Integrated Development Environment e2 studio

how to utilize Jenkins from e2 studio

Introduction

e2 studio is an integrated development environment based on Eclipse, so that e2 studio is possible to realize work with external tool using plugin of Eclipse.

This document describes how to utilize Jenkins from e2 studio using Mylyn Hudson Connector plugin

Contents

1. Introduction ................................................................................................................... 2
   1.1 e2 studio with Jenkins and Mylyn Hudson Connector .............................................. 2
   1.2 Environment ............................................................................................................. 2

2. Usage ............................................................................................................................. 3
   2.1 Workflow of connection from Jenkins to Mylyn Hudson Connector ....................... 3
   2.2 Architecture of Jenkins and e² studio co-operation ................................................ 4
   2.3 Create a build repository .......................................................................................... 5
   2.4 Hudson Connector Feature ....................................................................................... 7
   2.5 Headless build using e² studio ................................................................................ 10

3. Reference Information ................................................................................................. 11
   3.1 Web Site .................................................................................................................... 11
1. Introduction

1.1 e2 studio with Jenkins and Mylyn Hudson Connector

The Mylyn Hudson Connector, which also supports Jenkins, improves project visibility and productivity by providing
direct access to Jenkins from within the Eclipse IDE. The connector makes it possible to work with Jenkins day-to-day
entirely from within the Eclipse IDE with support for running and monitoring builds as well as inspecting the results.
The connector's rich integrated editor displays build information to provide a quick overview of test results, artifacts
and changes for each build.. (Refer URL: http://wiki.eclipse.org/Mylyn/Extensions)

e2 studio is an integrated development environment based on Eclipse, so that e2 studio is possible to realize work with
external tool using plugin of Eclipse. This document describes how to utilize Jenkins from e2 studio using Mylyn
Hudson Connector plugin

1.2 Environment

This document is described based on environment as the following:

- e2 studio: 3.1.0.xx
- Mylyn: 3.9.x
- Jenkins: 1.579
- Mylyn Hudson Connector: 1.1.2
- OS: Windows 7
2. Usage

2.1 Workflow of connection from Jenkins to Mylyn Hudson Connector

Figure 1: Workflow of connection from Jenkins to Mylyn Hudson connector
2.2 Architecture of Jenkins and e² studio co-operation

![Diagram showing the architecture of Jenkins and e² studio co-operation]

**Figure 2: Architecture of Jenkins and e² studio co-operation**
2.3 Create a build repository

To create a new build repository:

1. Select Window (menu) > ‘Show view’ > ‘Other’ > ‘Mylyn’ > ‘Team Repositories’
2. Right click on the ‘Team Repositories’ view > ‘New’ > ‘Repository…’

![New Repository Wizard]

4. Fill necessary information

![New Build Server]

Server Properties:
- Server: http://172.29.145.152:8080/
- Label: JenkinsBuildServer
- User: user1
- Password: ********
- Build Plans:
  - Build free-style
  - Build free-style Test
  - Build multi-config
  - Monitor a job

HTTP Authentication:
- Certificate Authentication
- Proxy Server Configuration
Integrated Development Environment e2 studio  how to utilize Jenkins from e2 studio

a. Server: Specifies an URL server’s address
b. Label: Specifies label will be used for Build repository
c. User name, password: uncheck ‘Anonymous’ and input username password of Jenkins server (optional)
d. Build Plans: select build plan which you want to add to build repository

5. Select the ‘Finish’ button.
6. Create the ‘Build Repository’ successfully
2.4 Hudson Connector Feature

1. Jenkins job summary
   To open Jenkins job summary: select to ‘Window’ (menu) > ‘Show view’ > ‘Other…’ > Mylyn > ‘Builds’. The ‘Builds’ view will show the status of selected Jenkins jobs.
   Tool-tip of Jenkins job shows detail information about the plan and last build.
   Icon weather shows the build stability job.

   ![Jenkins Build Server](image)
   Build free-style 2 out of the last 5 builds failed.
   - Build free-style Test  All recent builds failed.
   - Build multi-config  All recent builds failed.
   - Monitor a job

2. Builds Editor
   The builds editor shows the builds in detail. Build editor include status, test results, artifacts, and code changes.
   To open the builds editor, we have two simple ways.
   a. First way:
      - On the ‘Builds’ view, right click Jenkins job > ‘History’

         ![Build Plan Build free-style](image)
         Build Plan Build free-style
         ID | Time | Duration | Summary
         ---|------|----------|--------
         28 Aug 6, 2014 3:02:46... | 0:00:02 | Started by user anonymous
         27 Aug 6, 2014 2:59:56... | 0:00:07 | Started by user anonymous
         26 Aug 6, 2014 11:47:34... | 0:00:02 | Started by user anonymous
         25 Aug 6, 2014 10:45:06... | 0:00:01 | Started by user user1
         24 Aug 6, 2014 10:44:50... | 0:00:02 | Started by user anonymous
         23 Aug 6, 2014 10:33:38... | 0:00:01 | Started by user user1
         22 Aug 6, 2014 10:28:14... | 0:00:12 | Started by user user1
         21 Aug 6, 2014 10:07:46... | 0:00:01 | Started by user user1
         20 Aug 6, 2014 10:05:38... | 0:00:01 | Started by user user1
         19 Aug 6, 2014 10:05:16... | 0:00:01 | Started by user user1
         18 Aug 6, 2014 10:02:40... | 0:00:02 | Started by user anonymous
         17 Aug 6, 2014 9:55:10... | 0:00:03 | Started by user anonymous
         16 Aug 6, 2014 4:22:44... | 0:00:02 | Started by user anonymous

   - On the ‘History’ view, double click to the build which one you need to show
b. Second way (just open the latest builds plan): On the ‘Builds’ view, double clicks to the selected Jenkins job or right click to the selected Jenkins job > select ‘Open Last Build’. The ‘Builds Editor’ will be opened the latest build plan.
3. Run Build
On the ‘Builds’ view, right click Jenkins job > select ‘Run Build’ > the ‘Jenkins job’ build is run

4. Show output
Show output records information of build process. To show output:
   a. First way: on the ‘Builds’ view, right click Jenkins job > select ‘Last Build’ > select ‘Show output’
   
   b. Second way: on the ‘Builds Editor’, select ‘Console’ link in ‘Show output in Console’

The image below is an example for result of build in console output

```
Output for Build 8
Starting execution...
Results
Passed
Passed
Passed
Passed
3/3 tests passed
Summary
Test Run Completed.
Passed 3

Results files: C:\Workspace\tool\hudson\jobs\Build free-style\workspace\TEST\TestProject1\TestProject1\bin\Debug\TestResults1.xml
Run Configuration: Default Run Configuration
C:\Workspace\tool\hudson\jobs\Build free-style\workspace\TEST\TestProject1\TestProject1\bin\Debug\exit 0
Finished: SUCCESS
```
2.5 Headless build using e2 studio

Headless build is the ability to run build on the command line without using the Eclipse GUI.

You can build from Jenkins using the headless build with e2 studio also.

For detail, please refer at Help > Using e2 studio in Hudson/Jenkins.
3. Reference Information

3.1 Web Site

Eclipse Mylyn plug-in home page URL:
http://eclipse.org/mylyn
http://wiki.eclipse.org/Mylyn/Builds
http://wiki.eclipse.org/Mylyn/Builds/Architecture

Eclipse home page URL:
http://eclipse.org
Website and Support

Renesas Electronics Website
http://www.renesas.com/

Inquiries
http://www.renesas.com/contact/

All trademarks and registered trademarks are the property of their respective owners.
General Precautions in the Handling of MPU/MCU Products

The following usage notes are applicable to all MPU/MCU products from Renesas. For detailed usage notes on the products covered by this document, refer to the relevant sections of the document as well as any technical updates that have been issued for the products.

1. Handling of Unused Pins
   Handle unused pins in accordance with the directions given under Handling of Unused Pins in the manual.
   - The input pins of CMOS products are generally in the high-impedance state. In operation with an unused pin in the open-circuit state, extra electromagnetic noise is induced in the vicinity of LSI, an associated shoot-through current flows internally, and malfunctions occur due to the false recognition of the pin state as an input signal become possible. Unused pins should be handled as described under Handling of Unused Pins in the manual.

2. Processing at Power-on
   The state of the product is undefined at the moment when power is supplied.
   - The states of internal circuits in the LSI are indeterminate and the states of register settings and pins are undefined at the moment when power is supplied. In a finished product where the reset signal is applied to the external reset pin, the states of pins are not guaranteed from the moment when power is supplied until the reset process is completed. In a similar way, the states of pins in a product that is reset by an on-chip power-on reset function are not guaranteed from the moment when power is supplied until the power reaches the level at which resetting has been specified.

3. Prohibition of Access to Reserved Addresses
   Access to reserved addresses is prohibited.
   - The reserved addresses are provided for the possible future expansion of functions. Do not access these addresses; the correct operation of LSI is not guaranteed if they are accessed.

4. Clock Signals
   After applying a reset, only release the reset line after the operating clock signal has become stable. When switching the clock signal during program execution, wait until the target clock signal has stabilized.
   - When the clock signal is generated with an external resonator (or from an external oscillator) during a reset, ensure that the reset line is only released after full stabilization of the clock signal. Moreover, when switching to a clock signal produced with an external resonator (or by an external oscillator) while program execution is in progress, wait until the target clock signal is stable.

5. Differences between Products
   Before changing from one product to another, i.e. to a product with a different part number, confirm that the change will not lead to problems.
   - The characteristics of an MPU or MCU in the same group but having a different part number may differ in terms of the internal memory capacity, layout pattern, and other factors, which can affect the ranges of electrical characteristics, such as characteristic values, operating margins, immunity to noise, and amount of radiated noise. When changing to a product with a different part number, implement a system-evaluation test for the given product.
Notice

1. Descriptions of circuits, software and other related information in this document are provided only to illustrate the operation of semiconductor products and application examples. You are fully responsible for the incorporation of these circuits, software, and information in the design of your equipment. Renesas Electronics assumes no responsibility for any losses incurred by you or third parties arising from the use of such circuits, software, or information.

2. Renesas Electronics has used reasonable care in preparing the information included in this document, but Renesas Electronics does not warrant that such information is error free. Renesas Electronics assumes no liability whatsoever for any damages incurred by you resulting from errors or omissions from the information included herein.

3. Renesas Electronics does not assume any liability for infringement of patents, copyrights, or other intellectual property rights of third parties by or arising from the use of Renesas Electronics products or technical information described in this document. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of Renesas Electronics or others.

4. You should not alter, modify, copy, or otherwise misappropriate any Renesas Electronics product, whether in whole or in part. Renesas Electronics assumes no responsibility for any losses incurred by you or third parties arising from such alteration, modification, copy or otherwise misappropriation of Renesas Electronics product.

5. Renesas Electronics products are classified according to the following two quality grades: “Standard” and “High Quality”. The recommended applications for each Renesas Electronics product depends on the product's quality grade, as indicated below.

   - “Standard”: Computers; office equipment; communications equipment; test and measurement equipment; audio and visual equipment; home electronic appliances; machine tools; personal electronic equipment; and industrial robots etc.
   - “High Quality”: Transportation equipment (automobiles, ships, aircrafts, etc.); traffic control systems; anti-disaster systems; anti-crime systems; and safety equipment etc.

Renesas Electronics products are neither intended nor authorized for use in products or systems that pose a direct threat to human life or bodily injury (artificial life support devices or systems, surgical implantation etc.) or may cause serious property damages (nuclear reactor control systems, military equipment etc.). You must check the quality grade of each Renesas Electronics product before using it in your application. You may not use any Renesas Electronics product for any application for which it is not intended. Renesas Electronics shall not be in any way liable for any damages or losses incurred by you or third parties arising from the use of any Renesas Electronics product for which the product is not intended by Renesas Electronics.

6. You should use the Renesas Electronics products described in this document within the range specified by Renesas Electronics, especially with respect to the maximum rating, operating supply voltage range, movement power voltage range, heat radiation characteristics, installation and other product characteristics. Renesas Electronics shall have no liability for malfunctions or damages arising out of the use of Renesas Electronics products beyond such specified ranges.

7. Although Renesas Electronics endeavors to improve the quality and reliability of its products, semiconductor products have specific characteristics such as the occurrence of failure at a certain rate and malfunction under certain use conditions. Further, Renesas Electronics products are not subject to radiation hardness design. Please be sure to implement safety measures to guard against the possibility of physical injury, and injury or damage caused by fire in the event of the failure of a Renesas Electronics product, such as safety design for hardware and software including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other appropriate measures. Because the evaluation of microcomputer software alone is very difficult, please evaluate safety of the final products or systems manufactured by you.

8. Please contact a Renesas Electronics sales office for details as to environmental matters such as the environmental compatibility of each Renesas Electronics product. Please use Renesas Electronics products in compliance with all applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive. Renesas Electronics assumes no liability for damages or losses occurring as a result of your noncompliance with applicable laws and regulations.

9. Renesas Electronics products and technology may not be used for or incorporated into any products or systems whose manufacture, use, or sale is prohibited under any applicable domestic or foreign laws or regulations. You should not use Renesas Electronics products or technology described in this document for any purpose relating to military applications or the military, including but not limited to the development of weapons of mass destruction. When exporting the Renesas Electronics products or technology described in this document, you should comply with the applicable export control laws and regulations and follow the procedures required by such laws and regulations.

10. It is the responsibility of the buyer or distributor of Renesas Electronics products, who distributes, disposes of, or otherwise places the product with a third party, to notify such third party in advance of the contents and conditions set forth in this document. Renesas Electronics assumes no responsibility for any losses incurred by you or third parties as a result of unauthorized use of Renesas Electronics products.

11. This document may not be reproduced or duplicated in any form, in whole or in part, without prior written consent of Renesas Electronics.

12. Please contact a Renesas Electronics sales office if you have any questions regarding the information contained in this document or Renesas Electronics products, or if you have any other inquiries.

(Note 1) "Renesas Electronics" as used in this document means Renesas Electronics Corporation and also includes its majority-owned subsidiaries.

(Note 2) "Renesas Electronics product(s)" means any product developed or manufactured by or for Renesas Electronics.