IBM.

Recommended Eclipse reading list

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Summary: Learn about Eclipse with this reading list compiled for developers by Eclipse developers and enthusiasts at IBM.

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Level: Introductory
Activity: 5613 views
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★ ★ ★ ★ ☆   Average rating

Introduction

This list is compiled from a variety of sources and is intended for anyone who wishes to find centralized reading material about Eclipse. One of the biggest challenges new Eclipse users face is where to find the right information for a task. This article provides a small step in solving that problem.

Overview

Eclipse is an open source community with projects focused on providing an extensible development platform and application frameworks for building software. This article provides links to the latest Eclipse versions, books, articles, and Web sites.

What is Eclipse?
Wikipedia provides a great overview of Eclipse and its history.

Getting started

If your idea of "Eclipse" is the event when the moon passes between the Earth and Sun or a two-door sports coupe, then this section would be a good start.

Get started now with Eclipse
This developerWorks resource provides answers to many common questions regarding Eclipse. It is part of the developerWorks Eclipse top project resources.

Eclipse Distilled
If you need a broad yet practical introduction to Eclipse, this book by David Carlson is a great start. It covers the basic Eclipse concepts: views, editors, perspectives, debugging, and more.

Development

General development

Java Developer's Guide to Eclipse

This book (one of the first about Eclipse) provides a superb introduction to the Eclipse platform from the perspective of a Java™ technology developer. It covers topics ranging from general Java development to plug-in development.

Eclipse IDE Pocket Guide

This guide covers the basics of Eclipse in about 100 pages.

Eclipse development

Eclipse Rich Client Platform: Designing, Coding and Packaging Java Applications

If you want to be building, branding and shipping Eclipse RCP-based applications, this should be your first stop.

Contributing to Eclipse: Principles, Patterns and Plug-ins

Kent Beck and Erich Gamma give a step-by-step tutorial on how to create an RCP-based application.

Eclipse: Building Commercial-Quality Plug-ins

This book covers all you need to know about developing an Eclipse RCP-based product from start to finish.

Official Eclipse FAQs

This Eclipse.org wiki covers common questions and answers regarding Eclipse development. If you ever wondered how to create your own project nature, this is a simple way to get that question answered. Note: It is based on the content found in The Official Eclipse 3.0 FAQs.

Rich Client Tutorial Part 1

This series of tutorials from Eclipse.org covers the basics of RCP development. Part 1 covers the absolute basics of what it means to be an RCP application, Part 2 covers user interface-related elements of RCP-based applications, and Part 3 covers creating a really simple RCP-based application.

Web development

The Eclipse project contains a top-level project known as the Web Tools Platform (WTP) that serves as the base for all Web-related tooling.

Pro Eclipse JST: Plug-ins for J2EE Development

This book covers Eclipse J2EE tooling extensively.

Creating Database Web Applications with Eclipse

This article explains how to create a simple database Web application using Eclipse WTP.

"Developing Web Services -- Eclipse Web Tools Project"

This article will teach you how to develop a full-blown Web application using

WTP.

Business intelligence

The Eclipse project contains an Eclipse-based reporting system, known as the Business Intelligence and Reporting Tools (BIRT) project, that integrates with your application to produce compelling reports for the Web and PDF. BIRT provides core reporting features like report layout, data access, and scripting.

"Extract database information using Eclipse and BIRT V2.0"
> This tutorial discusses using BIRT in the context of designing dynamic reports, charts, and templates.

Integrating and Extending BIRT
> Convinced you want to use BIRT in your application? This book can help you integrate and customize BIRT in anything from Web applications to stand-alone rich-client applications.

BIRT: A Field Guide to Reporting
> Start here to learn about BIRT and how to use it.

Modeling

The Eclipse project has excellent modeling-related technologies. One is the Eclipse Modeling Framework (EMF). EMF helps you rapidly turn models into efficient, correct, and easily customizable Java code. And the Graphical Modeling Framework (GMF) provides the tooling to generate a fully functional graphical editor from your EMF model (and more).

Eclipse Modeling Framework
> This book is the EMF Holy Grail. Start your EMF adventure here.

"Model with the Eclipse Modeling Framework, Part 1"
> This series covers various facets of working with EMF. Part 1 discusses how to generate code from your model; Part 2 discusses EMF's code-generation component known as Java Emitter Templates (JET); and Part 3 discusses EMF's code-generation component known as JMerge, which can be used to customize the output of JET templates.

"Discover the Eclipse Modeling Framework (EMF) and its Dynamic Capabilities"
> Read this article to learn how to manipulate your EMF model dynamically.

GMF Tutorial, Part 1
> This series of tutorials provides a good overview of GMF. Part 1 covers the development of a sample graphical editor from start to finish and Part 2 covers advanced aspects of the GMF generation and runtime frameworks.

Introducing the GMF Runtime
> Get an introduction to the runtime that powers all GMF-based editors.

Debugging and profiling

In Eclipse, there is a top-level project known as the Test and Performance Tools Platform (TPTP), which is a universal platform for test and performance tools.

"Introduction: Eclipse Test and Performance Tools Platform"
This tutorial covers the basics of testing and profiling using TPTP.

"Eclipse Test and Performance Tools Platform"
This series of tutorials covers basic usage of TPTP. Part 1 discusses the basics of testing, profiling, and monitoring applications; and Part 2 discusses collecting and analyzing log files.

Java Application Profiling Using TPTP
This article covers an example application of TPTP that involves profiling a Java application.

User interface development

Eclipse is built on top of the Standard Widget Toolkit (SWT), which provides access to the user-interface facilities of the operating systems on which it is implemented (and is responsible for Eclipse's snazzy user interface). Eclipse also has the Graphical Editing Framework (GEF), which is a tool built on top of SWT to allow for the rapid creation of graphical editors. Furthermore, Eclipse has the Visual Editor Project (VEP), which serves as a framework to create GUI builders.

SWT: The Standard Widget Toolkit, Volume 1
This book covers SWT really well and is written by SWT committers.

SWT: A Developer's Notebook
Read this for a concise guide to SWT with concrete examples (hardly any fluff).

SWT/JFace in Action
This book gives a great overview of SWT and JFace. As a bonus, there is excellent section about GEF in the appendix.

The Definitive Guide to SWT and JFace
Read this for in-depth coverage of using SWT and JFace in your applications.

Creating JFace Wizards
Learn about implementing wizards and contributing them to the Eclipse workbench.

Eclipse Forms: Rich UI for the Rich Client
Find out about Eclipse Forms, which is a thin graphics toolkit implemented on top of SWT.

Using OpenGL with SWT
Find out how to use OpenGL in your SWT applications.

Extending The Visual Editor: Enabling support for a custom widget

Read this to find out how to extend the Visual Editor project to support a custom widget.

"Create an Eclipse game plug-in"

This series of tutorials goes in-depth in explaining how to create a game using Eclipse. Part 1 covers the basics of Eclipse and SWT, Part 2 covers more advanced aspects of SWT/OpenGL to bring your game to life, and Part 3 covers adding more physics to your game (such as collision detection).

"A gentle introduction to SWT and JFace"

Read through this series of articles to learn how to create simple Standard Widget Toolkit (SWT) applications using Java technology, Eclipse, and the SWT and JFace libraries.

Community

Mailing lists

Eclipse mailing lists

Mailing lists are a good source of information regarding subject-specific needs. Note: Mailing lists are primarily used by Eclipse committers, and it is recommended to use the Eclipse newsgroups to post questions.

Newsgroups

Eclipse newsgroups

This is the most useful resource for Eclipse questions. It contains a veritable tome of information that should be searched by every Eclipse developer.

Wiki

Official Eclipse wiki

The Eclipse wiki contains information about projects posted by Eclipse committers.

Unofficial Eclipse wiki

The unofficial Eclipse wiki contains useful information written by the Eclipse community.

News

Planet Eclipse

Planet Eclipse is a window into the world, work, and lives of Eclipse hackers and contributors.

EclipseZone

This is an active site that contains up-to-date information regarding Eclipse happenings.

Blogs

Chris Aniszczyk

Chris Aniszczyk is a committer on a few Eclipse projects -- and is the author of this article.

Wayne Beaton

Wayne Beaton is the Eclipse Foundation's Eclipse evangelist.

Bjorn Freeman-Benson and Ward Cunningham

Bjorn Freeman-Benson and Ward Cunningham are Eclipse Foundation employees that blog about open-source development Eclipse issues.

John Graham

John Graham is the PMC chair for the Eclipse Data Tools Platform (DTP) project.

Kim Horne

Kim Horne is an Eclipse committer on the Eclipse Platform.

Wassim Melhem

Wassim Melhem is the lead of the Plug-in Development Environment (PDE) project.

Mike Milinkovich

Mike Milinkovich is the executive director of the Eclipse Foundation.

Doug Schaefer

Doug Schaefer is the lead of Eclipse's C/C++ Tools project (CDT).

Michael Scharf

Michael Scharf is a member of the Eclipse architecture council.

Ian Skerrett

Ian Skerrett is director of marketing at the Eclipse Foundation.

Tim Wagner

Tim Wagner leads the Web Tools Platform (WTP) project at Eclipse.

Chat

IRC

IRC is a great tool to get instant help from the Eclipse community.

Other resources

User groups

bostonEDGE Eclipse Developer's Group

Live in Boston? Want to find other like-minded Eclipse people? Check out this group.

Magazines

Eclipse Review

This is a quarterly magazine for IT professionals, including software developers, who use Eclipse-based tools and technologies.

Eclipse Magazin

Eclipse Magazin is a German Eclipse magazine.

About the author

Chris Aniszczyk is a software engineer at IBM Lotus focusing on OSGi related development. He is an open source enthusiast at heart, and he works on the Gentoo Linux distribution and is a committer on a few Eclipse projects (PDE, ECF, EMFT). He's always available to discuss open source and Eclipse over a frosty beverage.

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