

Training Course Data Sheet	
<p><b>Intermediate</b></p> <p><b>Aspen PIMS™</b></p>	Course Number: <b>SP810</b>
	Duration: <b>5 days</b>
	CEUs Awarded: <b>3.5</b>
	Level: <b>Intermediate</b>

<p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>To provide an intensive problem-solving workshop designed for the experienced Aspen PIMS user. Detailed emphasis is placed on reviewing Aspen PIMS modeling techniques and troubleshooting errors and warnings in models</li> </ul> <p><b>Who Should Attend</b></p> <ul style="list-style-type: none"> <li>Participants will typically know how to use Aspen PIMS but would like a more detailed understanding of the inner workings of the Aspen PIMS system and would like to review examples of how to solve more difficult problems</li> </ul>	<p><b>Approach</b></p> <ul style="list-style-type: none"> <li>This course, updated for software version 2006, is oriented toward the practical aspects of refinery operations and planning</li> <li>Challenging class problems have been designed to illustrate advanced modeling techniques which are used to solve difficult problems. Students learn how Aspen PIMS table entries impact the model at the matrix level</li> <li>This course also covers approaches to debugging and troubleshooting an Aspen PIMS model. One of the workshop sessions leads the student through analytical steps required to debug a model</li> </ul> <p><b>Prerequisites</b></p> <ul style="list-style-type: none"> <li>Must have attended the 'Essential Aspen Aspen PIMS' training course</li> <li>Attendee should have a good understanding of refinery operations and of the basics needed to operate Aspen PIMS</li> </ul>
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## Intermediate Aspen PIMS™ Course Agenda

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- **Distributive Recursion:** Understanding rules for 999 resolution, error distribution coefficients and error vectors built by Aspen PIMS; non-convergence problems and solutions
  - **Matrix Structure:** A study of the Aspen PIMS matrix to understand rules for column name, row name and coefficient construction
  - **Crude Architecture:** Demonstration and explanation of how Aspen PIMS automatically builds submodels for atmospheric and vacuum distillation and explanation of their structure
  - **Deferred and Swing Cuts:** Explains how to model deferred and swing cuts on the crude unit models and in other models
  - **Complex LP Structure:** Explains several techniques for implementing additional and more sophisticated LP structures; use of tables ROWS, BOUNDS and PROCLIM along with E, L and G rows; create specification rows in submodel tables, etc.
  - **P-Rows:** use of P-Rows for additional report writing flexibility
  - **Class Problems:** Provide the student with hands-on experience in solving problems such as using control rows to impose a variety of constraints; adding complex process units and the necessary recursion structure; using P-Rows for report writing; adding swing cuts; resolving model errors and infeasibilities; analyzing good and bad situations
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*Aspen Technology, Inc. awards Continuing Education Units (CEUs) for training and development activities conducted by our organization in accordance with the definition established by the International Association of Continuing Education & Training (IACET). One CEU is granted for every 10 hours of class participation.*