Delta Tips

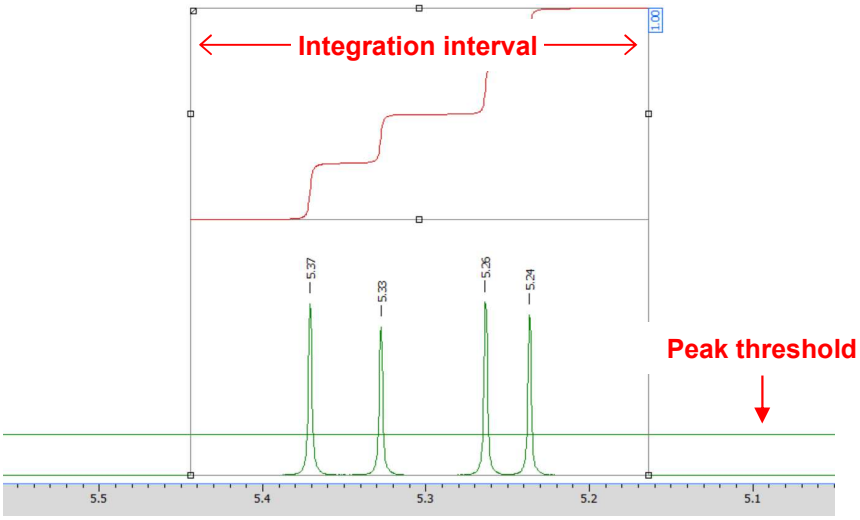
NMR data processing software

Delta NMR Software

NMDT_0075

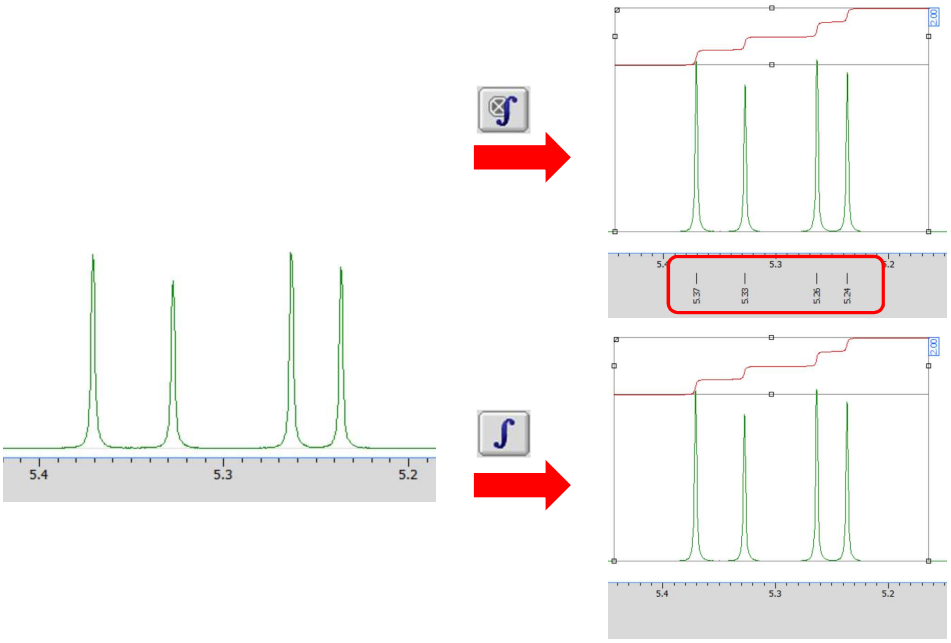
Automatic Integration: How to Detect Signal Region

In Delta software, automatic integration is performed by determining the peak position and signal region of a spectrum. The peak threshold is detected automatically and following the value of **Int Width** (Integral Width) parameter, the integration region of signal is set.



Automatic integration :

Click the **Auto Peak Pick and Integrate** button , or the **Auto Integrate** button to set the peak threshold and integral interval automatically. After you have clicked the **Auto Peak Pick and Integrate** button, the chemical shifts are shown on the ruler.



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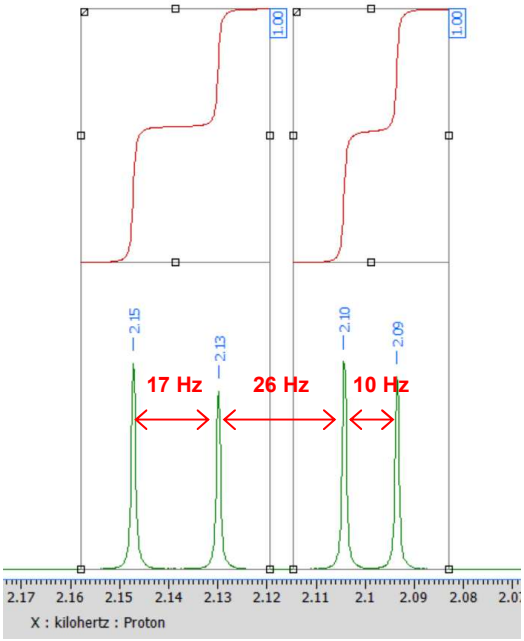
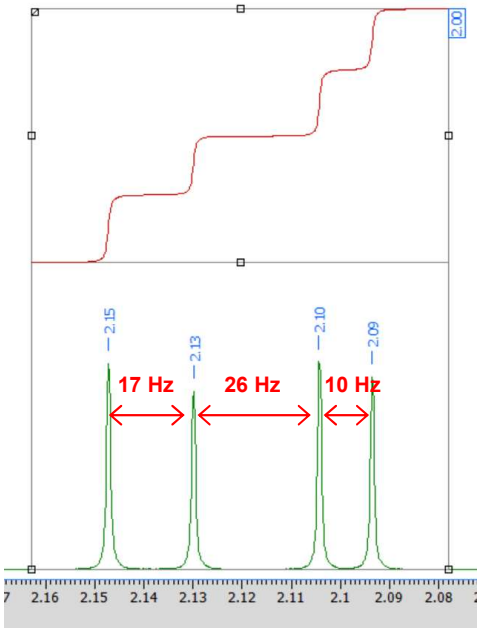
Setting of signal region :

Based on the **Int Width** value, the signal region is automatically set. The **Int Width** parameter is user-adjustable. If the interval of selected peaks is wider than the **Int Width** value, the peaks are integrated separately. On the other hand, if the interval of peaks is narrower, all the peaks are integrated as one multiplet.

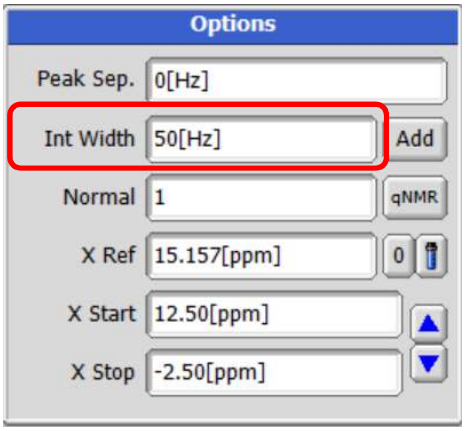


Int Width set to 20 Hz

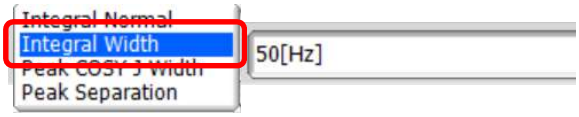


Int Width set to 30 Hz

★ The default value of **Int Width** is 50 Hz. It is possible to adjust the **Int Width** in the **Options** menu in the **1D Processor** window. If you need to set the **Int Width** value in the **Data Slate** window, select the **Integral Width** in the **Option** bar.



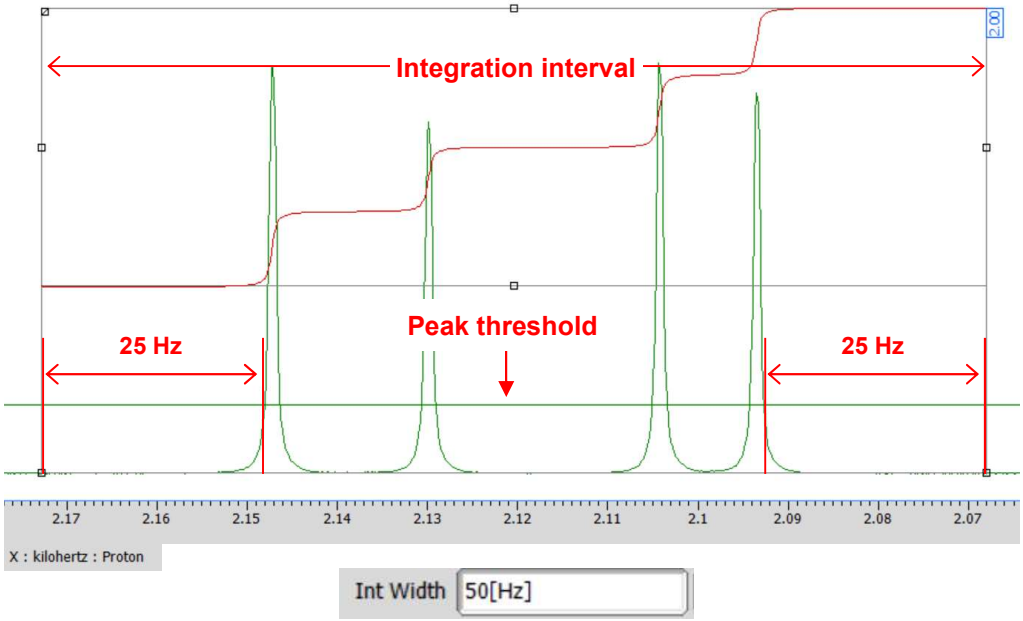
Options – 1D Processor window



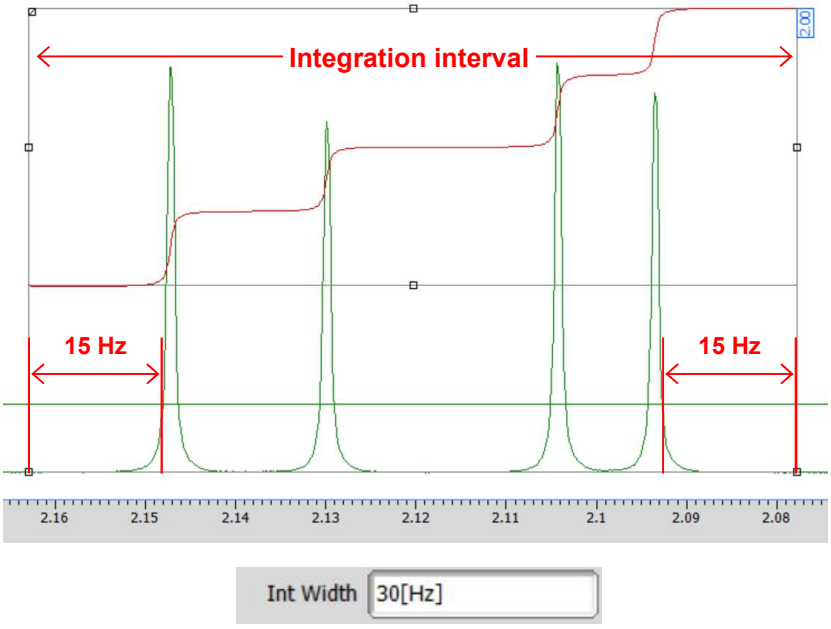
Integral Width – Option bar – Data Slate window

Setting of integration interval :

The end points of integration interval are automatically set at the positions separated by the half of **Int Width** value from the point at the intersection of the peak shoulder with the peak threshold level. See the figures below.



Int Width set to 50 Hz



Int Width set to 30 Hz