Module 1: Introduction

- **Objective**
  - To introduce the Eclipse platform and PTP

- **Contents**
  - What is Eclipse?
  - What is PTP?
What is Eclipse?

- A vendor-neutral open-source workbench for multi-language development
- A extensible platform for tool integration
- Plug-in based framework to create, integrate and utilize software tools
Eclipse Platform

- Core frameworks and services with which all plug-in extensions are created
- Represents the common facilities required by most tool builders:
  - Workbench user interface
  - Project model for resource management
  - Portable user interface libraries (SWT and JFace)
  - Automatic resource delta management for incremental compilers and builders
  - Language-independent debug infrastructure
  - Distributed multi-user versioned resource management (CVS supported in base install)
  - Dynamic update/install service
Plug-ins

- Java Development Tools (JDT)
- Plug-in Development Environment (PDE)
- C/C++ Development Tools (CDT)
- Parallel Tools Platform (PTP)
- Fortran Development Tools (Photran)
- Test and Performance Tools Platform (TPTP)
- Business Intelligence and Reporting Tools (BIRT)
- Web Tools Platform (WTP)
- Data Tools Platform (DTP)
- Device Software Development Platform (DSDP)
- Many more...
Eclipse Parallel Tools Platform (PTP)

Coding & Analysis

Launching & Monitoring

Performance Tuning

Debugging

Module 1
Parallel Tools Platform (PTP)

- The Parallel Tools Platform aims to provide a highly integrated environment specifically designed for parallel application development
- Features include:
  - An integrated development environment (IDE) that supports a wide range of parallel architectures and runtime systems
  - A scalable parallel debugger
  - Parallel programming tools (MPI, OpenMP, UPC, etc.)
  - Support for the integration of parallel tools
  - An environment that simplifies the end-user interaction with parallel systems
- http://www.eclipse.org/ptp
PTP Features Demo...

- Creating a project from existing source code – importing into Eclipse and PTP
- Content assist, searching, include browser
- Building the project
- Launching an MPI program
- Debugging an MPI program