Integrated Development Environment e2 studio

how to utilize Jenkins from e2 studio

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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

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:

e^2 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

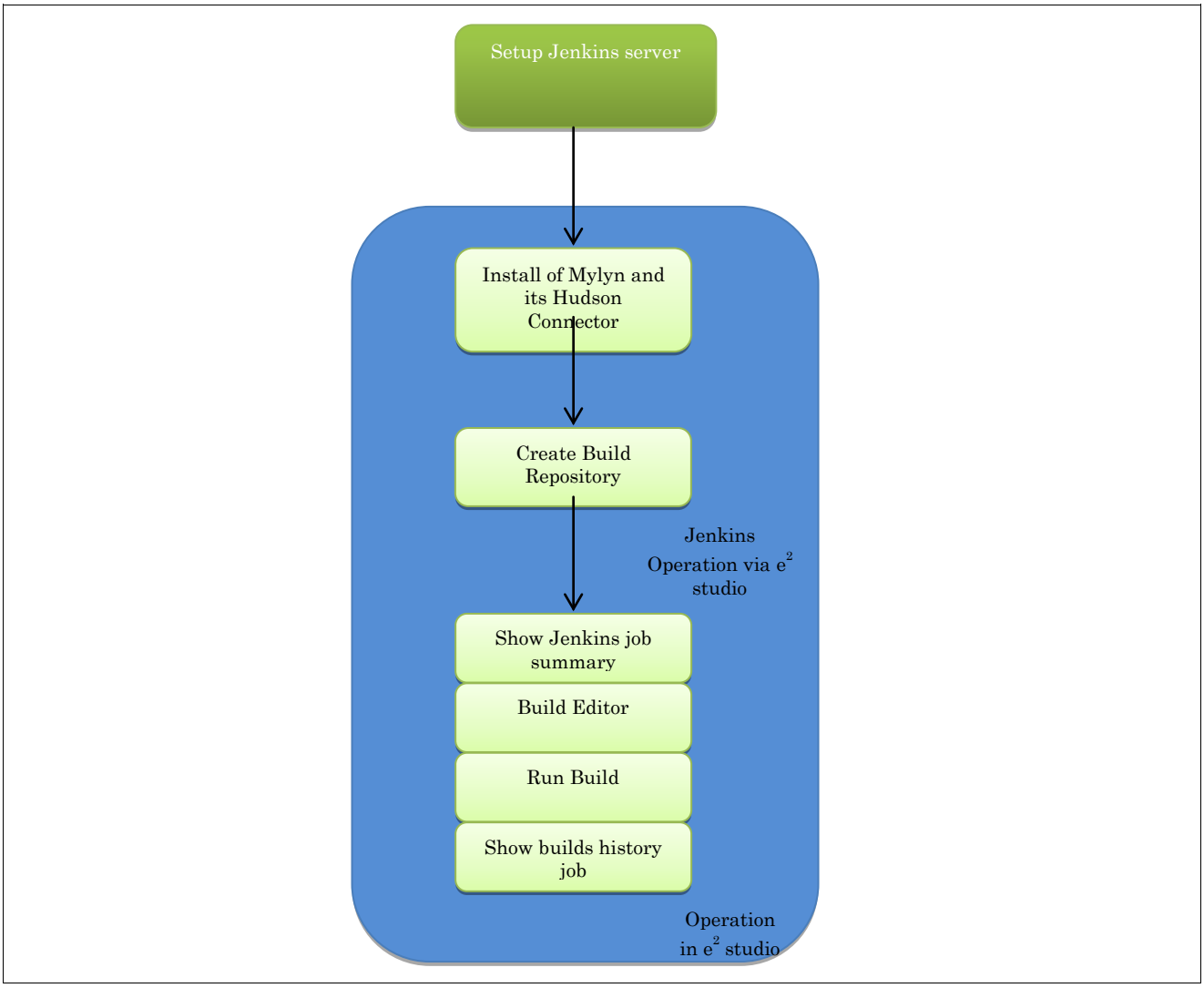


Figure 1: Workflow of connection from Jenkins to Mylyn Hudson connector

2.2 Architecture of Jenkins and e² studio co-operation

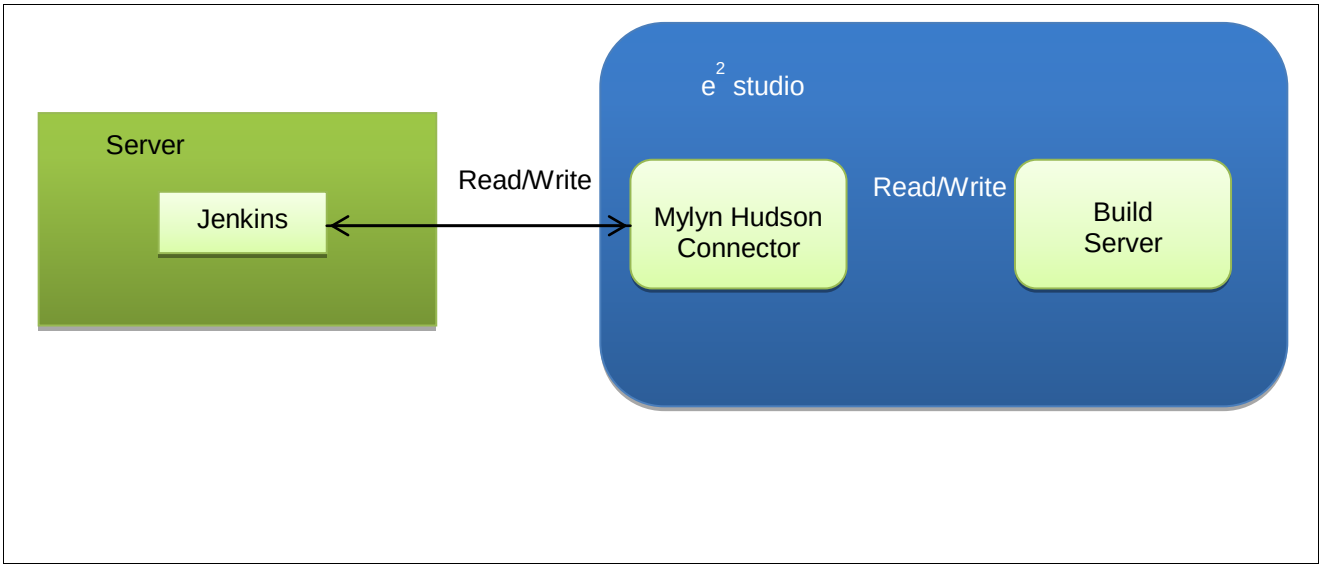
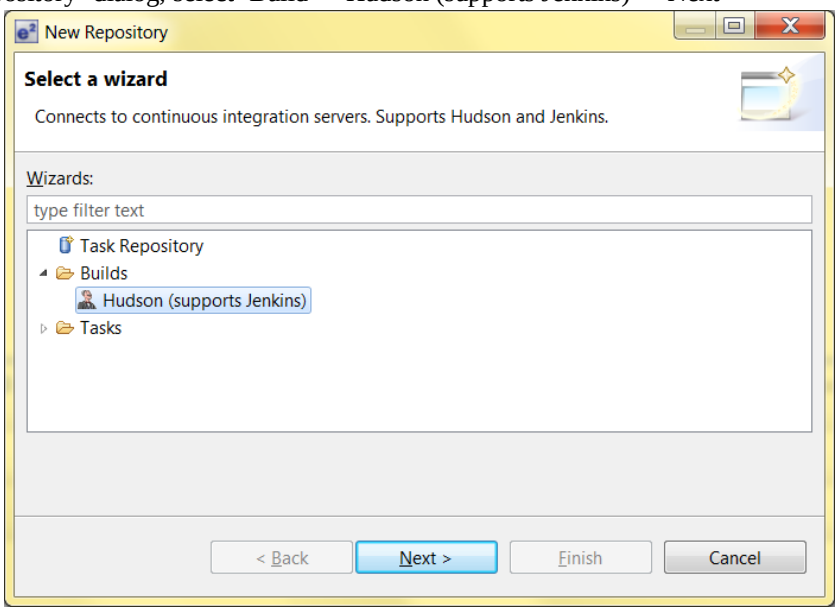


Figure 2: Architecture of Jenkins and e2 studio co-operation

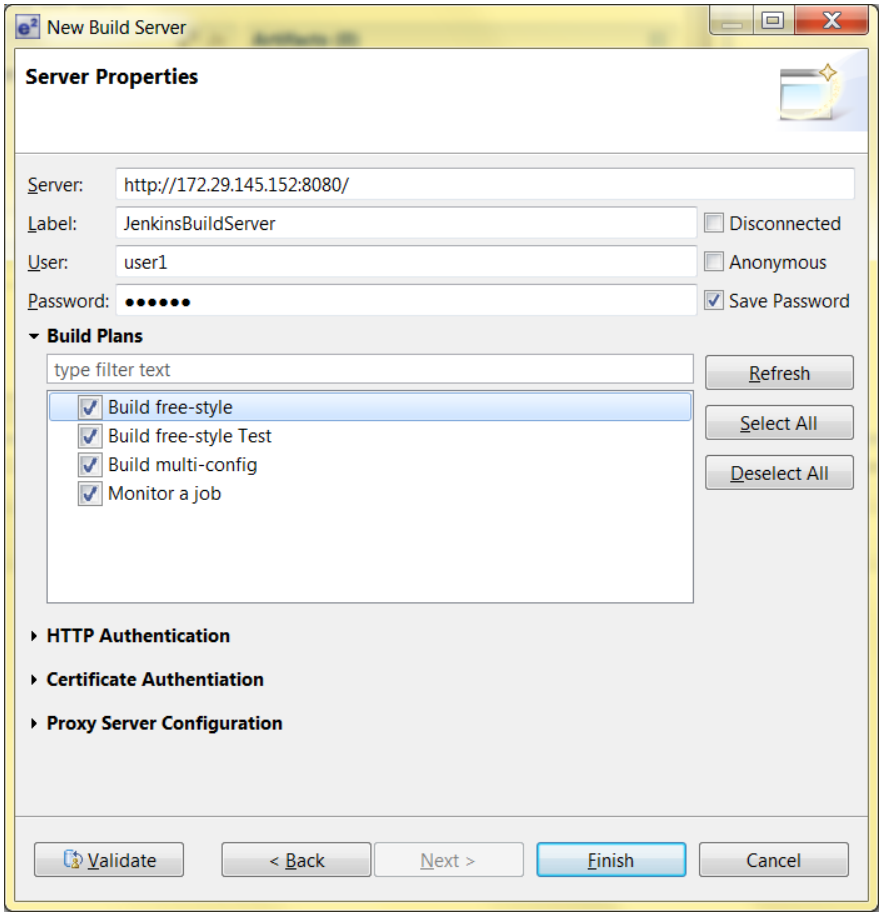
2.3 Create a build repository

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…’
3. On the ‘New Repository’ dialog, select ‘Build’ > Hudson (supports Jenkins) > ‘Next>’

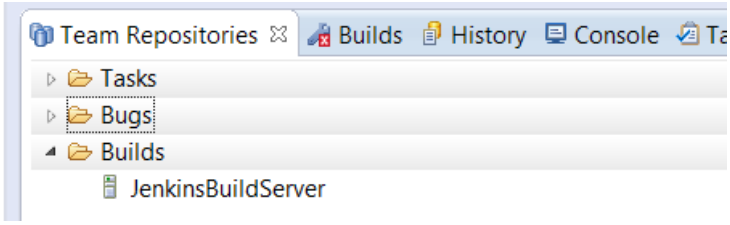


4. Fill necessary information



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



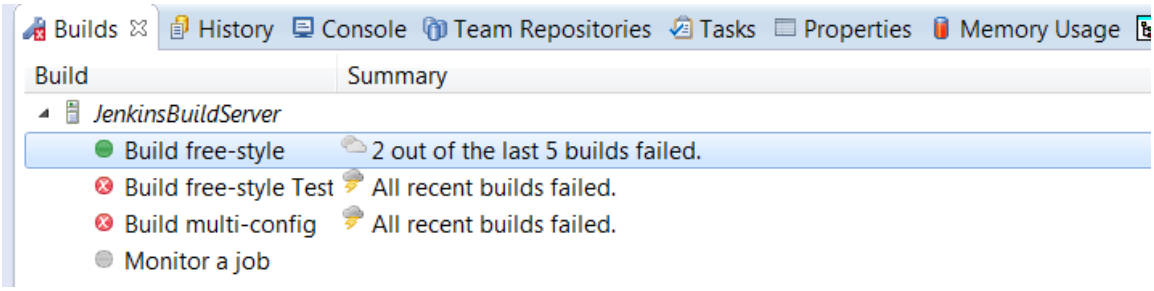
2.4 Hudson Connector Feature

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.

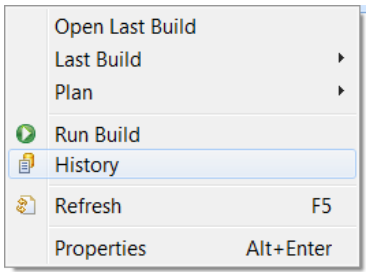


2. Builds Editor

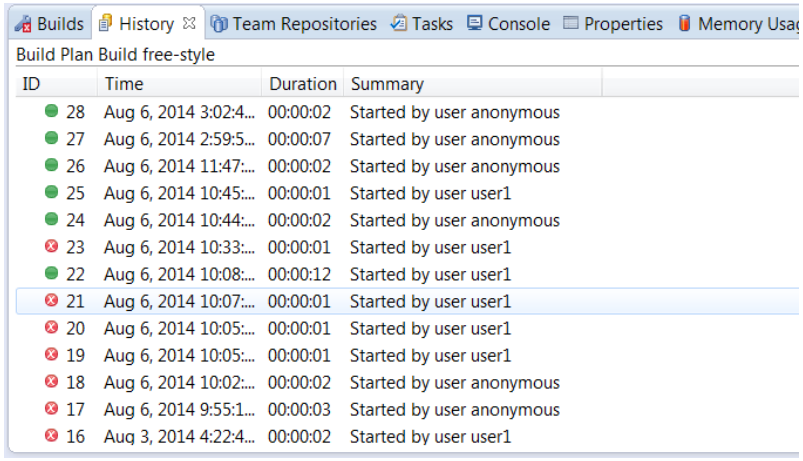
The builds editor shows the builds in detail. Build editor include status, test results, artifacts, and code changes. To open the builds editor, we have two simple ways.

a. First way:

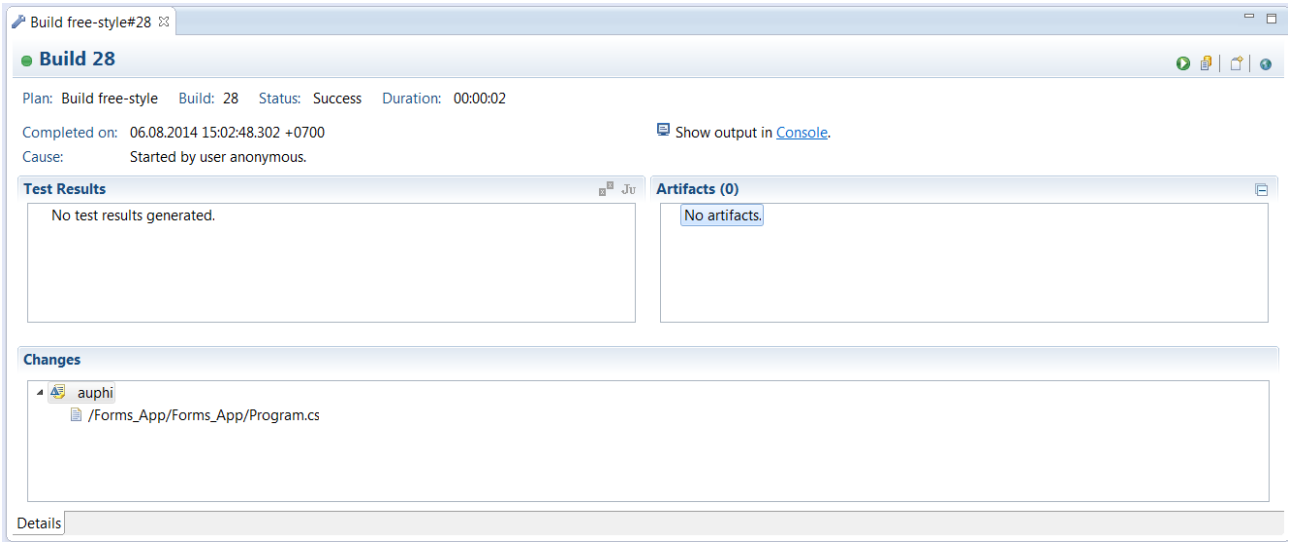
- On the 'Builds' view, right click Jenkins job > 'History'



- On the 'History' view, double click to the build which one you need to show

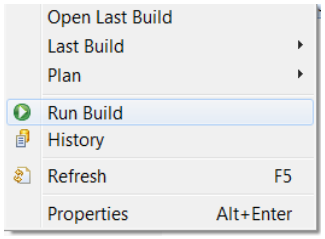


b. Second way (just open the latest builds plan): On the ‘Builds’ view, double clicks to the selected Jenkins job or right click to the selected Jenkins job > select ‘Open Last Build’. The ‘Builds Editor’ will be opened the latest build plan.



3. Run Build

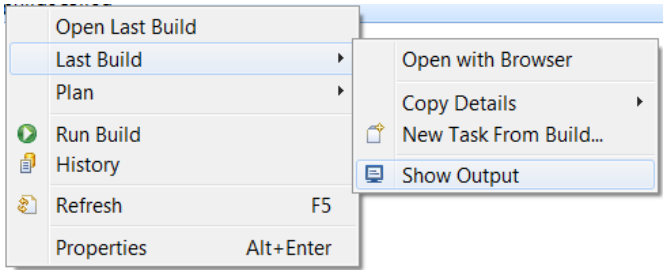
On the ‘Builds’ view, right click Jenkins job > select ‘Run Build’ > the ‘Jenkins job’ build is run



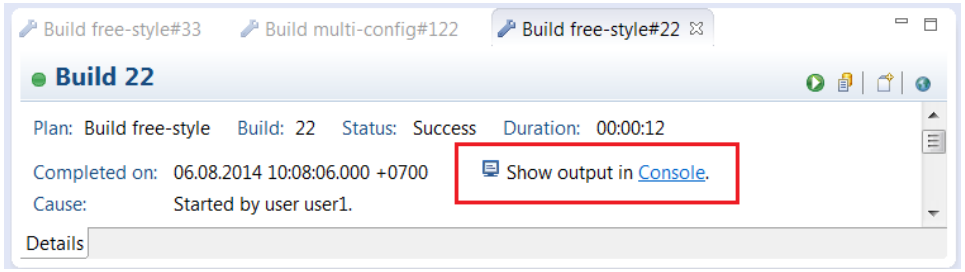
4. Show output

Show output records information of build process. To show output:

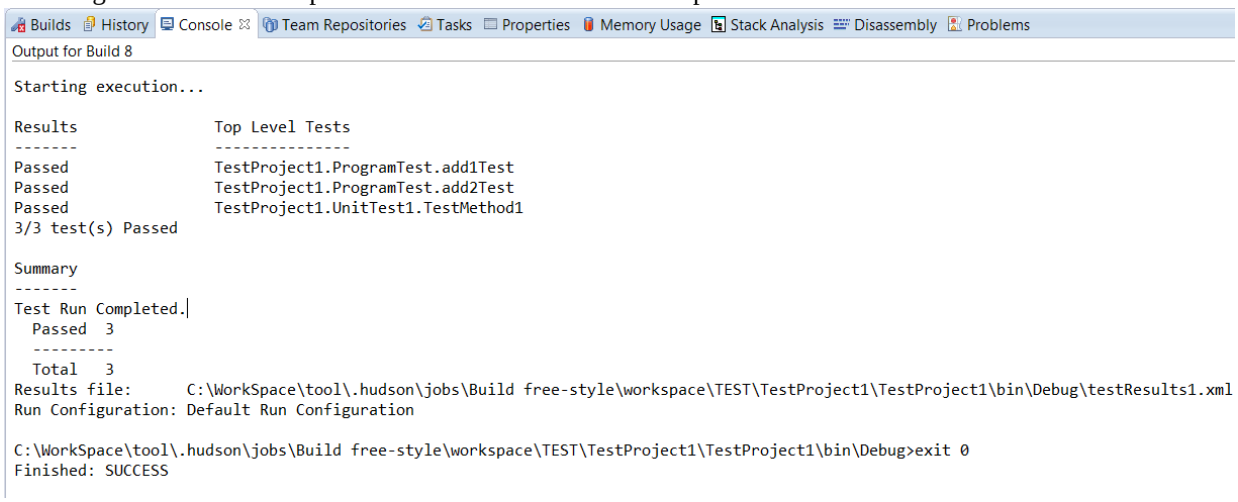
a. First way: on the ‘Builds’ view, right click Jenkins job > select ‘Last Build’ > select ‘Show output’



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



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

http://www.tasktop.com/connectors/hudson-jenkins.php

Eclipse home page URL:

http://eclipse.org

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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.

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