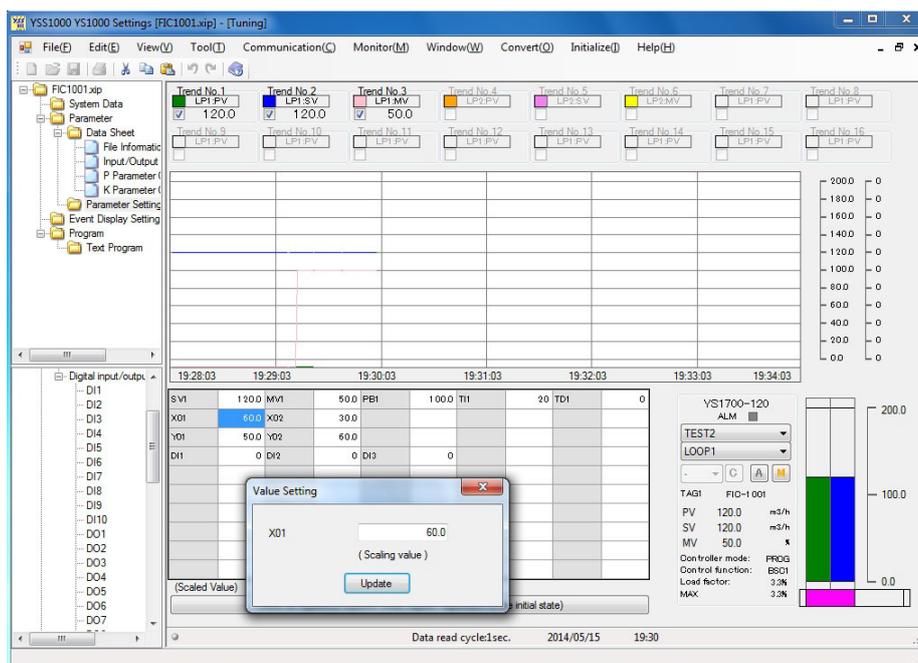


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4.10.4 Debug with tuning

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



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❖ 4.11 Start in RUN mode after debugging

❖ Switch from TEST2 mode to RUN mode.



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❖ 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.

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❖ 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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Revision Information

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