

MagIC Net – Adding a Pressure Recorder to a Method

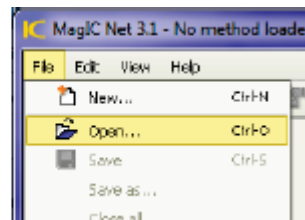
Technology: MagIC Net – Ion Chromatography

Introduction

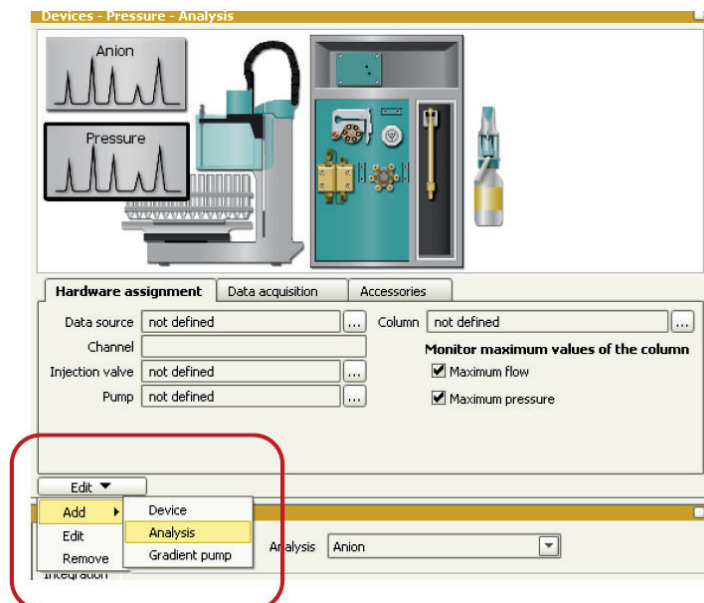
This document outlines the procedure for creating a pressure recorder to a method in MagIC Net. Adding a pressure recorder to the method will provide valuable information regarding the system for issues regarding low pressure, pressure drops, or pressure increases. A pressure variation of 0.5MPa is deemed acceptable.

Instructions

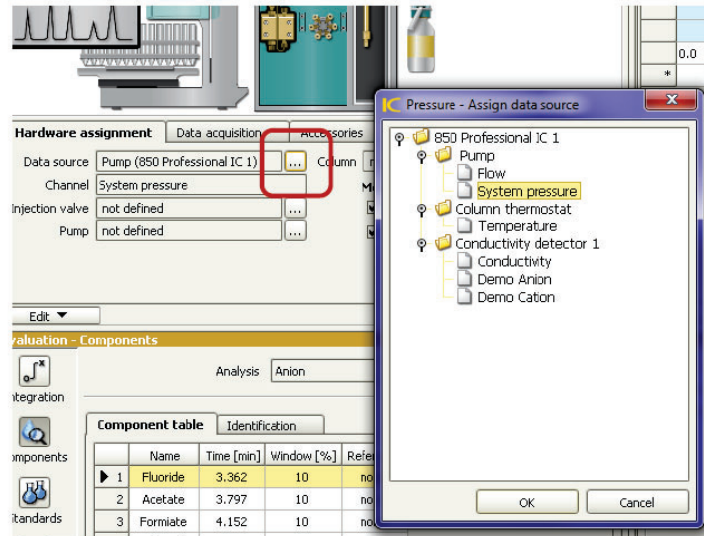
1. Open MagIC Net, go to the Method program part, and open the method by clicking File > Open.



2. In the Devices sub-window, click Edit > Add > Analysis. Name this analysis Pressure.



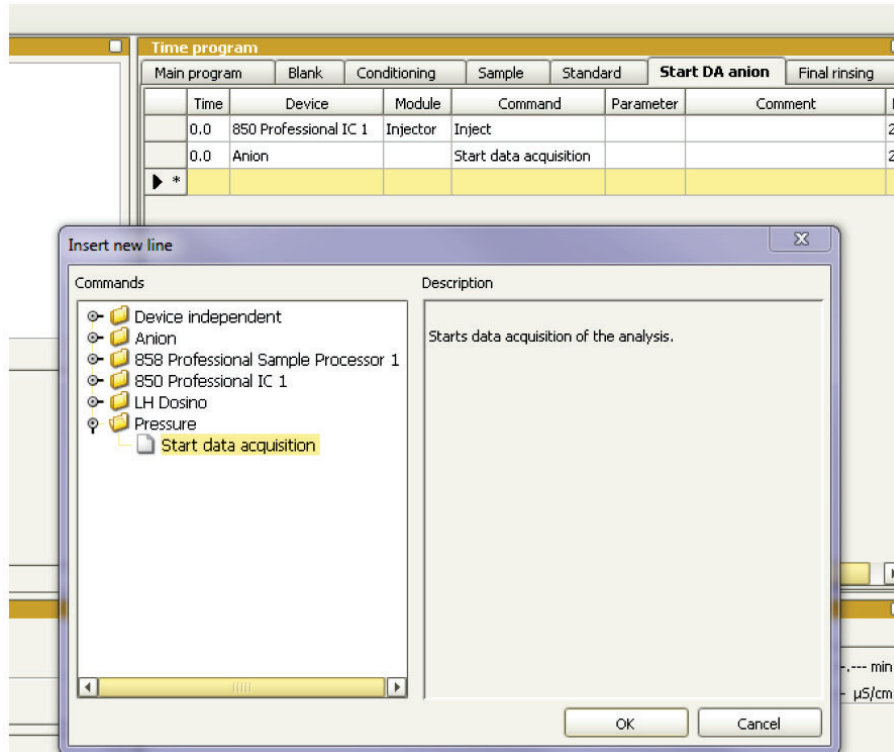
3. Select the Pressure analysis, and next to the Data source box, click the [...] button. Select the IC > Pump > System Pressure > Click OK.



4. Leave the Injection valve, Pump, and Column as "not defined." Also, uncheck Maximum Flow and Maximum pressure below the monitoring options.
5. In the Data Acquisition tab, make sure to set the same Recording time as the main analysis.



6. In the time program, add a Start Data acquisition command next to every Start data acquisition command for the main analysis (it's possible that it may be in several subprograms, depending on the method). Click Edit > New > Select Pressure > Start Data acquisition > OK. Time will be the same as the main data acquisition command. Screenshots can be found on the next page.



Time program							
Main program							
Time	Device	Module	Command	Parameter	Comment	No.	
0.0	930 Compact IC Flex 1	MSM	Step	Minimal regeneration time 10.0 min	MSM Step	1	
			Wait	Continue after 3 min.		17	
	919 IC Autosampler plus 1	Tower	Move (Rack)	Sample position	Move to sample	2	
	919 IC Autosampler plus 1	Tower	Lift	Work position	Needle down	3	
0.0	919 IC Autosampler plus 1	Peristaltic	On/Off	On, Rate=3	Peri Pump On	4	
0.0	930 Compact IC Flex 1	Injector	Fill		Fill Sample Loop	6	
2.0	919 IC Autosampler plus 1	Peristaltic	On/Off	Off	Peri Pump Off after 2 minutes	5	
2.0	930 Compact IC Flex 1	Injector	Inject		Inject Sample	7	
2.0	Anions		Start data acquisition		Start Data Acquisition	8	
2.0	Pressure		Start data acquisition			18	
	919 IC Autosampler plus 1	Tower	Move (Rack)	Special beaker 1	Move to rinse beaker	9	
	919 IC Autosampler plus 1	Tower	Lift	Work position	Needle to rinse beaker	10	
0.0	919 IC Autosampler plus 1	Peristaltic	On/Off	On, Rate=3	Peri Pump On - Rinsing	11	
2.0	919 IC Autosampler plus 1	Peristaltic	On/Off	Off	Stop Peri Pump Rinse after ...	12	
	919 IC Autosampler plus 1	Tower	Move (Rack)	Special beaker 1	Move to rinse beaker	13	
	919 IC Autosampler plus 1	Tower	Lift	Work position	Needle to rinse beaker	14	
0.0	919 IC Autosampler plus 1	Peristaltic	On/Off	On, Rate=3	Rinse for 2 min	15	
2.0	919 IC Autosampler plus 1	Peristaltic	On/Off	Off		16	
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Times for the original analysis, in this case "Anions" must match the newly created "Pressure" Analysis

- Save the method (File > Save) and run an analysis to verify that the system is recording pressure. In the database (after a run), click on the determination and check the "Pressure" tab in the curves sub-window. See the screenshot on the next page.

