Module 2: Installation

✦ Objective
  - ✦ To learn how to install Eclipse and PTP

✦ Contents
  - ✦ System Prerequisites
  - ✦ Eclipse Download and Installation
  - ✦ PTP Installation from an Update Site
  - ✦ Installation Confirmation

About the Tutorial Installation

✦ The PTP Tutorial will assume you already have Eclipse installed on your laptop. Please use these slides to install Eclipse and PTP on your laptop before attending.

✦ Note: up-to-date info on installing PTP and its pre-reqs is available from the release notes:

  ✦ http://wiki.eclipse.org/PTP/release_notes/4.0

  ✦ This information may supersede these slides

✦ Questions? Please ask on the ptp-users mailing list: http://dev.eclipse.org/mhonarc/lists/ptp-user/

System Prerequisites

- ✦ Local system (running Eclipse)
  - ✦ Linux (just about any version)
  - ✦ MacOSX (10.5 Leopard or 10.6 Snow Leopard)
  - ✦ Windows (XP on)
- ✦ Java: Eclipse requires Sun or IBM Java
  - ✦ Only need Java runtime environment (JRE)
  - ✦ Java 1.5 or higher
    - ✦ Java 1.5 is the same as JRE 5.0
  - ✦ Note: The GNU Java Compiler (GCJ), which comes standard on Linux, will not work!
  - ✦ See http://wiki.eclipse.org/PTP/installjava

Eclipse Packages

✦ Eclipse is available in a number of different packages for different kinds of development
  - ✦ http://eclipse.org/downloads
  - ✦ This is Eclipse 3.6, also known as "Helios"
✦ Two packages are more relevant for HPC:
  - ✦ Eclipse IDE for C/C++ developers
    - ✦ Base Eclipse distribution plus C/C++ Dev Tools (CDT)
    - ✦ Smaller and less cluttered than full SDK
    - ✦ Recommended
  - ✦ Eclipse Classic
    - ✦ The full software development kit (SDK), including Java and plug-in development tools (PDT)

Eclipse Installation

- ✦ Download the appropriate package
- ✦ If your machine is Linux or Mac OS X, untar the file
    - ✦ On Mac OS X you can just double-click in the Finder
- ✦ If your machine is Windows, unzip the file
- ✦ This creates an **eclipse** folder containing the executable as well as other support files and folders

Starting Eclipse

- **Linux**
  - From a terminal window, enter "<eclipse_installation_path>/eclipse/eclipse &"

- **Mac OS X**
  - From finder, open the **eclipse** folder where you installed
  - Double-click on the **Eclipse** application
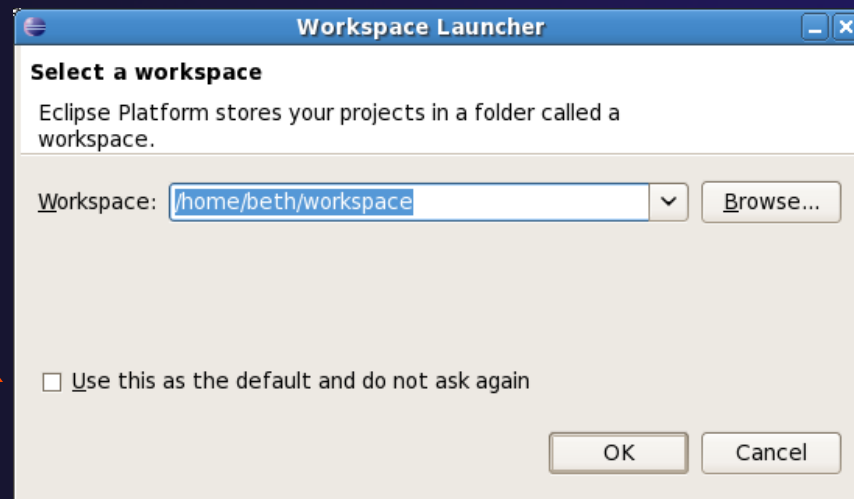 - Or from a terminal window
- **Windows**
  - Open the **eclipse** folder
  - Double-click on the **eclipse** executable

Specifying A Workspace

✦ Eclipse prompts for a workspace location at startup time

✦ The workspace contains all user-defined data
  ✦ Projects and resources such as folders and files

The prompt can be turned off

Eclipse Welcome Page

✦ Displayed when Eclipse is run for the first time

Select "Go to the workbench"

Eclipse C/C++

Eclipse Classic

Confirm PTP Installation

- ✦ If you pre-installed Eclipse and PTP
  - ✦ This will check that it is installed correctly
  - ✦ Skip to "Check Installation Details", slide 2-14
- ✦ If you have pre-installed Eclipse but not PTP
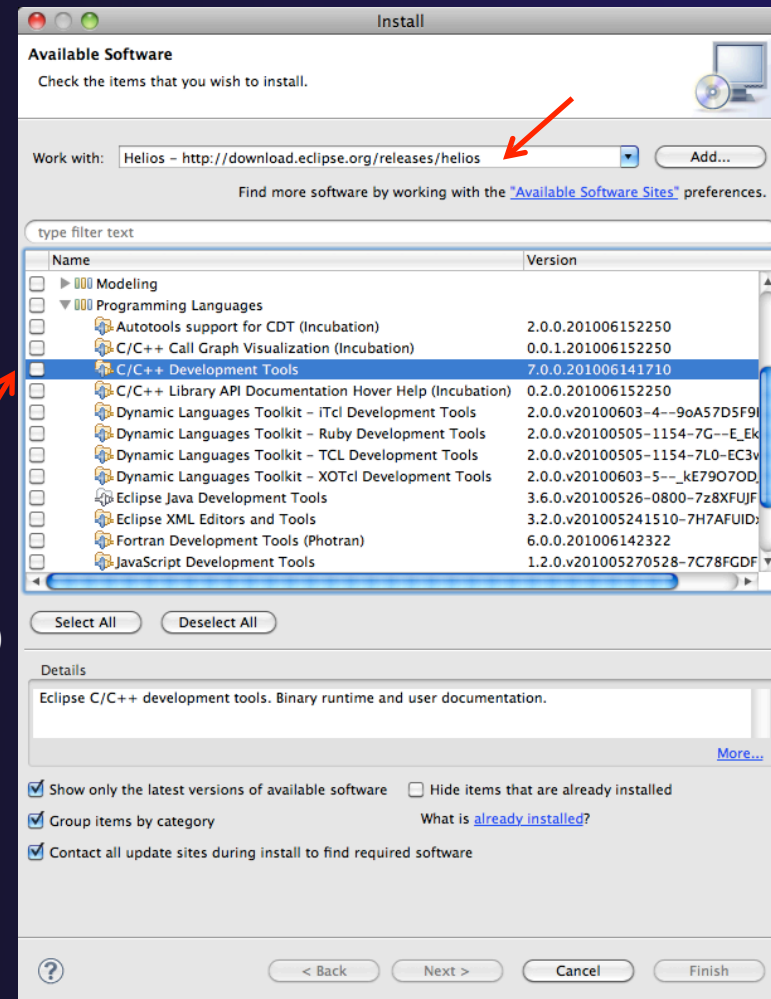 - ✦ Continue following these slides

PTP Installation

✦ New functionality is added to Eclipse using *features*

✦ Features are obtained and installed from

  ✦ An update site on a web server, or
  ✦ A local archive

✦ Eclipse 3.6 comes preconfigured with a link to the **Helios** Update Site

  ✦ This is a remote site that contains a large number of official features
  ✦ Helios projects are guaranteed to work with Eclipse 3.6

Helios Update Site

+ From the **Help** menu, choose **Install New Software...**
+ The Helios site comes already configured with Eclipse

+ We are going to install:
    + C/C++ Development Tools (CDT)*
    + Parallel Tools Platform (PTP) End-User Runtime
    + PTP Remote Development Tools (RDT)

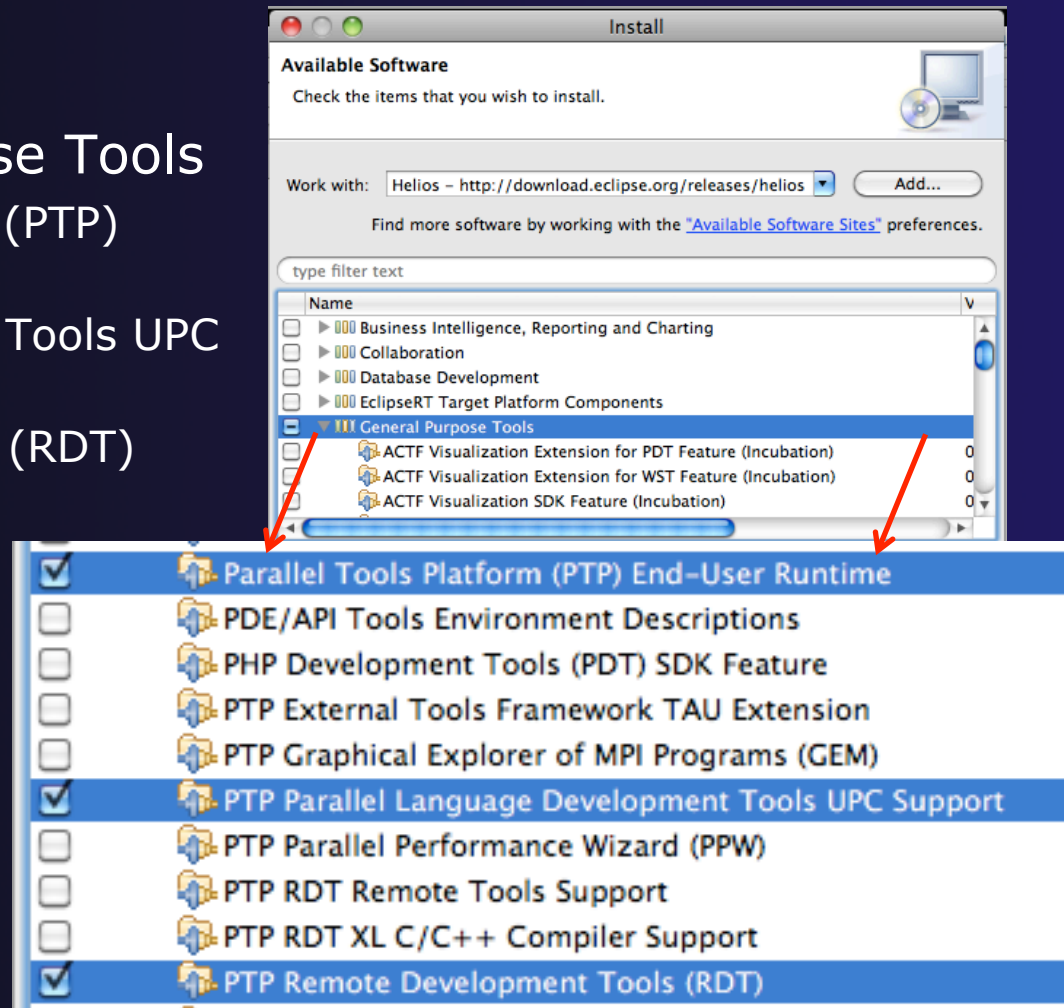   *If you installed the C/C++ IDE, you already have CDT in your Eclipse installation and you can omit this.

Install PTP Features

✦ **Under General Purpose Tools**
- ✦ Parallel Tools Platform (PTP) End-User Runtime
- ✦ PTP Parallel Lang Dev. Tools UPC Support*
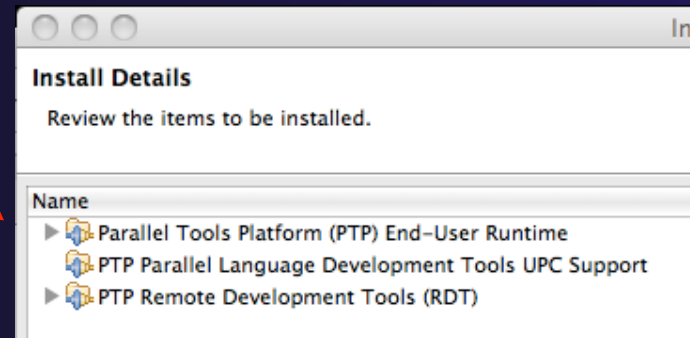- ✦ PTP Remote Dev Tools (RDT)

✦ **Check these and click 'Next'**

* pre-req pulls in optional CDT UPC feature

Finishing Installation
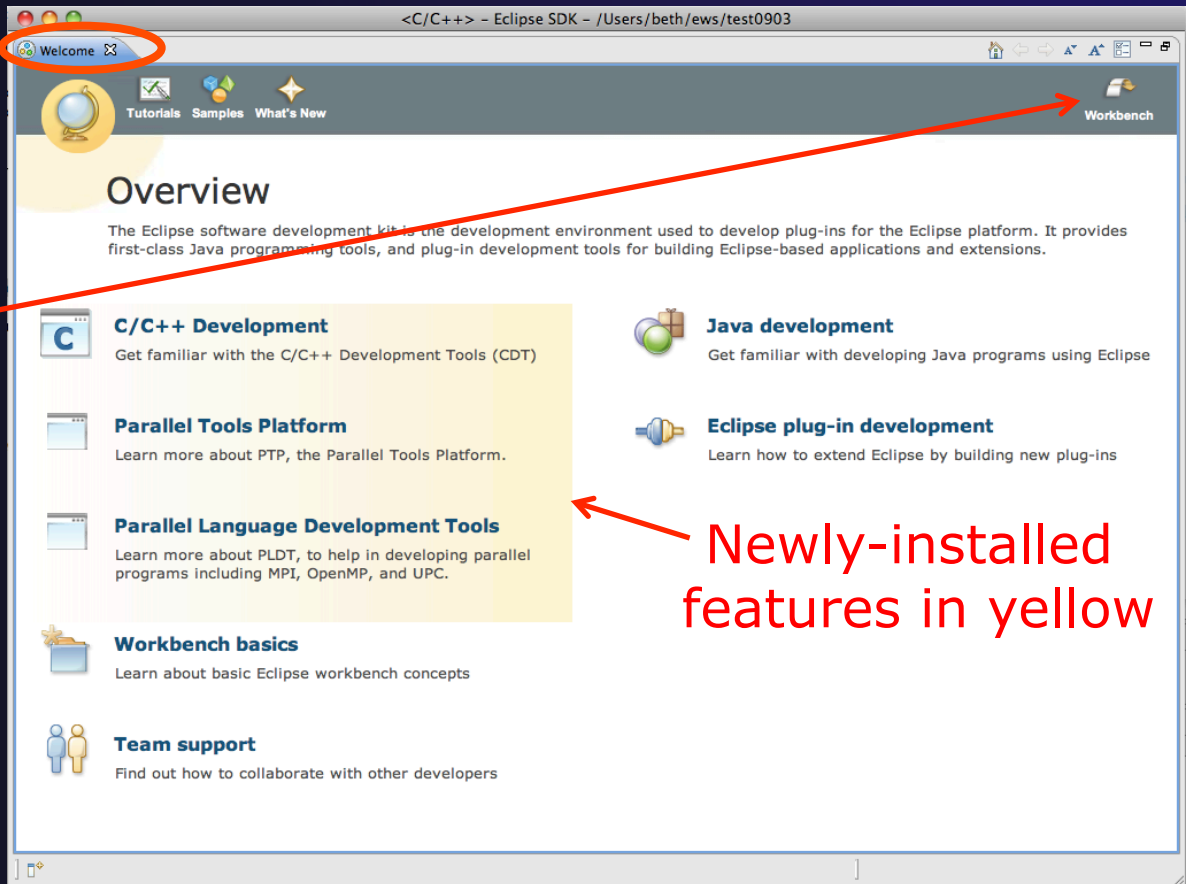
✦ Review the items to be installed

✦ Finish installing:
   ✦ Choose **Next>**
   ✦ Accept license terms
   ✦ Choose **Finish**
   ✦ Features are downloaded and installed
   ✦ Any pre-requisites are also installed if available

✦ Restart Eclipse when prompted

Install Details

Review the items to be installed.

Name
▶ Parallel Tools Platform (PTP) End–User Runtime
   PTP Parallel Language Development Tools UPC Support
▶ PTP Remote Development Tools (RDT)

Restart after Install

✦ **Welcome page informs you of new features installed**

✦ **Click to learn more, or…**
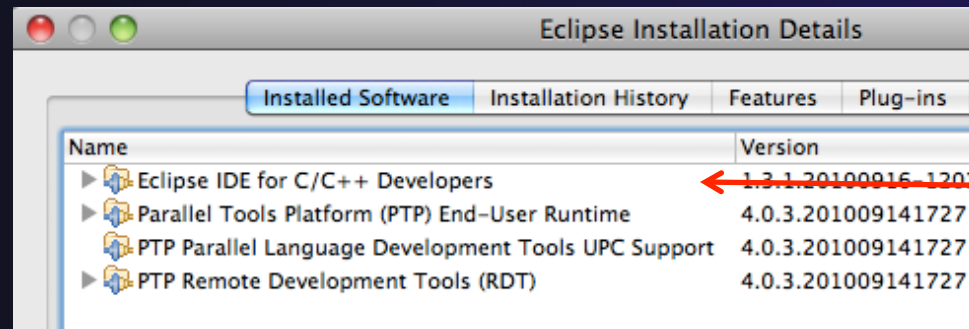
✦ **Select workbench icon to go to workbench**

Newly-installed features in yellow

Check Installation Details

✦ To confirm you have installed OK
  ✦ Mac: **Eclipse>About Eclipse**
  ✦ Others: **Help>About**
✦ Choose **Installation Details**
✦ Confirm you have the following installed software

Differs depending on base download

Checking for PTP Updates

- ✦ From time-to-time there may be newer PTP releases than the Helios release
    - ✦ Helios updates are released only in Sept and February
- ✦ PTP maintains its own update site with the most recent release
    - ✦ Bug fix releases can be more frequent than Helios'
- ✦ You must enable the PTP-specific update site before the updates will be found

Updating PTP

- ✦ Enable PTP-specific update site
  - ✦ **Help>Install new software**
  - ✦ Click **Available Software Sites** link
  - ✦ Enable/Check the PTP site:
    http://download.eclipse.org/tools/ptp/updates/helios
  - ✦ Choose **OK**
  - ✦ Choose **Cancel** (to return to Eclipse workbench)
- ✦ Now select **Help>Check for updates**
  - ✦ Follow prompts like a normal installation

Module 2

2-16