Analysis of a World Solar Challenge Racing Car

**SC/Tetra for Effective Aerodynamic Analysis**

SC/Tetra is three dimensional thermal fluid analysis software developed by Software Cradle Co., Ltd. that is used by customers all over the world. SC/Tetra is renowned for being a highly practical and accurate analysis tool.

SC/Tetra excels at accurate representation of geometry. Engineers can use the tool to conduct automotive aerodynamic analysis, or evaluate the performance of rotating machinery such as fans and turbines.

2013 Tokai Challenger places the second at the World Solar Challenge

**Analysis Process for the Tokai Challenger**

- CAD data
- Automatic mesh generation
- Condition setting wizard setup
- Calculation
- Display results

Pressure and flow of vehicle body surface
Pressure and airflow around the lower part of the vehicle body
Airflow around the vehicle body surface (using oil flow view)
Distribution of turbulence energy

**SC/Tetra helps engineers to visualize the invisible airflow and identify the pressure distribution**

**Analysis of the Tokai Challenger (Pressure and Airflow Around the Lower Part of the Vehicle)**

- **TYPE A**
  - Converted the previous model into a four wheeler

- **TYPE B (STD)**
  - Changed the size and position of the cockpit

- **TYPE B (BEND)**
  - Modified the geometry of the wheel fairings