New Features (not guaranteed!)

- Runtime
- Debugging
- Remote services
- Scalable Tools Communication Infrastructure (STCI)
New resource manager support
Targeted systems

- OpenRTE (OpenMPI runtime)
- PE/LoadLeveler
- MOAB/PBS (ORNL)
- Blue Gene
- Cell Cluster (RoadRunner)
Other new runtime features

- Improved model to support broader range of systems
- Model and UI scalability enhancements
- New icons showing resource manager, queue and machine state
- Single console view of output from all processes
Debugging

• Uses new Eclipse flexible debug hierarchy
• Scalability improvements in UI
• More robust error handling
• Will transition to Scalable Tools Communication Infrastructure (STCI) when it becomes available
• New UI features
  – Support for large numbers of processes/threads
  – Array slice view
Debug targets

- PERCS
- Parallel hybrid debugging on Cell (RoadRunner)
- Blue Gene
- Cray (ORNL)
Remote services

Development Environment

Build Environment

Build Service

Index Service

File Service

Execution Environment

Launch Service

Debug Service

Run

Debug

Edit/Debug

Content Assist/Call Hierarchy

Search/Index/Navigation

Build
Remote services (cont...)

- Joint project between C/C++ Development Tools (CDT) project and PTP
- PTP 2.0 will be remote enabled for launch, monitoring, debugging
- Adding support to CDT for:
  - Remote file system (projects on remote machines)
  - Remote indexing
  - Remote build services (standard and managed)
  - Remote launch/debug
- Aiming for CDT 5.0 (July 2008)
STCI (http://stci.wikidot.com)

- Open source effort to create a scalable infrastructure for tools
- Participants include IBM, ORNL, ANL, Krell, RENCI, UO, UWisc, UTK
- Three working groups established to complete design by November
- Meetings
  - August 2007 (IBM)
  - October 2007 (ORNL)
  - November 2007 (Reno)
STCI Architecture