

# Module 1: Introduction

- ★ Objective

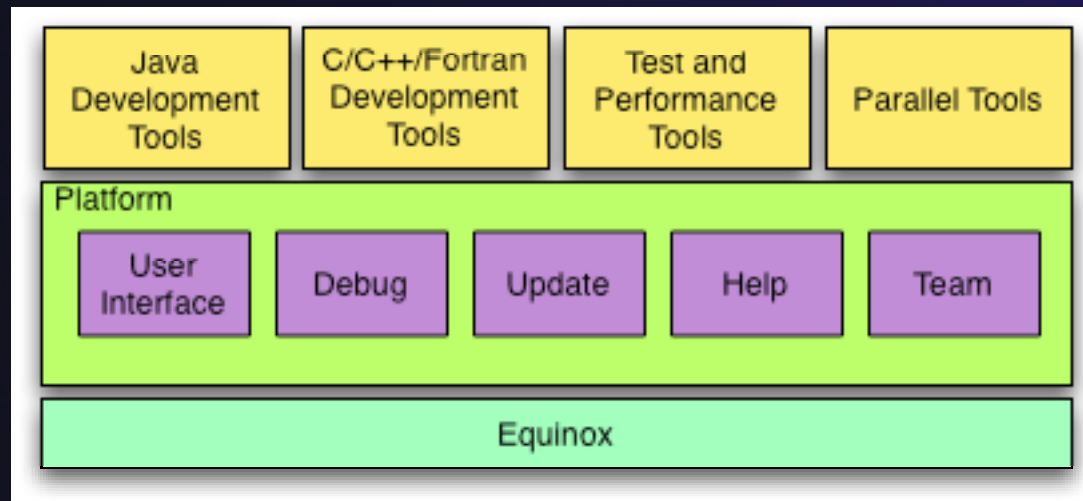
- ★ To introduce the Eclipse platform and PTP

- ★ 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

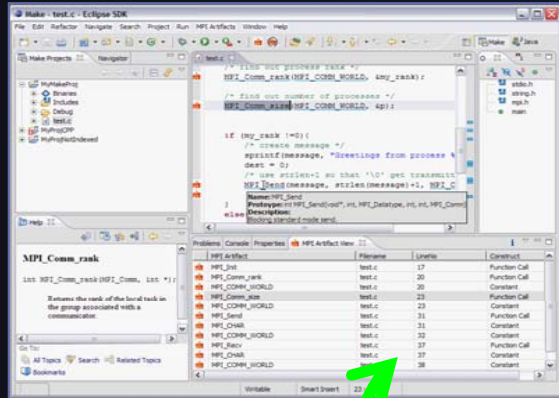
- ★ Core frameworks and services with which all plug-in extensions are created
- ★ Represents the common facilities required by most tool builders:
  - ★ Workbench user interface
  - ★ Project model for resource management
  - ★ Portable user interface libraries (SWT and JFace)
  - ★ Automatic resource 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

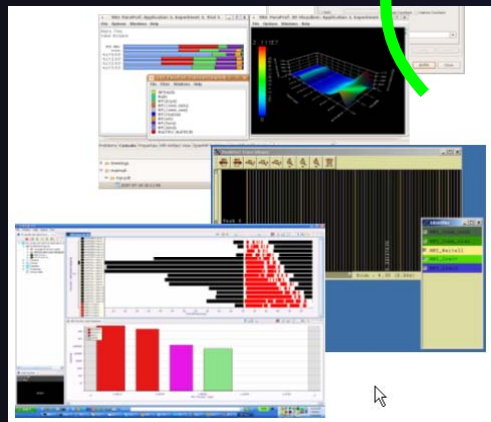
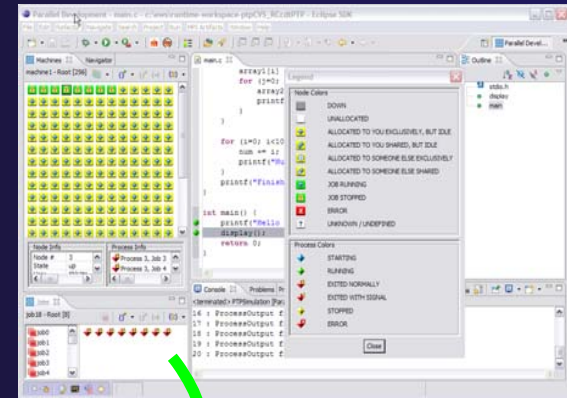
- ★ Java Development Tools (JDT)
- ★ Plug-in Development Environment (PDE)
- ★ C/C++ Development Tools (CDT)
- ★ Parallel Tools Platform (PTP)
- ★ Fortran Development Tools (Photran)
- ★ Test and Performance Tools Platform (TPTP)
- ★ Business Intelligence and Reporting Tools (BIRT)
- ★ Web Tools Platform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

# Eclipse Parallel Tools Platform (PTP)

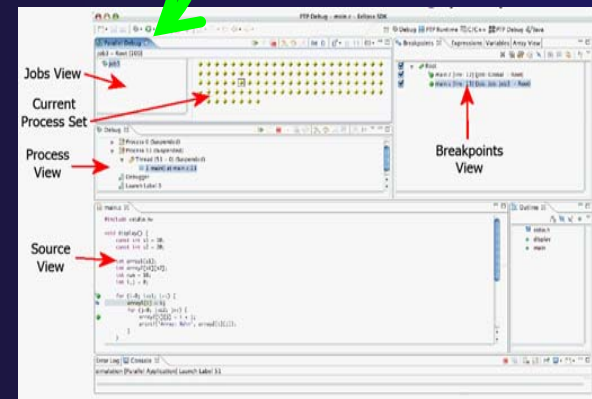
Coding & Analysis



Launching & Monitoring



Performance Tuning

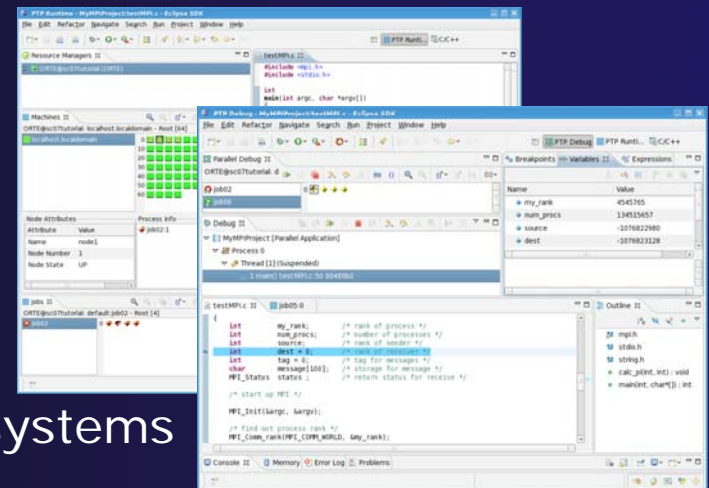


Debugging



# 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