

Saving and viewing 'current configuration' files and error logs

Overview

This application note outlines how to save and view the current configuration file and error logs of a RCU compensator system. The current configuration file can be evaluated by the Renishaw technical support team to determine if the configuration is correct or has been corrupted. Advice can then be given on how to reset the configuration.

Another utility that is useful in assisting with fault finding is the 'data logging' function which will provide information on the operation of the system prior to a failure occuring. Details of this can be found at the end of the report.

The following steps are completed using the 'RCU-CS' software.

Saving configuration files

The configuration for the complete system will generally be required.

Ensuring the complete system is connected together with the appropriate 'fast link' cables and using the serial port link on any of the system RCUs labelled 'PC'; select save from the File 'drop down menu' and save in your chosen location.



If an individual RCU's configuration is requested by Renishaw technical staff, switch off the power to the RCU10s then disconnect all 'fast link' cables, connect your PC to the required RCU10 using the serial port link. Turn the unit back on and repeat the above process to save the configuration file. If another RCU's configuration is required, change the serial port link and repeat the process.

Viewing saved configuration files

Ensuring no RCU's are connected to the computer, load the 'RCU CS' software. Select Open from the File 'drop down menu'



Open the file (.rcf) you would like to view. This data can be referred to your local Renishaw subsidiary who will check the settings and offer feedback on how to correct them if required.



Enabling data logging

To assist Renishaw with fault finding, running your system until the point of failure with data logging enabled could provide vital information for diagnosis.

The data log for the complete system will generally be required.

Ensuring the complete system is connected using the serial port link; select data log from the Toolbar.



This will bring up the data log configuration window.

Select 'enabled' from the drop down menu and click 'ok'. There is a size constraint (which can be increased) on the log configuration; however the predetermined limit (100,000 events) should be sufficient.

Data Log Configuration	n		
Current Details			
Data Logging :	Enabled 💌		
Number of Records :	Disabled Enabled		
Max Log Size :	100000		
Clea	Save		
08	Cancel		

Once enabled the icon on the Toolbar will change to represent 'data log on'.



Select one of the three windows (Compensation/Sensors/Diagnostics).



Logging will only take place when a window is opened (compensation, sensors, diganostics).

Three files will be created (FILENAME_Comp.txt, FILENAME_Sens.txt and FILENAME_Stat.txt) irrespective of which window is selected.

Data will only be saved in the opened windows file.

To save data in other files, the corresponding window/s need to be opened. All three windows can be opened at the same time.

One file per live window will be saved irrespective of how many RCUs are connected.

This data can then be referred to your local Renishaw subsidiary for analysis.

Saving error log details

To be able to access the error log detail it first needs to be saved to a PC.

The error log for the complete system will generally be required.

Ensuring the complete system is connected together with the appropriate 'fast link' cables and using the serial port link labelled 'PC'; select error log from the Tools 'drop down menu' in RCU-CS.



This will bring up the Error Log window. Select save from the Log 'drop down menu' and save in your chosen location.

g Data			
Save	e	RCU Address	Error Code
-	16		400
Clear	47	1	22500
5.4	44	1	400
Exit	34	1	450
03/04/13	16:57:34	1	410
03/04/13	16.54.07	1	400
03/04/13	16:51:11	1	400
03/04/13	16:46:44	1	400
03/04/13	16:41:25	1	440
03/04/13	16:39:02	1	450
03/04/13	16:36:58	1	410
03/04/13	16:36:34	1	400
03/04/13	16:34:38	1	20
03/04/13	16:33:46	1	20
22/04/13	20:53:49	1	22510
22/04/13	20.53.47	1	410

If an individual RCU's error log is requested, switch off the power to the RCU10s then disconnect all 'fast link' cables, connect to the required RCU10 using the serial port link. Turn the unit back on and repeat the above process to save the file. If another RCU's error log is required, change the serial port link and repeat the process.

Viewing saved error log files

To view error logs (.txt) open the relevant saved file. All errors logged will be displayed in a spreadsheet format. This data can be referred to your local Renishaw subsidiary for analysis.

error log:	s - Notepad											
e Edit	Format View	Help										
RCU Ad	dx Da	te Time	Status	op state	Error	In Count	Out Count	Comp Lambda	Position OC	ScalerInj	Pulses	
	0 03/04/	13 17:03:03	0x80808061	0x30102880	0x440	0	0	0.632818260043	0	64800		
	0 03/04/	13 17:03:08	0x8000080a1	0x30102880	0x450	18500	18202	0.632818260043	18202	64800	ő	
	0 03/04/	13 17:24:20	0+80008061	0+20102880	0+410	18500	18303	0.633618360043	18303	64800	ě	
	0 03/04/	12 17:27:10	0x80008001	0x30102000	0x400	6433	6350	0.632818260043	6350	64800		
	0 03/04/	13 17-37-55	0x800080a1	0x20102880	0x410	6454	6381	0.632818260043	6281	64800	ő	
	0 03/04/	13 17:20:38	0x88008041	0+30102880	0+400	1070	2002	0.633818360043	1000	64800	ě	
	0 03/04/	12 17:35:04	0x808080a1	0x30102880	0x400	-18872	-18660	0.632818260043	18660	64800	ő	
	0 02/04/	12 17-25-04	0x80008061	0x20102880	0x410	-10072	-18660	0.632818260043	-18660	64800	ő	
	0 03/04/	13 17.46.33	0x80008061	0x30102880	0×400	-15204	-15033	0.632818260043	-15033	64800	ě	
	0 03/04/	12 17:45:33	0x800080a1	0x30102880	0x410	15204	15033	0.632818260043	-15033	64800	ŏ	
	0 02/04/	12 17-45-22	0x80008061	0x20102880	0x450	-15204	-15022	0.622818260042	-15022	64800	ő	
	0 10/04/	13 20.42.12	0x88008081	0x301028c0	0x410	-13204	-13033	0.632818260043	-13033	64800	õ	
	0 10/04/	13 20:42:14	0x80008061	0x301028c0	0x22510	ő	ŏ	0.632818260043	ő	64800	ŏ	
	0 10/04	12 20:49:12	0x8061	0x201028c0	0x22100	ő	ő	0.622818260042	ő	64800	ő	
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	0 26/04/	13 18:33:50	0x88008081	0x301028c0	0x440	ő	ŏ	0.632818260043	ő	64800	õ	
	0 26/04/	11 18:11:52	0x80008061	0x301028c0	0x22540	õ	0	0.632818260043	ő	64800	õ	
	0 03/04/	13 16:36:34	0x800080a1	0x30102880	0x400	-6031	-5063	0.632818260043	- 5063	64800	õ	
	0 03/04/	13 16:36:58	0x80008061	0x30102880	0x410	-6057	-5989	0.632818260043	-5989	64800	õ	
	0 03/04/	13 16:39:02	0x800080a1	0x30102880	0x450	-6015	-5947	0.632818260043	-5947	64800	ō	
	0 03/04/	13 16:41:25	0x88008081	0x30102880	0x440	0	0	0.632818260043	0	51840	õ	
	0 03/04/	13 16:46:44	0x88008081	0x30102a80	0x400	Ő.	Ó	0.632818260043	Ó	64800	Ö	
	0 03/04/	13 16:51:11	0x88008081	0x30102880	0x400	o	õ	0.632818260043	Ő	64800	õ	
	0 03/04/	13 16:54:07	0x88008081	0x30102880	0x400	Ő	Ő	0.632818260043	ŏ	64800	Ö	
	0 03/04/	13 16:57:34	0x80808061	0x30102880	0x410	0	Ó	0.632818260043	0	64800	Ö	
	0 03/04/	13 16:57:34	0x80008061	0x30102880	0x450	0	0	0,632818260043	0	64800	0	
	0 03/04/	13 17:00:44	0x88008081	0x30102880	0x400	0	0	0.632818260043	0	64800	0	
	0 03/04/	13 17:00:47	0x80008061	0x30102880	0x22500	Ó	0	0.632818260043	0	64800	ō	
	0 03/04/	13 17:01:16	0x88008081	0x30102880	0x400	0	0	0.632818260043	0	64800	0	

Renishaw plc

New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR United Kingdom

T +44 (0) 1453 524524 F +44 (0) 1453 524901 E uk@renishaw.com

www.renishaw.com



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