



parallel tools platform

<http://eclipse.org/ptp>

PTP User's Meeting

January 29, 2014

Parallel Debugging

PTP support for Debugging MPICH Applications

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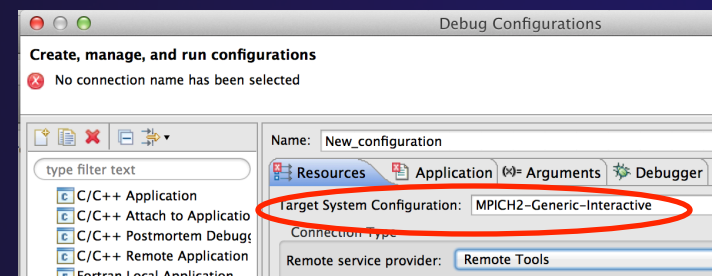
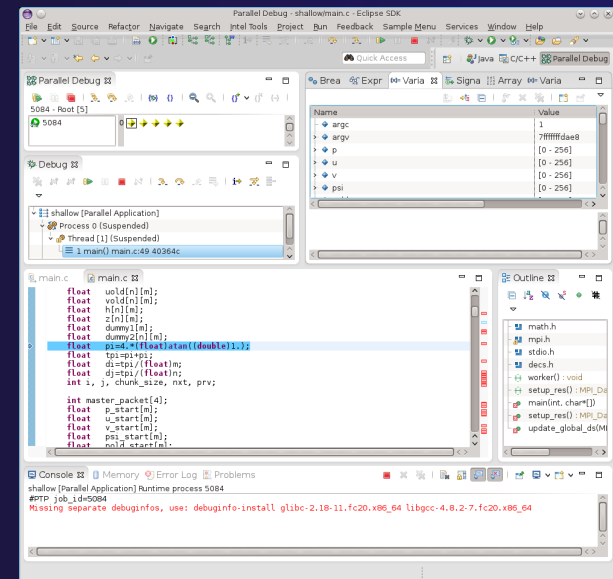
[drwootton@hvc.rr.com](mailto:drwootton@hvc.rr.com)

These slides available at:

[http://wiki.eclipse.org/PTP/PTP\\_User\\_Meetings](http://wiki.eclipse.org/PTP/PTP_User_Meetings)

# Introduction

- ✦ Added support for debugging MPICH applications
  - ✦ PTP Debugger previously only supported OpenMPI, IBMPE,
- ✦ Luna release only
  - ✦ Available in PTP 8.0 June 2014
- ✦ Initially only “MPICH2 Generic Interactive” TSC
- ✦ Easy to add others



# Dependencies

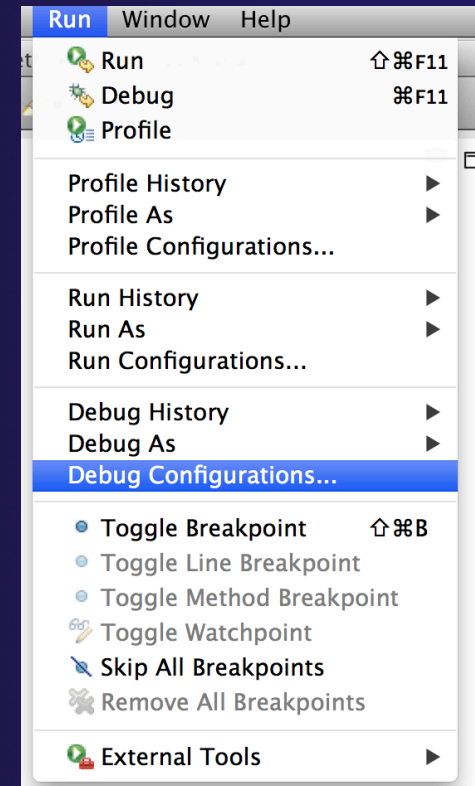
Required for PTP parallel debugger:

## ★ Login Node:

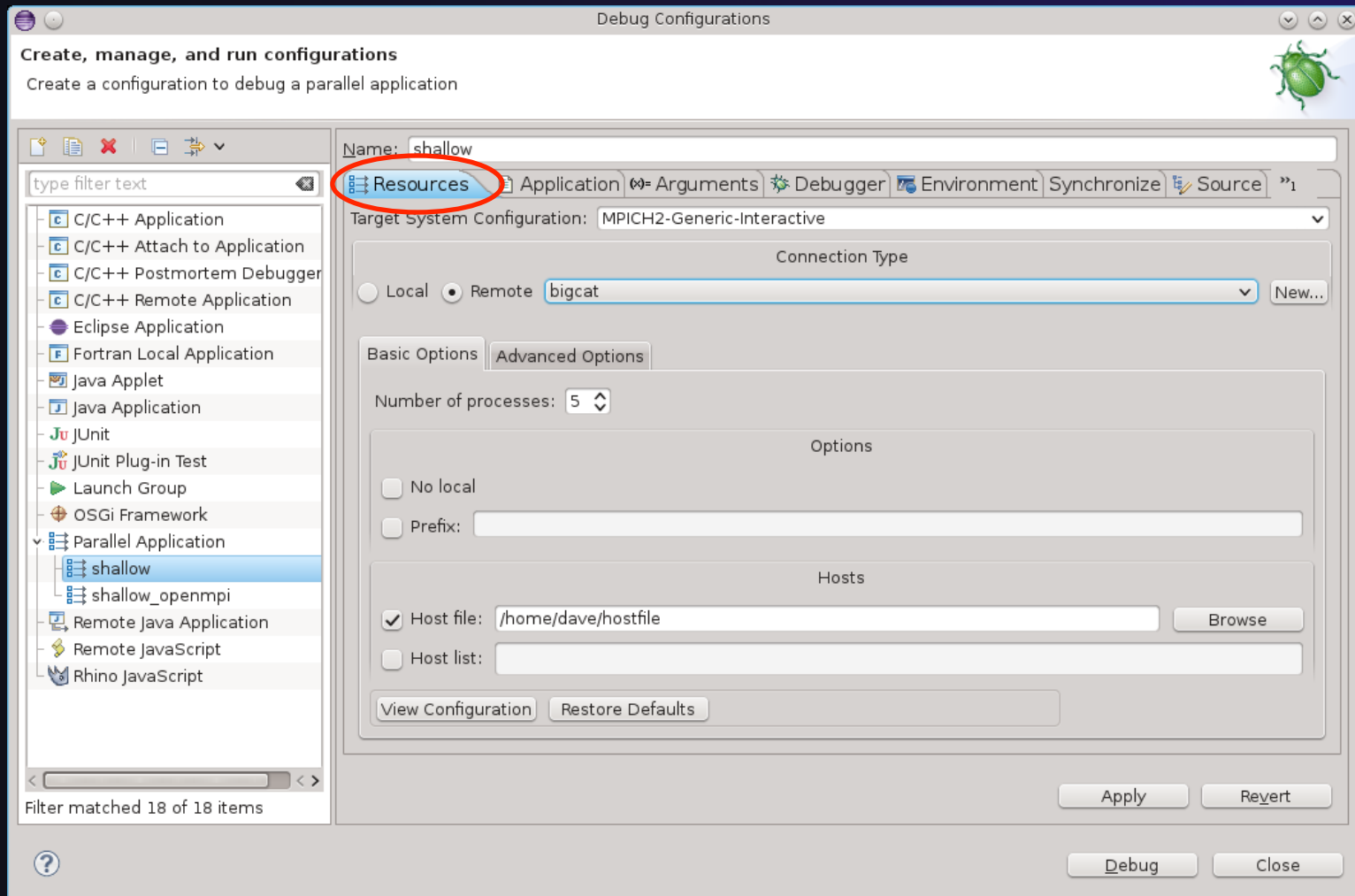
- Current version of Perl (5.18 or later)
- Devel::GDB 2.02 or later from [cpan.org](http://cpan.org)
- Perl Expect module

# Debug Workflow

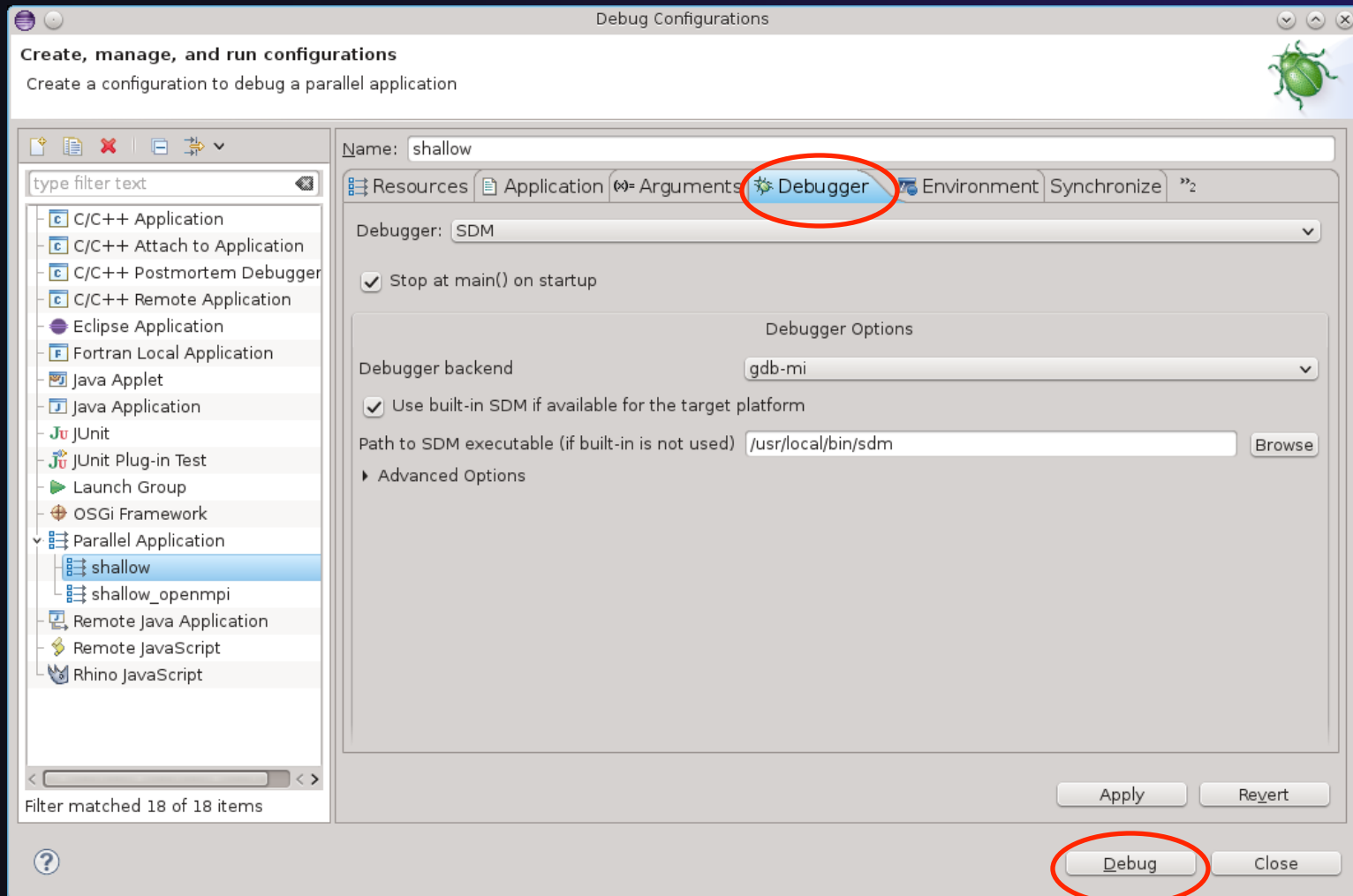
- ★ Compile application
  - g -O0 flags
- ★ Select from main menu:
  - ★ Run->Debug Configurations
- ★ Fill in Resources, Application, Arguments, Debugger and Environment tabs  
(See following slides)



# • Debug Workflow (cont)

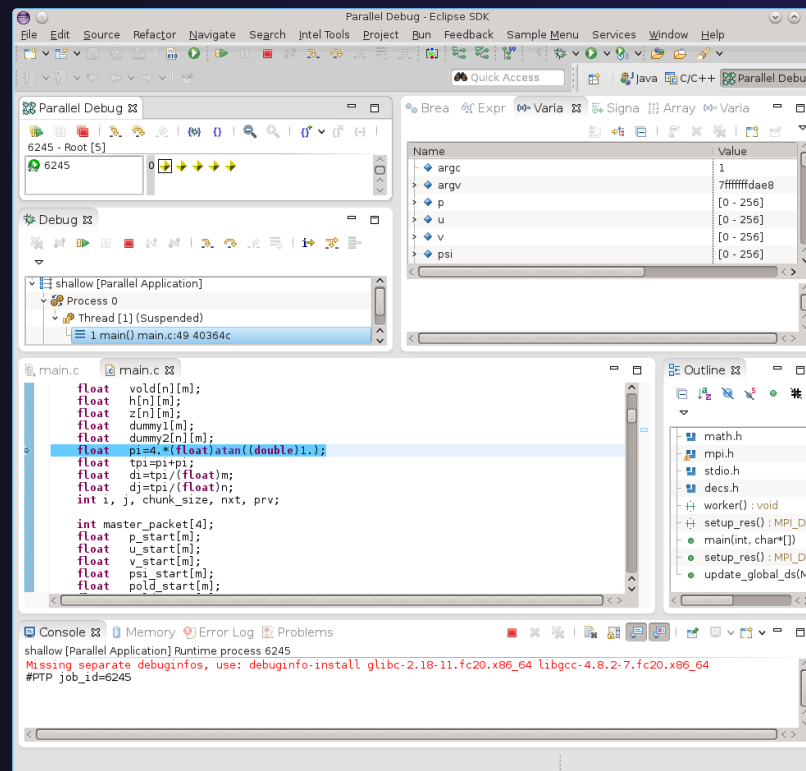


# • Debug Workflow (cont)



- Debug Workflow (cont)

- ✦ Click Debug
- ✦ Debug application



## Parallel debugger basics

- ✧ Step all processes
- ✧ Step a single process
- ✧ Current line marker
- ✧ Breakpoints
- ✧ Run
- ✧ Terminating a debug session



## Wrap-up

- ✧ PTP Parallel Debugger will support MPICH2
  - ✧ Luna release – PTP 8.0 June 2014
- ✧ Questions?
- ✧ Coming Soon:
  - ✧ Eclipse Kepler SR2 (4.3.2)– PTP 7.0.4 – Feb 28
  - ✧ Eclipse Luna (4.4)– PTP 8.0 – June 25
- ✧ Next PTP-User Meeting – Feb 26
  - ✧ Ideas for topics?