

Customer Support Note 011

Recording inlet total flow on Agilent 7890 GC

Disclaimer: It is vital that this Customer Support Note is read carefully before proceeding and that any instructions contained within the document are followed closely. Markes International will not accept responsibility for any damage done to instrumentation or personnel if any instructions within this document are not followed exactly. Any ongoing warranty or contract may be voided if failure to follow these instructions results in damage to the instrumentation. If anything is unclear, you must clarify the details with a Markes representative before proceeding.

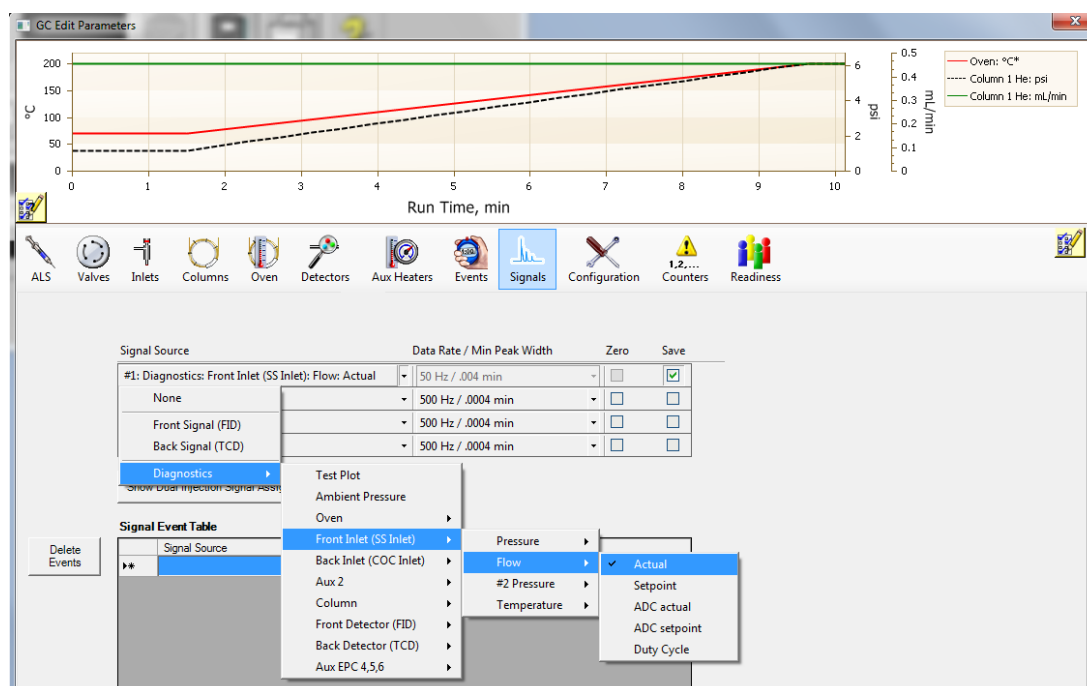
A useful diagnostic tool when evaluating thermal desorption data is to monitor the total flow supplied by the SSL EPC unit of the Agilent 7890 GC during injection of the sample from the focusing trap (trap fire). Any variability or instability of flow at this stage of the thermal desorption cycle will reflect non-reproducibility of split flow and potential for poor sample data precision.

The total flow can be recorded as a separate signal to the detector output, and therefore will appear as a separate window in ChemStation/MassHunter Data Analysis when the file is opened. As a result, multiple files can be overlaid and total flow readings compared across samples.

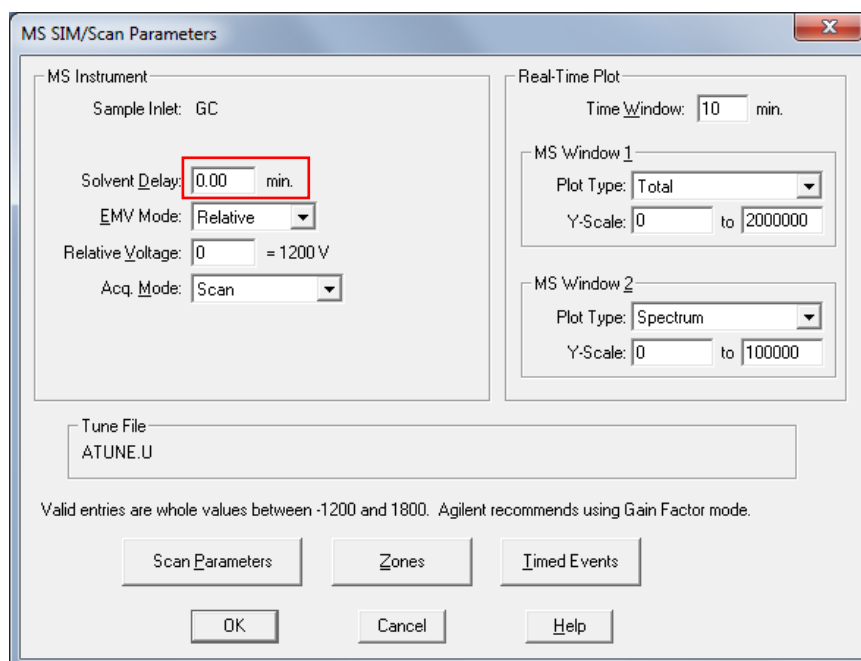
1. Recording inlet total flow on Agilent 7890 GC in ChemStation

1.1 Configuring ChemStation Data Acquisition

- Click on the 'Signals' section of the 'GC Edit Parameters' window, and select the inlet that is supplying the gas. Select the total flow signal:



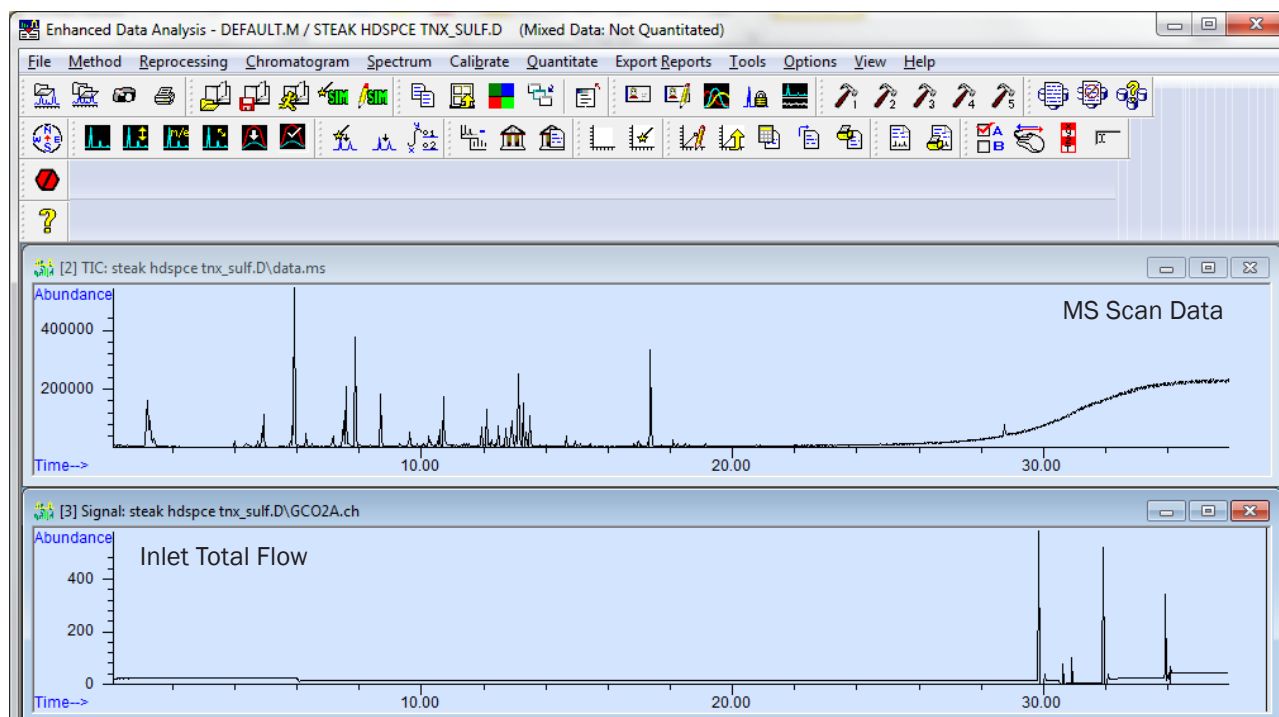
- Ensure there is a zero-minute solvent delay set up in the MS SIM/Scan Parameters window (this ensures that data is collected at the time of injection (time = 0 min)):



- Save the method before proceeding to run any samples.

1.2 Viewing the file in ChemStation Data Analysis

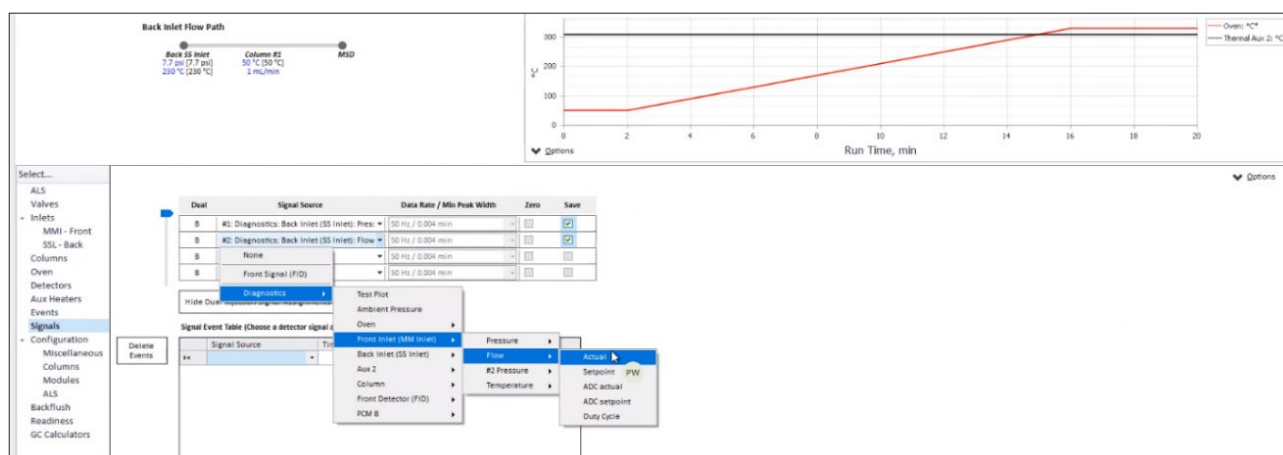
- Open the ChemStation file in 'Data Analysis' as normal. There will now be two windows on the screen:



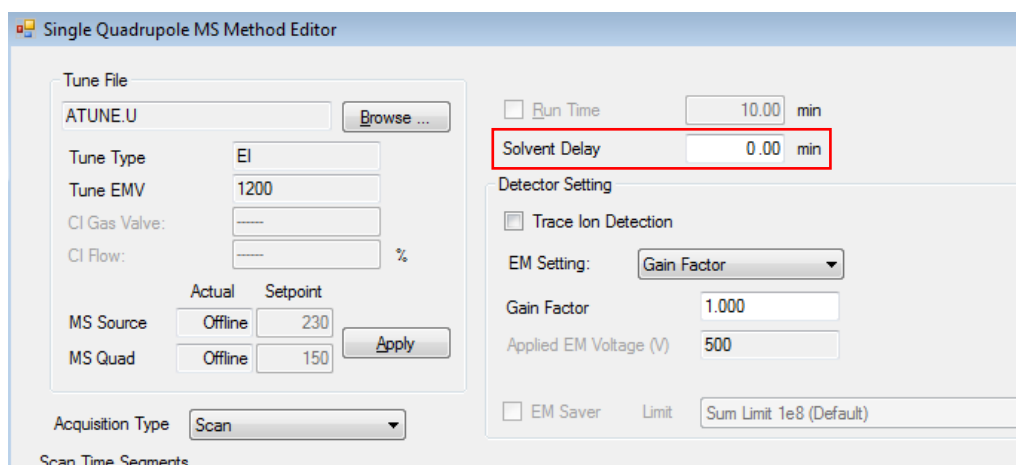
- When the files are overlaid, a maximum of two signal windows will be overlaid. If there is a 'SIM + Scan MS' method for instance, the two desired signals to be overlaid must be selected in each data file before the overlay process (File > Select Signals).

2. Recording inlet total flow on Agilent 7890 GC in MassHunter

- To configure MassHunter Data Acquisition, click on the signals section of the GC Edit Parameters window and select the inlet that is supplying the gas. Select the total flow signal:



- Ensure there is a zero-minute solvent delay set up in the MS Method Editor window (this ensures that data is collected at the time of injection (time = 0 min)):



- To view the total flow signal, follow the steps outlined in Section 1.2.

For all technical support queries, please contact Markes International.

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