ACFDA, North American Agency of CHAM Ltd.

PHOENICS 2009 CFD Software Training Course Program

Venue: Room 232, 200 College Street, Toronto, Ontario, Canada

Day 1:

Morning Session 10:00-13:00: Starting with PHOENICS-VR

10:00-10:20 ACFDA/CHAM Services and Products
10:20-11:00 Introduction to PHOENICS 2009 (Lecture 1.1)
11:00-11:15 **Coffee Break**
11:15-12:00 Introduction to VR Editor and Viewer (Lecture 1.2)
12:00-13:00 Workshops: TR324, 3 Simple Examples
13:00-14:00 **Lunch**

Afternoon Session 14:00-17:00: PHOENICS Basics

14:00-14:45 Introduction to PIL and Mathematical Basis of PHOENICS (Lectures 1.3, 2.1)
14:45-15:30 Boundary Conditions (Lecture 2.2), Object Types and Attributes (TR326)
15:30-15:45 **Coffee Break**
15:45-16:30 Solution Techniques, Convergence Control (Lectures 2.3 and 2.4)
16:30-17:00 Turbulence Models (Lecture 3.1)

Day 2:

Morning Session 10:00-13:00: Advanced Physical Models and Complex Geometry

10:00-10:30 Adding Extra Variables: Tutorial 11 (Introducing Contaminants)
10:30-11:00 Complex Geometry: Shapemaker, CAD-to-PHOENICS (STL, DXF), PARSOL
11:00-11:15 **Coffee Break**
11:15-12:30 Modeling Two-phase Flows (Lecture 10, Tutorial)
12:30-13:00 Complex Geometry: Introduction to Body-Fitted Coordinates (Lecture 4.1)
13:00-14:00 **Lunch**

Afternoon Session 14:00-17:00: PHOENICS Customization (In-Form, GROUND, PLANT)

14:00-14:45 Adding Customized Models via Formulas: In-Form Tutorial
14:45-15:30 PHOENICS Programmability: GROUND Structure (Lecture 5.1)
15:30-15:45 **Coffee Break**
15:45-16:30 Programming in GROUND (Tutorial)
16:30-17:00 Tutorial on PLANT

Day 3:

Morning Session 10:00-13:00: Work on Client Application

10:00-11:30 Problem Formulation and CFD Model Selection (Input/Output, CFD Variables, Models, Computational Domain and CFD Objects)
11:30-11:45 **Coffee Break**
11:45-13:00 Providing Boundary Conditions and Sources
13:00-14:00 **Lunch**

Afternoon Session 14:00-17:00: Work on Client Application

14:00-15:00 Solving Equations and Achieving Convergence
15:00-15:30 Post-processing and Analyzing Results
15:30-15:45 **Coffee Break**
15:45-17:00 General Questions and Discussion