WHEN & WHERE
WILL MY TARGET COMPOUND(S) ELUTE?

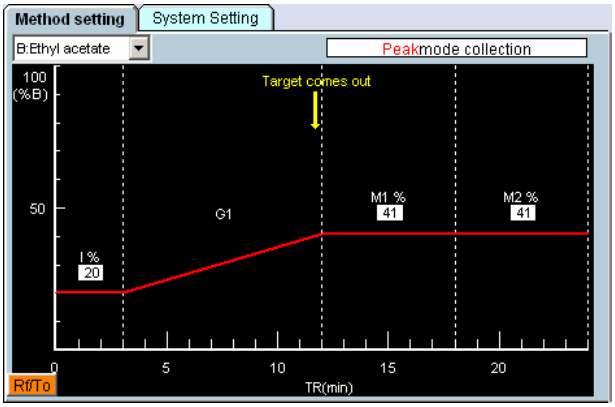
Yamazen software will show where and when the target compound will elute. Eluting position of the target compound indicated by a yellow arrow will appear in the Gradient graphic when the Gradient method has been developed. The arrow will move as the Gradient changes. The following examples are self-explanatory.

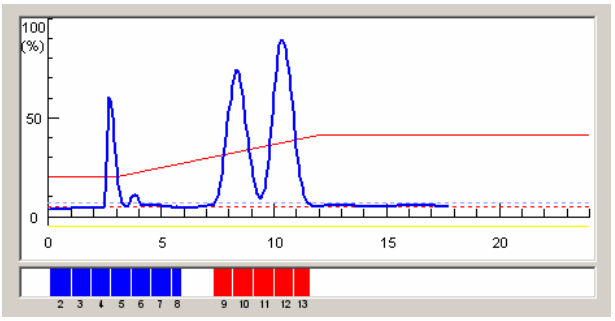
Note:

1) Yamazen recommends the use of the Inject column as the sample-loading column together with the main separation column such as Hi-Flash Columns and/or Universal columns, etc. This software showing the elution position was developed for when using the M-size inject columns and a main separation column together. The S-size Inject column, which is shorter in length than the M-size Inject column, is used to run the sample. Therefore the target compound will elute a little faster than the arrow indicates.

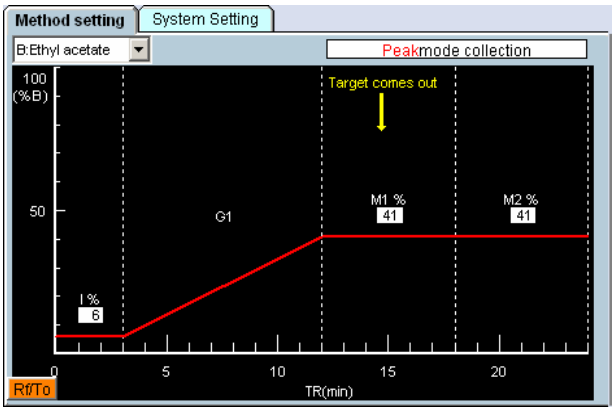
2) We run the same sample for each different Gradient method with a L-size (30g) Hi-Flash column filled with Silica Gel as the main separation column and a S-size Inject column as the sample-loading column. The sample contains methyl p-hydroxybenzoate and butyl p-hydroxybenzoate. TLC method and result: Hexane/Ethyl acetate at 70/30, Rf 0.35 for methyl p-hydroxybenzoate and Rf 0.45 for butyl p-hydroxybenzoate.

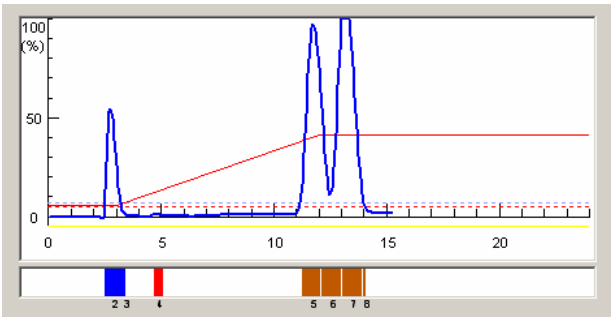
Yamazen's Automatic Method Set-up has developed this Gradient method. The position indicated by the arrow is 12 minutes or 4 CV. The %B in the stage "I" (Initial) is 20% and 41% at the end of Gradient.



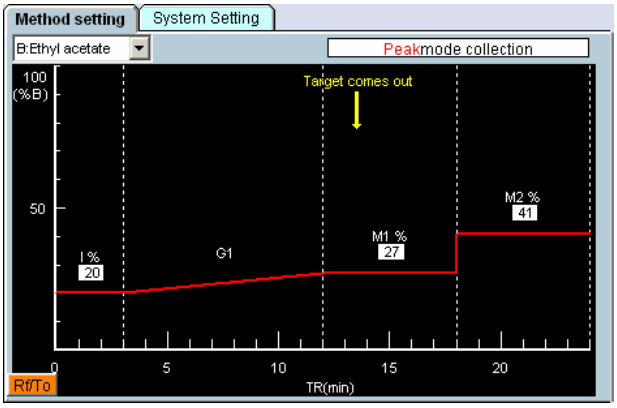


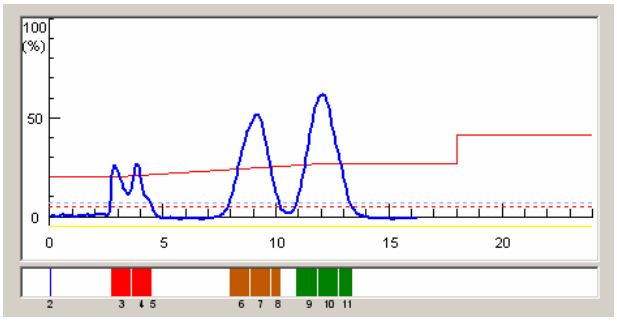
The %B in the stage "I" (Initial) was decreased from 20% to 6%. Then, the arrow will move to the right, which means the target will elute a little later.



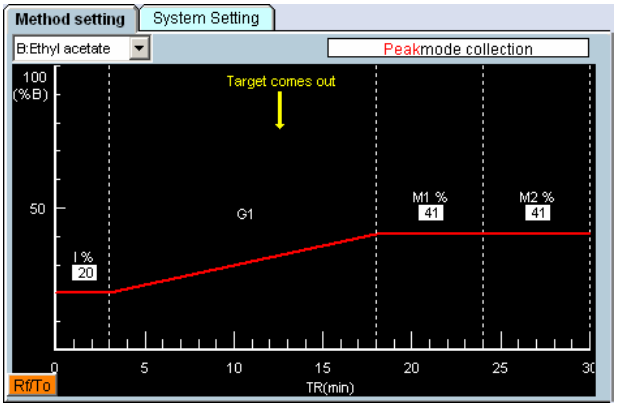


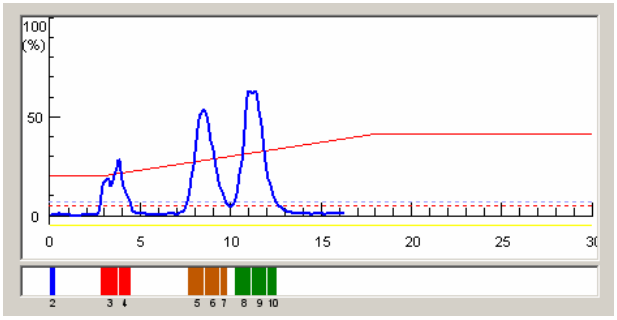
The %B in the stage “I” remains 20%, and the %B at the end of the Gradient has been decreased from 41% to 27%. Then, the arrow will move again.



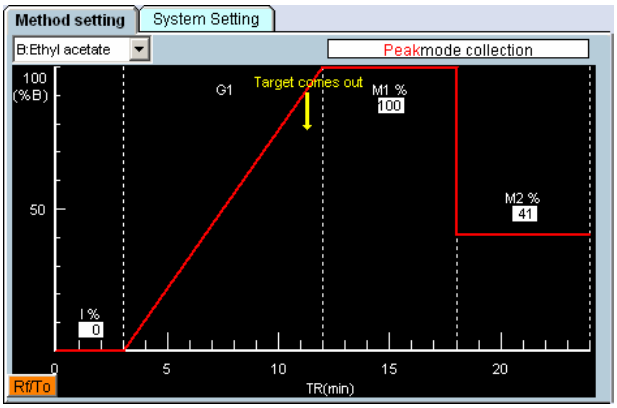


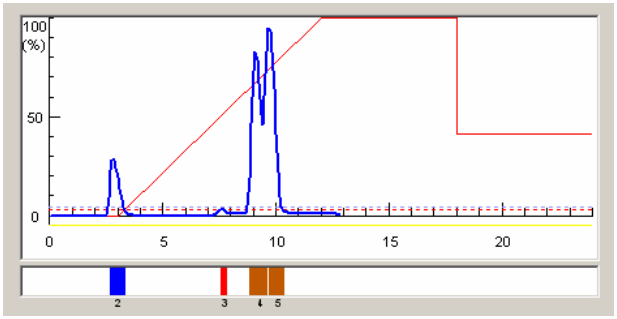
The %B in the stage “I” and at the end of Gradient stays 20% and 41% respectively. The run time in the stage “G1” will be extended from 9 minutes (3 CV) to 15 minutes (5 CV). Observe as the arrow moves.





This is the 0-to-100% Gradient. The target will come out too soon with poor resolution.





This function will be a great help to develop the best Gradient method for the samples.