Using Conceptual Design

If you are licensed to use Aspen Split, you can call this component directly from Aspen Plus to perform azeotrope searches and to construct ternary maps. This state-of-the-art feature for the synthesis and conceptual design of distillation processes enables the user to:

- Locate all the azeotropes (homogeneous and heterogeneous) present in any multicomponent mixture
- Automatically compute distillation boundaries and residue curve maps for ternary mixtures
- Compute multiple liquid phase envelopes (liquid-liquid and vapor-liquid-liquid) for ternary mixtures

The Conceptual Design component has been integrated with Aspen Plus so that these powerful analyses can be performed directly in the flowsheeting environment. The results can then be used to:

- Access separation feasibility in azeotropic mixtures
- Synthesize feasible separation sequences for achieving a desired separation
- Develop strategies for retrofit of existing separation sequences
- Identify potential operating problems for distillation columns and strategies for correcting them

To perform these analyses, click the Tools menu, then point to Conceptual Design, then select either Azeotrope Search or Ternary Maps. You must first specify components (at least 2 for azeotropes, 3 for ternary maps) and a property method in Aspen Plus to enable the analysis features.

Press the F1 key on any part of the Azeotrope Analysis or Ternary Maps dialog box for detailed usage instructions.

See Also
Azeotrope Search Overview
Ternary Map Overview