223-60672A
Nov. 2015

SHIMADZU

Shimadzu High Performance Liquid Chromatography

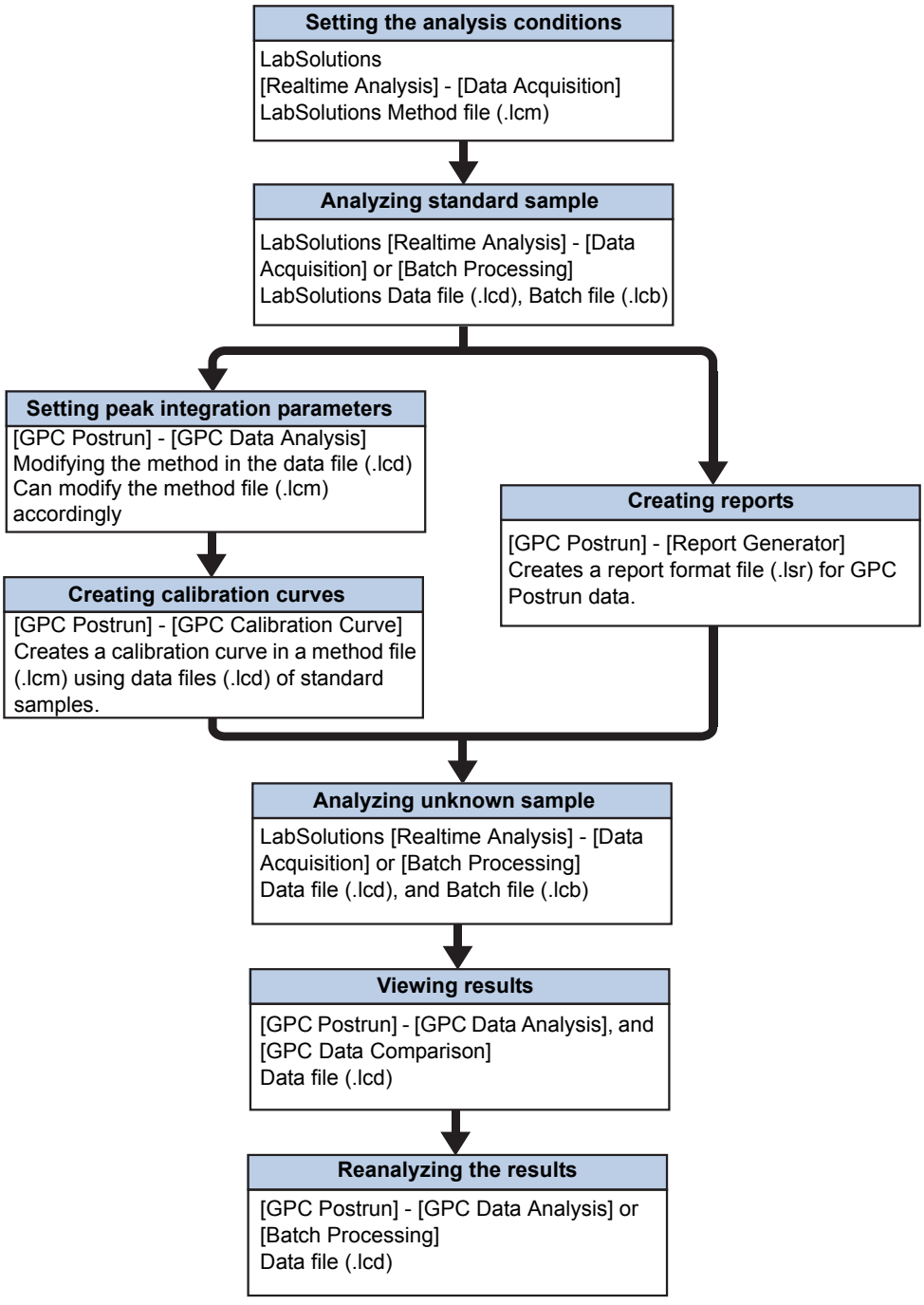
LabSolutions GPC

Quick Manual

Read this manual thoroughly before you use the product.
Keep this manual for future reference.

1 Flow of Analysis Operation

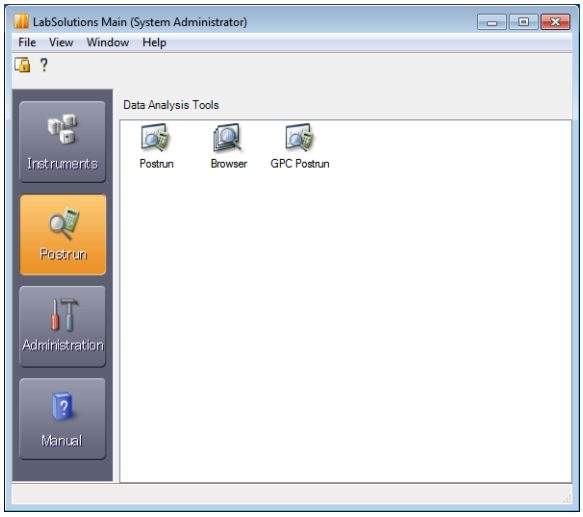
In this chapter, the operation flow of LabSolutions GPC is explained as shown in the following chart.
In LabSolutions GPC, adding to the parameters for LabSolutions, you set parameters for calibration curve, molecular weight calculation, etc. in a method file. You can create calibration curves in the [GPC Postrun] program, and once you have set all these parameters, you can perform GPC calculation, such as molecular weight calculation, while performing data acquisition by using the method file. This Quick Manual describes the procedure for creating a calibration curve, a process inherent to GPC. For other operations, refer to the "LabSolutions Operation Manual" or the "LabSolutions GPC Instruction Manual".



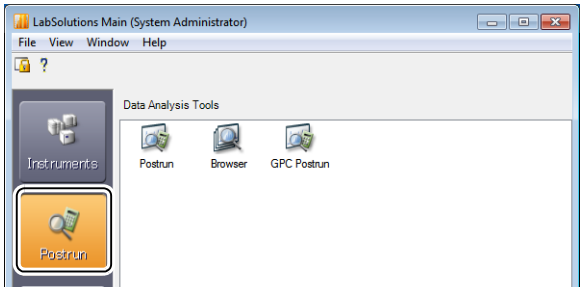
2 Creating Calibration Curve

■ Opening a File for Editing

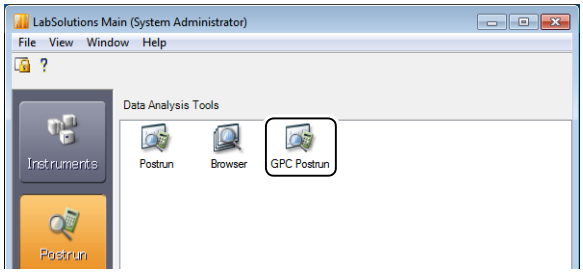
1 **Display the [LabSolutions Main] window.**



2 **Click**  **(Postrun).**



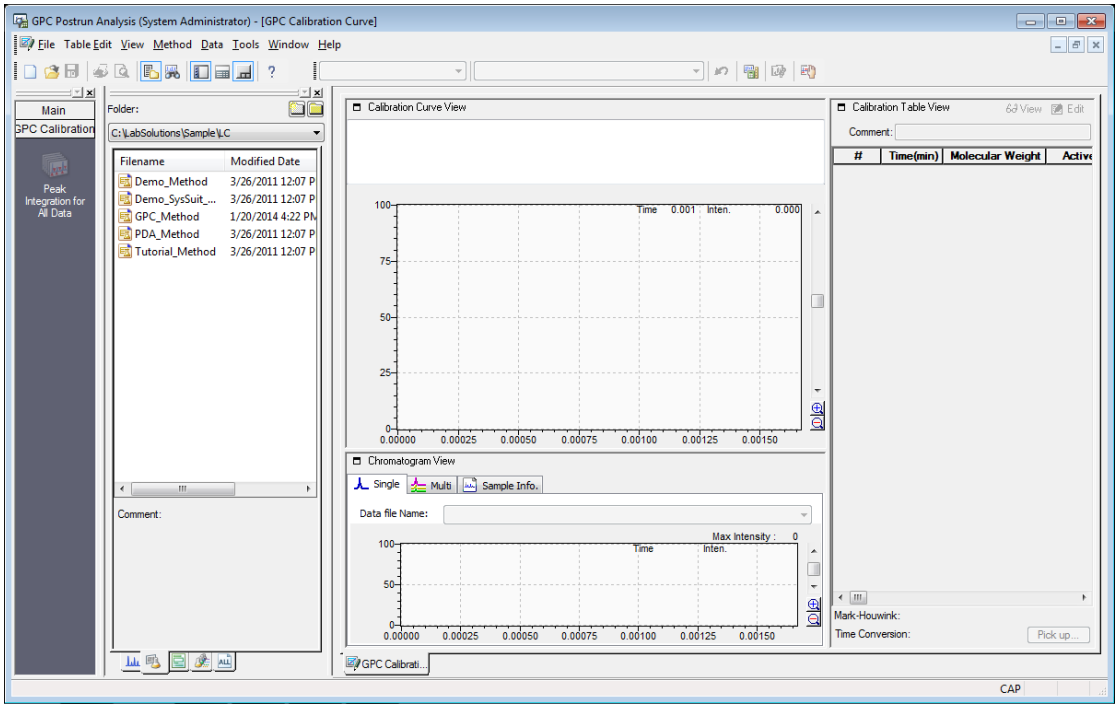
3 **Double-click**  **(GPC Postrun).**



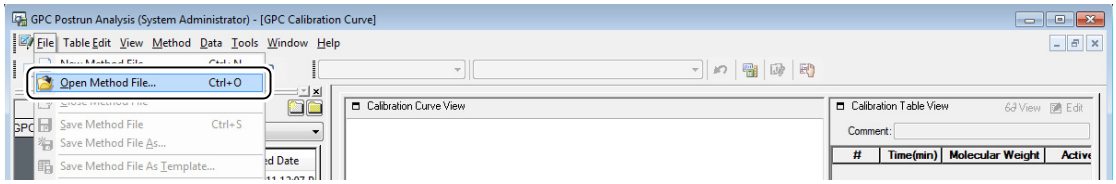
The [GPC Postrun] program will start.

4 Click GPC Calibration Curve (GPC Calibration Curve) from the [Main] assistant bar in the [GPC Postrun] program.

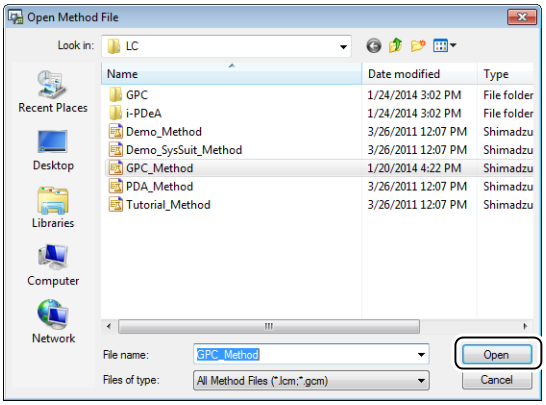
The [GPC Calibration Curve] window appears.



5 Click [Open Method File] from the [File] menu.



6 Select the method file and click [Open].

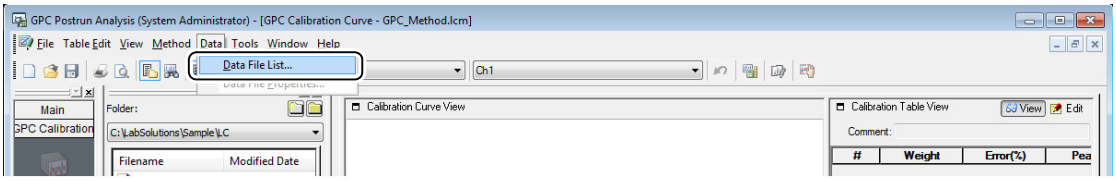


NOTE

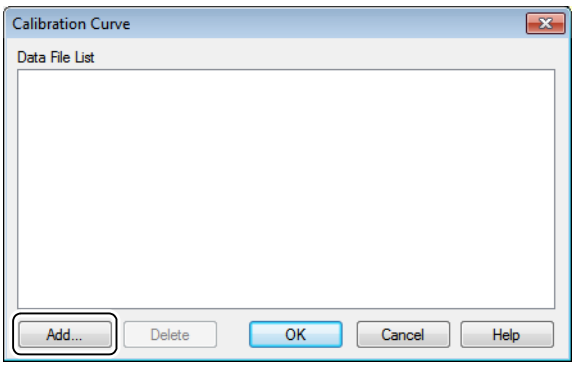
You can select either LabSolutions method files or those from older software versions.

■ Adding Data Files for Use in Creating a Calibration Curve

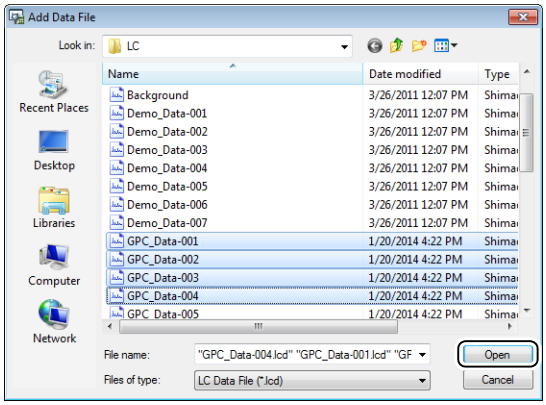
1 Click [Data File List] from the [Data] menu.



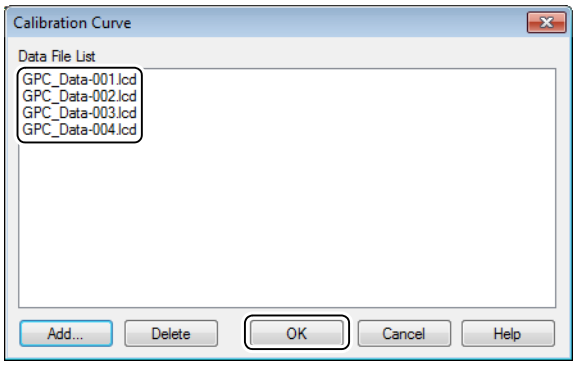
2 Click [Add].



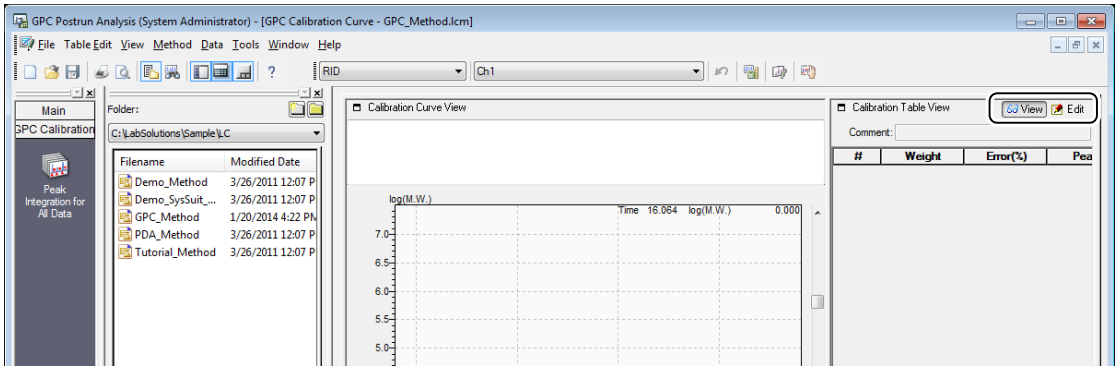
3 **Select the standard sample data you wish to use for creating calibration curve, and click [Open].**



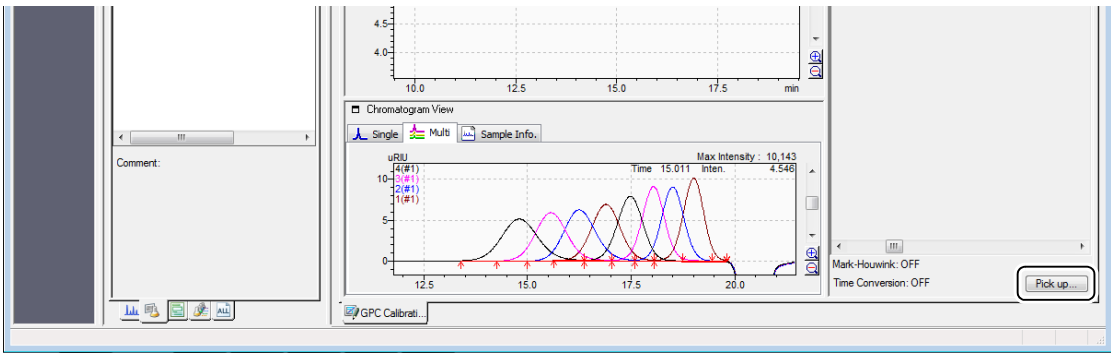
4 **Verify that the data file of the standard sample is displayed in the data file list, and click [OK].**



5 **Click [Edit] in the [Calibration Table View] screen.**

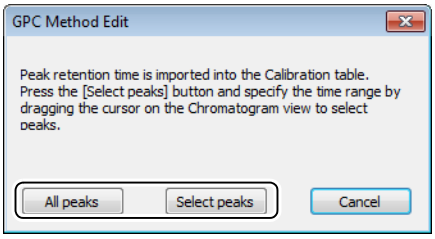


6 Click [Pick up] in the [Calibration Table View] screen.



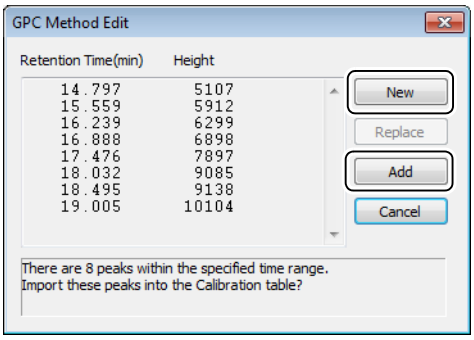
7 Click [All peaks] or [Select peaks].

Select [All peaks] when importing data of the whole retention time, and select [Select peaks] when importing data for a certain time range. When [Select peaks] is selected, use the mouse to specify the range on the chromatogram.

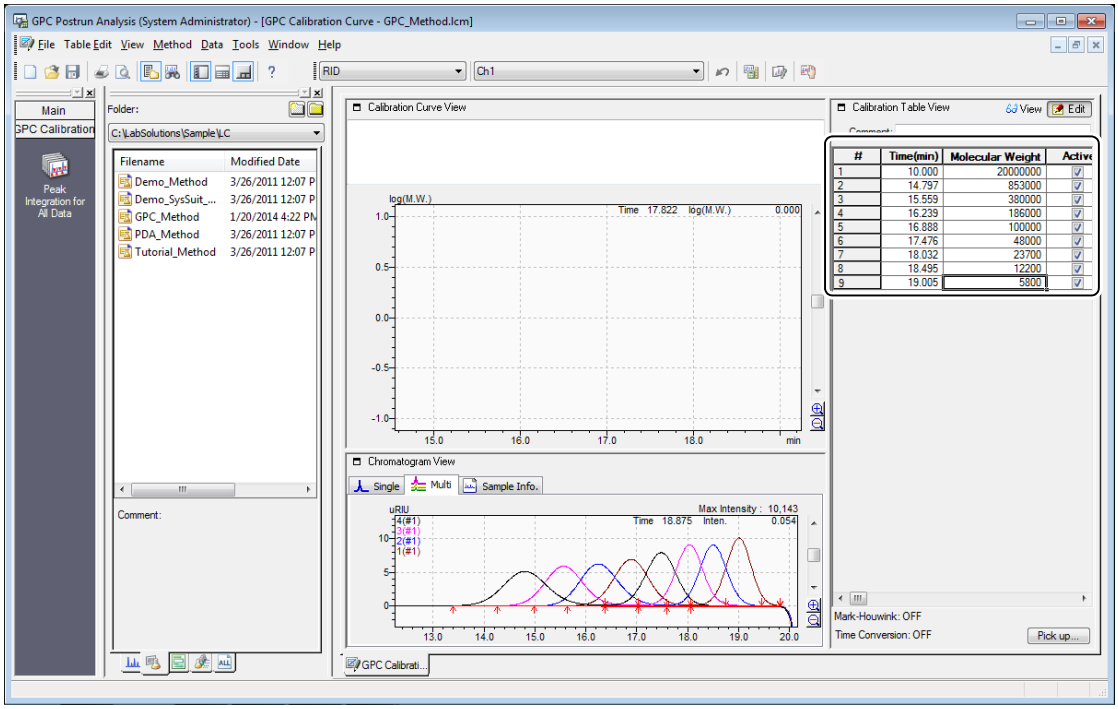


8 Click [New] or [Add].

Select [New] when importing peak data after deleting an existing calibration curve. Select [Add] when adding peak data to existing calibration points.

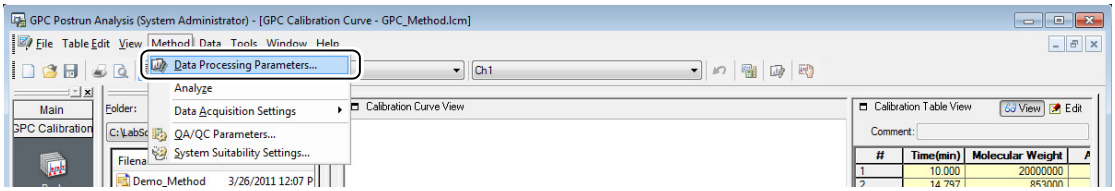


9 **Set the parameters not yet defined in the calibration curve table, such as molecular weight values.**

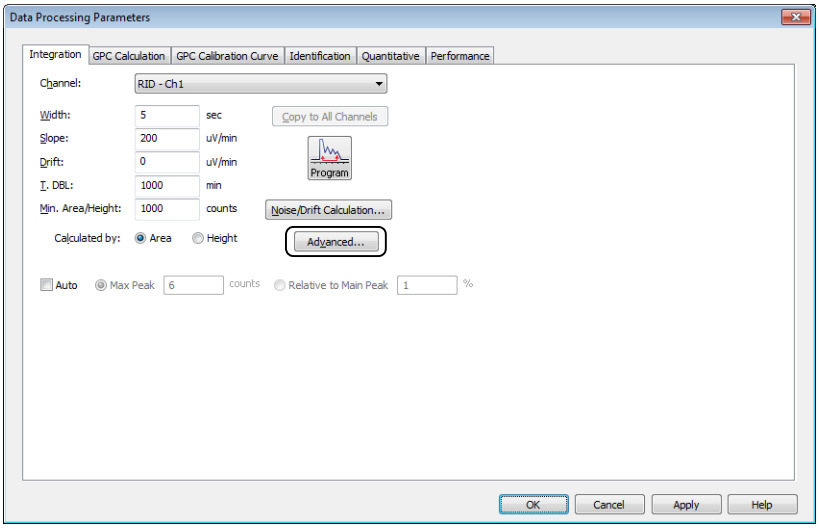


■ Setting Data Processing Parameters

1 **Select [Data Processing Parameters] from the [Method] menu.**

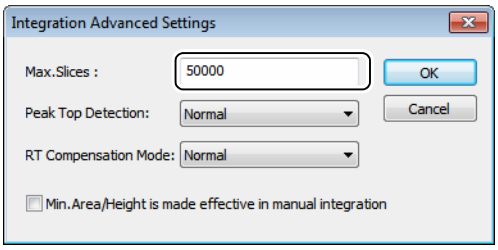


2 **Click [Advanced] in the [Integration] tab.**

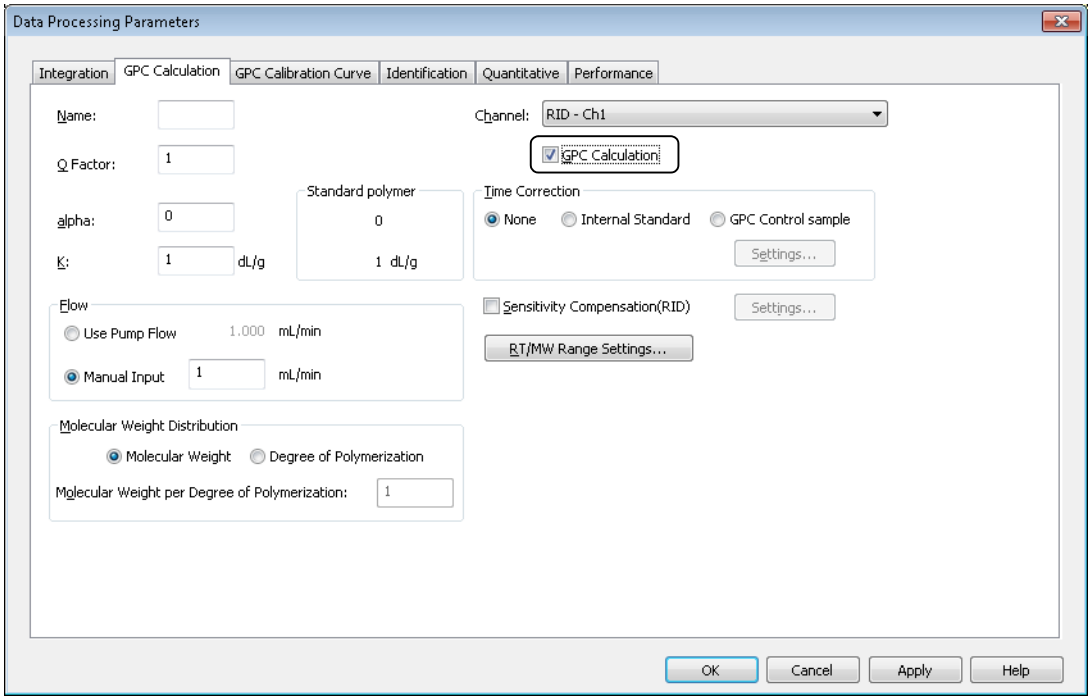


3 **Enter the number of slices in [Max.Slices].**

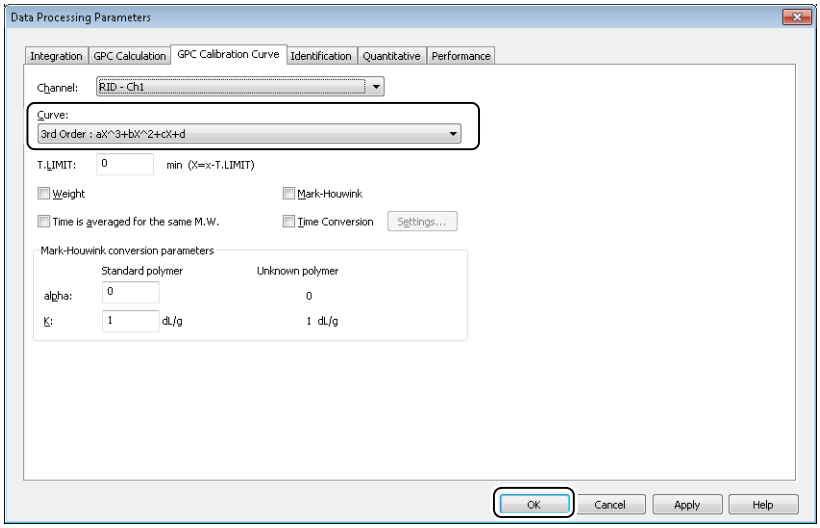
Set the maximum value: [50000].



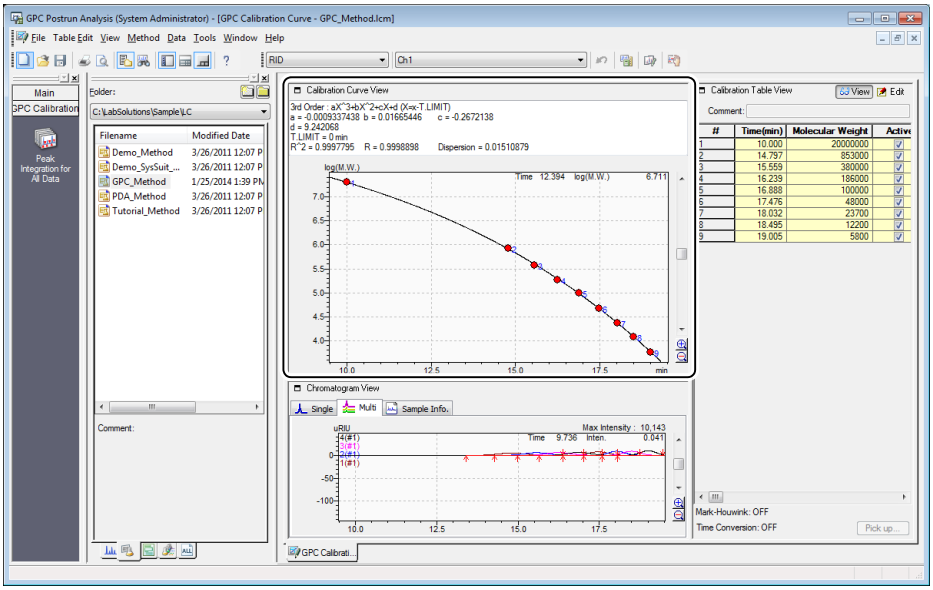
4 Check [GPC Calculation] in the [GPC Calculation] tab.



5 Select the [Curve] type in the [GPC Calibration Curve] tab, and click [OK].



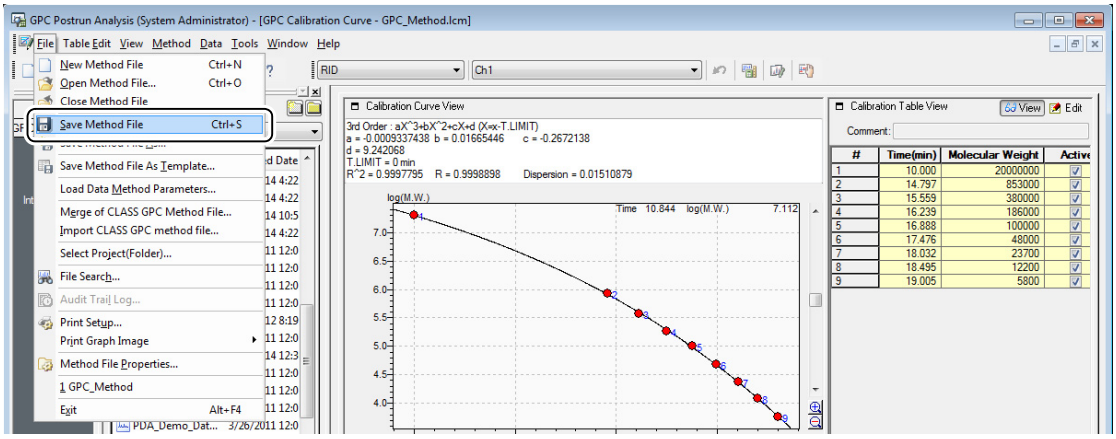
6 Verify the calibration curve created in the [Calibration Curve View] screen.



NOTE

To modify the calibration curve, configure the settings again in the [Data Processing Parameters] - [GPC Calibration Curve] tab.

7 Click [Save Method File] from the [File] menu.



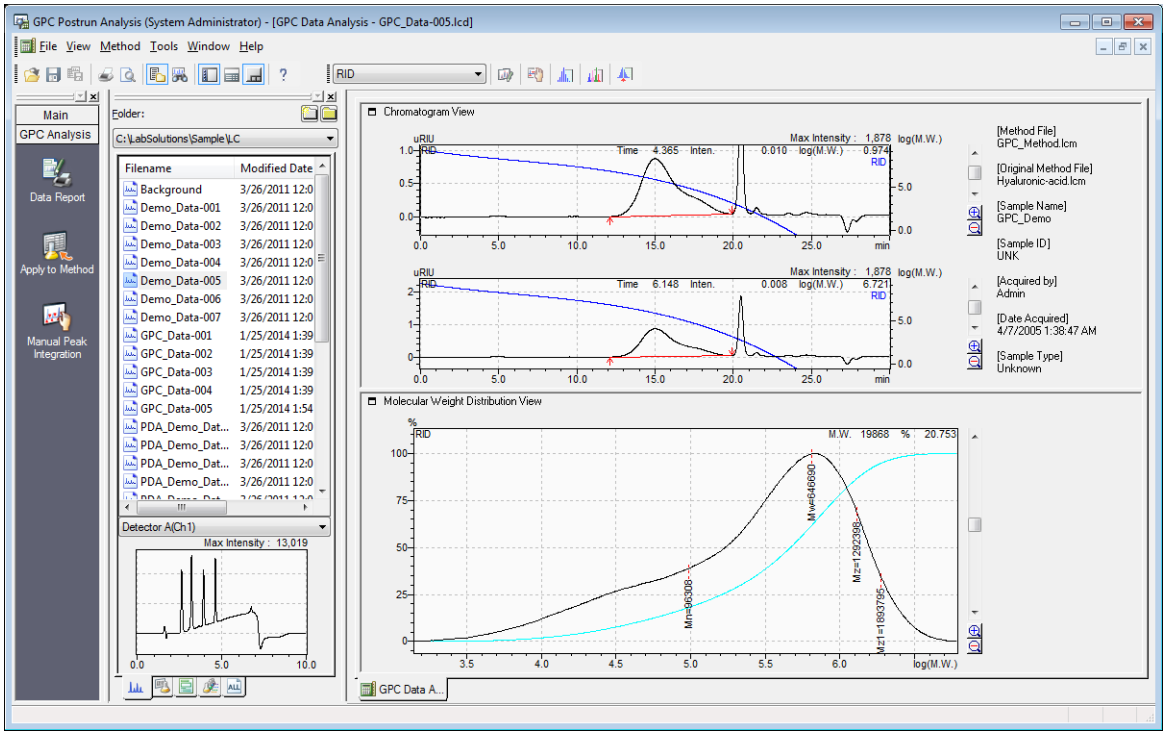
The calibration curve is saved in the method file.

A method file with the calibration curve configured has been created. By using this method file to analyze an unknown sample, GPC calculations can be performed. (This can also be carried out online in conjunction with data acquisition.)

3 Checking the Results

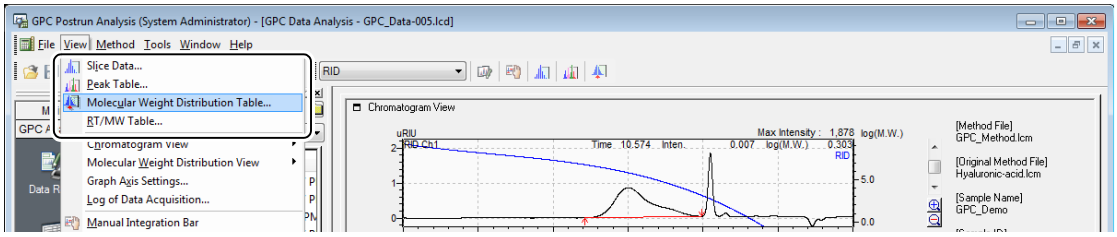
The GPC calculation results can be checked by opening the data file from the [GPC Data Analysis] window or the [GPC Data Comparison] window.

■ [GPC Data Analysis] window

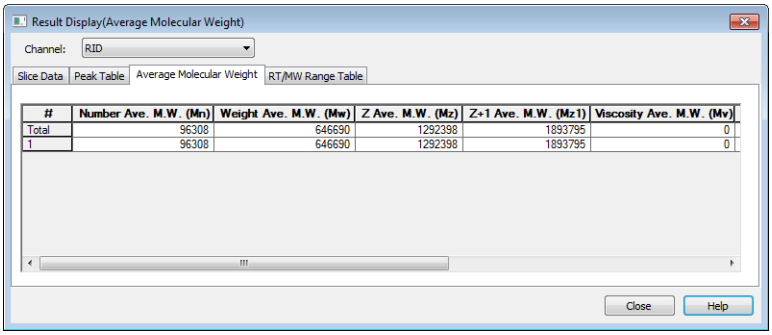


To display the calculation results, select the appropriate item from the [View] menu.

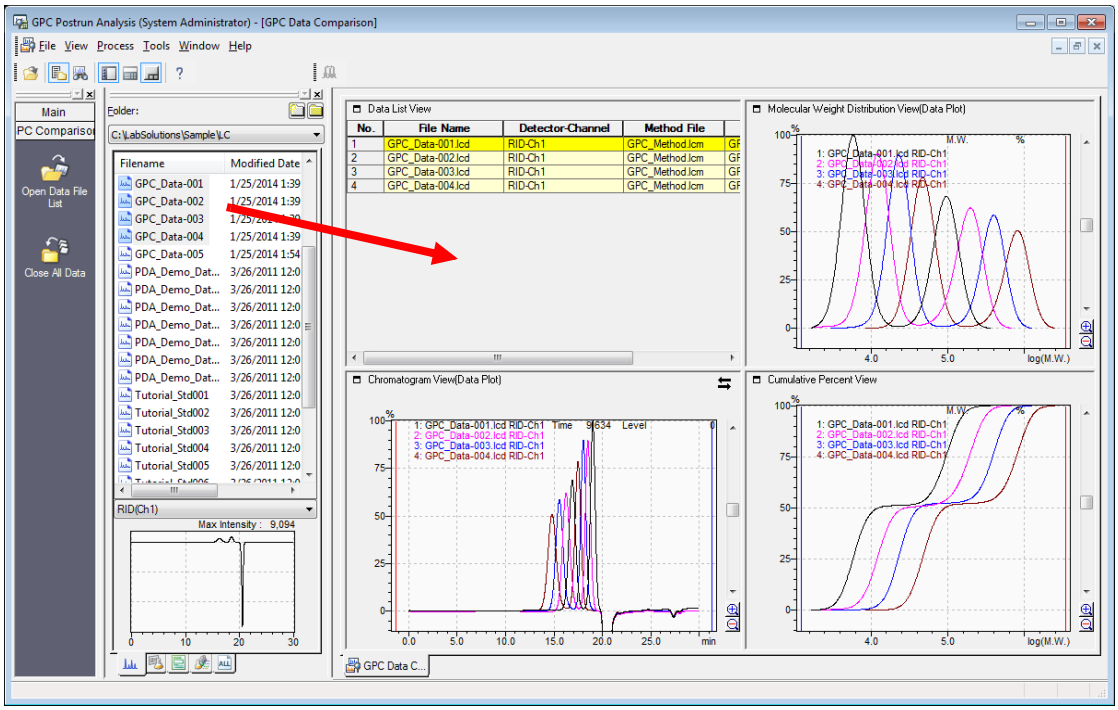
1 Click the appropriate item from the [View] menu.



2 Click the appropriate tab in the [Result Display] screen to check the contents.



■ [GPC Data Comparison] window



Multiple data results can be checked in this window.