: Status Request (Host computer → Controller) SU
 : System Total Status Request (Host computer → Controller) SF

Format

SU (CR)

Status information

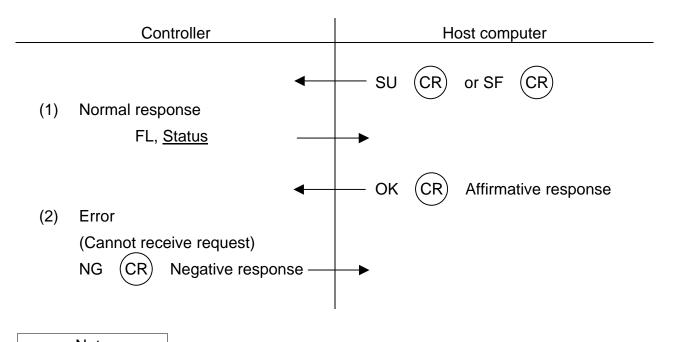
SF (CR

System total status information

Function

The SU command is used to send the internal status (state) of the controller to the host computer. For information on the contents of status file to be transmitted, see the FL (File) command.

Protocol



Note

Put in a delay of about 50 msec until the host computer sends an affirmative response OK to the controller after the host computer has received the status command.

: File (Host computer \leftrightarrow Controller) FL

Format

FL, file contents EOF

• If the data exceeds one text field or 253 bytes, the data is transmitted in two or more texts, as shown below.

FL, file contents 1 File contents 2 File contents 3 EOF

EOF (End of File): File end code (0x1A) — 1 byte
 The STX, ETX, and SUM (if checksum exists) are attached to each text.

Descriptions

The FL command is used as a response command to the command given beforehand.

1. File types and contents

1.1 Types

Description	Corresponding command
RAM file	UL, DL
File directory	CA
Status	SU
Error history	EU
System total status	SF
Version information	VR
Memory read data	MR

(5) System total status

The following information is transmitted as the system total status information in the binary notation (250 bytes).

Motion status	I/O information	Current value data		
52 bytes	64 bytes/	134 bytes —		

Detailed data of each group are tabled below.



I) Motion status

No.	Name	Size (byte)	Description
1	Servo power status	1	0: OFF, 1: ON
2	EMERGENCY stop switch status	1	0: OFF, 1: ON
3	Motion status	1	0: STOP (RESET)
			1: RUN
			2: STOP (RETRY)
			3: STOP (CONT)
4	SU command request	1	0: Without request, 1: With request
5	Current alarm	2 × 10 pcs.	Error of level 8: 1 ~ 367
	information		Error of level 4: 368 ~ 511
			Error of level 2: 512 ~ 735
			Error of level 1: 736 ~ 895
			Other than above: No error
6	Program execution line	2	Line number during program execution
7	Program analysis line	2	Line number during program analysis
8	Program execution task	2	Task number during program execution
9	Program analysis task	2	Task number during program analysis
10	Feed hold status	2	0: OFF, 1: ON
11	Guidance coordinate system status	2	0: Joint, 1: Tool, 2: Work, 3: World
12	Guide rate status	2	0: Slow, 1: Mid, 2: Fast
13	Guide mode status	2	0: Jog, 1: Inching, 2: Free
14	Master mode status	2	0: TEACHING mode, 1: INTERNAL mode 2: EXT (SIG) mode, 3: EXT (HOST) mode
15	Dummy	2	Reserved
16	Power ON time	4	Unit: Min.
17	Program run time	4	Unit: Min.
	Total	52	

II) I/O information

No.	Name	Size (byte)		Desc	ription
1	General input 1	2			
			Bit	Line No.	Signal name
			0	Din1	General input
			1	Din2	General input
			2	Din3	General input
			3	Din4	General input
			4	Din5	General input
			5	Din6	General input
			6	Din7	General input
			7	Din8	General input
			8	Din9	General input
			9	Din10	General input
			10	Din11	General input
			11	Din12	General input
			12	Din13	General input
			13	Din14	General input
			14	Din15	General input
			15	Din16	General input
2	General input 2	2			
			Bit	Line No.	Signal name
			0	Din17	General input
			1	Din18	General input
			2	Din19	General input
			3	Din20	General input
			4	Din21	General input
			5	Din22	General input
			6	Din23	General input
			7	Din24	General input
			8	Din25	General input
			9	Din26	General input
			10	Din27	General input
			11	Din28	General input
			12	Din29	General input
			13	Din30	General input
			14	Din31	General input
			15	Din32	General input

No.	Name	Size (byte)		Desc	ription
3	General input 3	2			
	·		Bit	Line No.	Signal name
			0	Din33	General input
			1	Din34	General input
			2	Din35	General input
			3	Din36	General input
			4	Din37	General input
			5	Din38	General input
			6	Din39	General input
			7	Din40	General input
			8	Din41	General input
			9	Din42	General input
			10	Din43	General input
			11	Din44	General input
			12	Din45	General input
			13	Din46	General input
			14	Din47	General input
			15	Din48	General input
4	General input 4	2	Bit	Line No.	Signal name
			0	Din49	General input
			1	Din50	General input
			2	Din51	General input
			3	Din52	General input
			4	Din53	General input
			5	Din54	General input
			6	Din55	General input
			7	Din56	General input
			8	Din57	General input
			9	Din58	General input
			10	Din59	General input
			11	Din60	General input
			12	Din61	General input
	1			D:= 00	General input
			13	Din62	General Input
			13	Din62 Din63	General input

No.	Name	Size (byte)		Desc	ription
5	Extension input 1	2			
	'		Bit	Line No.	Signal name
			0	Din101	Extension input
			1	Din102	Extension input
			2	Din103	Extension input
			3	Din104	Extension input
			4	Din105	Extension input
			5	Din106	Extension input
			6	Din107	Extension input
			7	Din108	Extension input
			8	Din110	Extension input
			9	Din110	Extension input
			10	Din111	Extension input
			11	Din112	Extension input
			12	Din113	Extension input
			13	Din114	Extension input
			14	Din115	Extension input
			15	Din116	Extension input
6	Extension input 2	2			
			Bit	Line No.	Signal name
			0	Din117	Extension input
			1	Din118	Extension input
			2	Din119	Extension input
			3	Din120	Extension input
			4	Din121	Extension input
			5	Din122	Extension input
			6	Din123	Extension input
			7	Din124	Extension input
			8	Din125	Extension input
			9	Din126	Extension input
			10	Din127	Extension input
			11	Din128	Extension input
			12	Din129	Extension input
			13	Din130	Extension input
			14	Din131	Extension input
			15	Din132	Extension input

No.	Name	Size (byte)		Desc	ription
7	Extension input 3	2			
	'		Bit	Line No.	Signal name
			0	Din133	Extension input
			1	Din134	Extension input
			2	Din135	Extension input
			3	Din136	Extension input
			4	Din137	Extension input
			5	Din138	Extension input
			6	Din139	Extension input
			7	Din140	Extension input
			8	Din141	Extension input
			9	Din142	Extension input
			10	Din143	Extension input
			11	Din144	Extension input
			12	Din145	Extension input
			13	Din146	Extension input
			14	Din147	Extension input
			15	Din148	Extension input
8	Extension input 4	2			
			Bit	Line No.	Signal name
			0	Din149	Extension input
			1	Din150	Extension input
			2	Din151	Extension input
			3	Din152	Extension input
			4	Din153	Extension input
			5	Din154	Extension input
			6	Din155	Extension input
			7	Din156	Extension input
			8	Din157	Extension input
			9	Din158	Extension input
			10	Din159	Extension input
			11	Din160	Extension input
			12	Din161	Extension input
			13	Din162	Extension input
			14	Din163	Extension input
			15	Din164	Extension input

No.	Name	Size (byte)		Desc	ription
9	System input 1	2			
			Bit	Line No.	Signal name
			0	Din201	Hand input
			1	Din202	Hand input
			2	Din203	Hand input
			3	Din204	Hand input
			4	Din205	Hand input
			5	Din206	Hand input
			6	Din207	Hand input
			7	Din208	Hand input
			8	Din210	
			9	Din210	
			10	Din211	
			11	Din212	
			12	Din213	
			13	Din214	
			14	Din215	
			15	Din216	
			<u> </u>		
10	System input 2	2			
			Bit	Line No.	Signal name
			0	Din217	Alarm of level 8
			1	Din218	Alarm of level 8
			2	Din219	Alarm of level 8
			3	Din220	Alarm of level 8
			4	Din221	Alarm of level 4
			5	Din222	Alarm of level 4
			6	Din223	Alarm of level 4
			7	Din224	Alarm of level 4
			8	Din225	Alarm of level 2
			9	Din226	Alarm of level 2
			10	Din227	Alarm of level 2
			11	Din228	Alarm of level 2
			12	Din229	Alarm of level 1
			13	Din230	Alarm of level 1
			14	Din231	Alarm of level 1
			15	Din232	Alarm of level 1

No.	Name	Size (byte)		Desc	ription
11	System input 3	2			
	, ,		Bit	Line No.	Signal name
			0	Din233	
			1	Din234	
			2	Din235	
			3	Din236	
			4	Din237	
			5	Din238	
			6	Din239	
			7	Din240	
			8	Din241	
			9	Din242	
			10	Din243	
			11	Din244	
			12	Din245	
			13	Din246	
			14	Din247	
			15	Din248	
			1	1	
12	System input 4	2			
			Bit	Line No.	Signal name
			0	Din249	STROBE
			1	Din250	PRG_RST
			2	Din251	STEP_RST
			3	Din252	CYC_RST
			4	Din253	DO_RST
			5	Din254	ALM_RST
			6	Din255	RUN
			7	Din256	EX_SVON
			8	Din257	STOP
			9	Din258	CYCLE
			10	Din259	LOW_SPD
			11	Din260	BREAK
			12	Din261	SVOFF
			13	Din262	
			14	Din263	
			15	Din264	

No.	Name	Size (byte)		Descrip	otion
13	System reservation	ervation 2			
	•		Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
14	System reservation	2			
			Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		

No.	Name	Size (byte)		Descrip	otion
15	System reservation	2			
			Bit	Line No.	Signal name
			0		_
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
			•		
16	System reservation	2			
			Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		

No.	Name	Size (byte)		Desc	ription
17	General output 1	2			
	·		Bit	Line No.	Signal name
			0	Dout1	General output
			1	Dout2	General output
			2	Dout3	General output
			3	Dout4	General output
			4	Dout5	General output
			5	Dout6	General output
			6	Dout7	General output
			7	Dout8	General output
			8	Dout9	General output
			9	Dout10	General output
			10	Dout11	General output
			11	Dout12	General output
			12	Dout13	General output
			13	Dout14	General output
			14	Dout15	General output
			15	Dout16	General output
	18 General output 2		Bit 0 1 2 3 4 5 6 7	Line No. Dout17 Dout18 Dout19 Dout20 Dout21 Dout22 Dout23 Dout24	Signal name General output
			8	Dout25	General output
			9	Dout26	General output
			10	Dout27	General output
			11	Dout28	General output
			12	Dout29	General output
			13	Dout30	General output
			14	Dout31	General output
			15	Dout32	General output
					1 2 2 1 27

No.	Name	Size (byte)		Desc	ription
19	General output 3	2			
		_	Bit	Line No.	Signal name
			0	Dout33	General output
			1	Dout34	General output
			2	Dout35	General output
			3	Dout36	General output
			4	Dout37	General output
			5	Dout38	General output
			6	Dout39	General output
			7	Dout40	General output
			8	Dout41	General output
			9	Dout42	General output
			10	Dout43	General output
			11	Dout44	General output
			12	Dout45	General output
			13	Dout46	General output
			14	Dout47	General output
			15	Dout48	General output
20	General output 4	2			
	·		Bit	Line No.	Signal name
			0	Dout49	General output
			1	Dout50	General output
			2	Dout51	General output
			3	Dout52	General output
			4	Dout53	General output
			5	Dout54	General output
			6	Dout55	General output
			7	Dout56	General output
			8	Dout57	General output
			9	Dout58	General output
			10	Dout59	General output
			11	Dout60	General output
			12	Dout61	General output
			13	Dout62	General output
			14	Dout63	General output
			15	Dout64	General output

No.	Name	Size (byte)		Desc	ription
21	Extension output 1	2			
	'		Bit	Line No.	Signal name
			0	Dout101	Extension output
			1	Dout102	Extension output
			2	Dout103	Extension output
			3	Dout104	Extension output
			4	Dout105	Extension output
			5	Dout106	Extension output
			6	Dout107	Extension output
			7	Dout108	Extension output
			8	Dout110	Extension output
			9	Dout110	Extension output
			10	Dout111	Extension output
			11	Dout112	Extension output
			12	Dout113	Extension output
			13	Dout114	Extension output
			14	Dout115	Extension output
			15	Dout116	Extension output
22	Extension output 2	2	Bit	Line No.	Signal name
			0	Dout117	Extension output
			1	Dout118	Extension output
			2	Dout119	Extension output
			3	Dout120	Extension output
			4	Dout121	Extension output
			5	Dout122	Extension output
			6	Dout123	Extension output
			7	Dout124	Extension output
			8	Dout125	Extension output
			9	Dout126	Extension output
			10	Dout127	Extension output
			11	Dout128	Extension output
			12	Dout129	Extension output
			13	Dout130	Extension output
			14	Dout131	Extension output
			15	Dout132	Extension output

No.	Name	Size (byte)		Desc	ription
23	Extension output 3	2			
	•		Bit	Line No.	Signal name
			0	Dout133	Extension output
			1	Dout134	Extension output
			2	Dout135	Extension output
			3	Dout136	Extension output
			4	Dout137	Extension output
			5	Dout138	Extension output
			6	Dout139	Extension output
			7	Dout140	Extension output
			8	Dout141	Extension output
			9	Dout142	Extension output
			10	Dout143	Extension output
			11	Dout144	Extension output
			12	Dout145	Extension output
			13	Dout146	Extension output
			14	Dout147	Extension output
			15	Dout148	Extension output
24	Extension output 4	2	Bit	Line No.	Signal name
			0	Dout149	Extension output
			1	Dout150	Extension output
			2	Dout151	Extension output
			3	Dout152	Extension output
			4	Dout153	Extension output
			5	Dout154	Extension output
			6	Dout155	Extension output
			7	Dout156	Extension output
			8	Dout157	Extension output
			9	Dout158	Extension output
			10	Dout159	Extension output
			11	Dout160	Extension output
			12	Dout161	Extension output
			13	Dout162	Extension output
			14	Dout163	Extension output
			15	Dout164	Extension output
				1	

No.	Name	Size (byte)		Desc	ription
25	System output 1	2			
			Bit	Line No.	Signal name
			0	Dout201	Hand output
			1	Dout202	Hand output
			2	Dout203	Hand output
			3	Dout204	Hand output
			4	Dout205	Hand output
			5	Dout206	Hand output
			6	Dout207	Hand output
			7	Dout208	Hand output
			8	Dout210	
			9	Dout210	
			10	Dout211	
			11	Dout212	
			12	Dout213	
			13	Dout214	
			14	Dout215	
			15	Dout216	
26	System output 2	2	Bit	Line No.	Signal name
			0	Dout217	Seq. parameter
			1	Dout217	Seq. parameter
			2	Dout219	Seq. parameter
			3	Dout210	Seq. parameter
			4	Dout221	Seq. parameter
			5	Dout222	Seq. parameter
			6	Dout223	Seq. parameter
			7	Dout224	Seq. parameter
			8	Dout225	
			9	Dout226	
			10	Dout227	
			11	Dout228	
			12	Dout229	
			13	Dout230	
			14	Dout231	
			17		

No.	Name	Size (byte)		Desc	ription
27	System output 3	2			
			Bit	Line No.	Signal name
			0	Dout233	
			1	Dout234	
			2	Dout235	
			3	Dout236	
			4	Dout237	
			5	Dout238	
			6	Dout239	
			7	Dout240	
			8	Dout241	
			9	Dout242	
			10	Dout243	
			11	Dout244	
			12	Dout245	
			13	Dout246	
			14	Dout247	
			15	Dout248	
28	System output 4	2	D''	1	0: 1
			Bit	Line No.	Signal name
			0	Dout249	EMG_ST
			1	Dout250	SV_RDY
			2	Dout251	A 017
					ACK
			3	Dout252	TEACH
			3 4	Dout252 Dout253	TEACH INT
			3 4 5	Dout252 Dout253 Dout254	TEACH INT EXTSIG
			3 4 5 6	Dout252 Dout253 Dout254 Dout255	TEACH INT EXTSIG EXTHOST
			3 4 5 6 7	Dout252 Dout253 Dout254 Dout255 Dout256	TEACH INT EXTSIG EXTHOST SYS_RDY
			3 4 5 6 7 8	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN
			3 4 5 6 7 8 9	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257 Dout258	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN CYC_END
			3 4 5 6 7 8 9	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257 Dout258 Dout259	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN CYC_END LOW_ST
			3 4 5 6 7 8 9 10	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257 Dout258 Dout259 Dout260	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN CYC_END LOW_ST CYC_ST
			3 4 5 6 7 8 9 10 11	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257 Dout258 Dout259 Dout260 Dout261	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN CYC_END LOW_ST CYC_ST BT_ALM
			3 4 5 6 7 8 9 10 11 12	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257 Dout258 Dout259 Dout260 Dout261 Dout262	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN CYC_END LOW_ST CYC_ST
			3 4 5 6 7 8 9 10 11	Dout252 Dout253 Dout254 Dout255 Dout256 Dout257 Dout258 Dout259 Dout260 Dout261	TEACH INT EXTSIG EXTHOST SYS_RDY AUTORUN CYC_END LOW_ST CYC_ST BT_ALM

No.	Name	Size (byte)		Descrip	otion
29	System reservation	2			
	•		Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
30	System reservation	2			
			Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		

No.	Name	Size (byte)		Descrip	otion
31	System reservation	2			
			Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
32	System reservation	2			
			Bit	Line No.	Signal name
			0		
			1		
			2		
			3		
			4		
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
			-		



III) Current value data

No.	Name	Size (byte)	Description
1	Joint coordinate value	4 × 6 axes	As shown below, values are set in the order of axis 1 to axis 6.
2	World coordinate value	4 × 6 axes	Axis 1 (float)
3	Work coordinate value	4 × 6 axes	Axis 2 (float)
			Axis 3 (float)
			Axis 4 (float)
			Axis 5 (float)
			Axis 6 (float)
4	Work coordinate name	20	Name of work coordinate system
5	Tool coordinate name	20	Name of tool coordinate system
6	Base coordinate name	20	Name of base coordinate system
7	Reserved	2	
	Total	134	