

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.

Log	Data				
	Save	e	RCU Address	Error Code	
	Clear	16		400	
		47	1	22500	-
	Exit	44	1	400	
		34	1	450	
	03/04/131	6.57:34	1	410	
	03/04/131	6.54.07	1	400	
	03/04/131	6.51:11	1	400	
	03/04/131	6:46:44	1	400	
	03/04/131	6:41:25	1	440	
	03/04/131	6.39.02	1	450	
	03/04/131	6.36.58	1	410	
	03/04/131	6.36.34	1	400	
	03/04/131	6.34.38	1	20	
	03/04/131	6.33.46	1	20	
	22/04/13 2	0.53.49	1	22510	
	22/04/13 2	0.53.47	1	410	-
Ξ.					-

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 lo	ogs - N	otepad											×
le Edit	t For	mat View H	lelp										
RCU A		Date	Time	Status	op state	Error	In Count	Out Count	Comp Lambda		ScalerInj		. ×
	0	03/04/13	17:03:03	0x80808061	0x30102880	0x440	0	0	0.632818260043	0	64800	0	
	0	03/04/13	17:03:08	0x808080a1	0x30102880	0x450	0	0	0.632818260043	0	64800	0	
	0	03/04/13	17:24:28	0x800080a1	0x30102880	0x400	18500	18292	0.632818260043	18292	64800	0	
	0	03/04/13	17:24:28	0x80008061	0x30102880	0x410	18500	18292	0.632818260043	18292	64800	0	
	0	03/04/13	17:27:19	0x800080a1	0x30102880	0x400	6432	6359	0.632818260043	6359	64800	0	
	0	03/04/13	17:27:55	0x800080a1	0x30102880	0x410	6454	6381	0.632818260043	6381	64800	0	
	0	03/04/13	17:30:28	0x88008041	0x30102880	0x400	4039	3993	0.632818260043	3993	64800	0	
	0	03/04/13	17:35:04	0x808080a1	0x30102880	0x400	-18872	-18660	0.632818260043	-18660	64800	0	
	0	03/04/13	17:35:04	0x80008061	0x30102880	0x410	-18872	-18660	0.632818260043	-18660	64800	0	
	0	03/04/13	17:45:32	0x80008061	0x30102880	0x400	-15204	-15033	0.632818260043	-15033	64800	0	
	0	03/04/13	17:45:32	0x800080a1	0x30102880	0x410	-15204	-15033	0.632818260043	-15033	64800	0	
	0	03/04/13	17:45:32	0x80008061	0x30102880	0x450	-15204	-15033	0.632818260043	-15033	64800	0	
	0	10/04/13	20:42:12	0x88008081	0x301028c0	0x410	0	0	0.632818260043	0	64800	0	
	0	10/04/13	20:42:14	0x80008061	0x301028c0	0x22510	0	0	0.632818260043	0	64800	0	
	0	10/04/13	20:49:12	0x8061	0x301028c0	0x22100	0	0	0.632818260043	0	64800	0	
	0	10/04/13	20:52:46	0x800080a1	0x301028c0	0x20	-1000	-988	0.632818260043	-988	64800	0	
	0	22/04/13	20:53:47	0x88008081	0x301028c0	0x410	0	0	0.632818260043	0	64800	0	
	0	22/04/13	20:53:49	0x80008061	0x301028c0	0x22510	0	0	0.632818260043	0	64800	0	
	0	26/04/13	18:33:50	0x88008081	0x301028c0	0x440	0	0	0.632818260043	0	64800	0	
	0	26/04/13	18:33:52	0x80008061	0x301028c0	0x22540	0	0	0.632818260043	0	64800	0	
	0	03/04/13	16:36:34	0x800080a1	0x30102880	0x400	-6031	-5963	0.632818260043	-5963	64800	0	
	0	03/04/13	16:36:58	0x80008061	0x30102880	0x410	-6057	-5989	0.632818260043	-5989	64800	0	
	0	03/04/13	16:39:02	0x800080a1	0x30102880	0x450	-6015	-5947	0.632818260043	-5947	64800	0	
	0	03/04/13	16:41:25	0x88008081	0x30102880	0x440	0	0	0.632818260043	0	51840	0	
	0	03/04/13	16:46:44	0x88008081	0x30102a80	0x400	0	0	0.632818260043	0	64800	0	
	0	03/04/13	16:51:11	0x88008081	0x30102880	0x400	0	0	0.632818260043	0	64800	0	
	0	03/04/13	16:54:07	0x88008081	0x30102880	0x400	0	0	0.632818260043	0	64800	0	
	0	03/04/13	16:57:34	0x80808061	0x30102880	0x410	0	0	0.632818260043	0	64800	0	
	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	0	0	0.632818260043	0	64800	0	
	0	03/04/13	17:01:16	0x88008081	0x30102880	0x400	0	0	0.632818260043	0	64800	0	
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Products include:

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- ٠ Encoder systems for high accuracy linear, angle and rotary position feedback
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