

Testing NuFTA

Construct & Using CTIP Environment for Developer

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Construct Environment For CTIP

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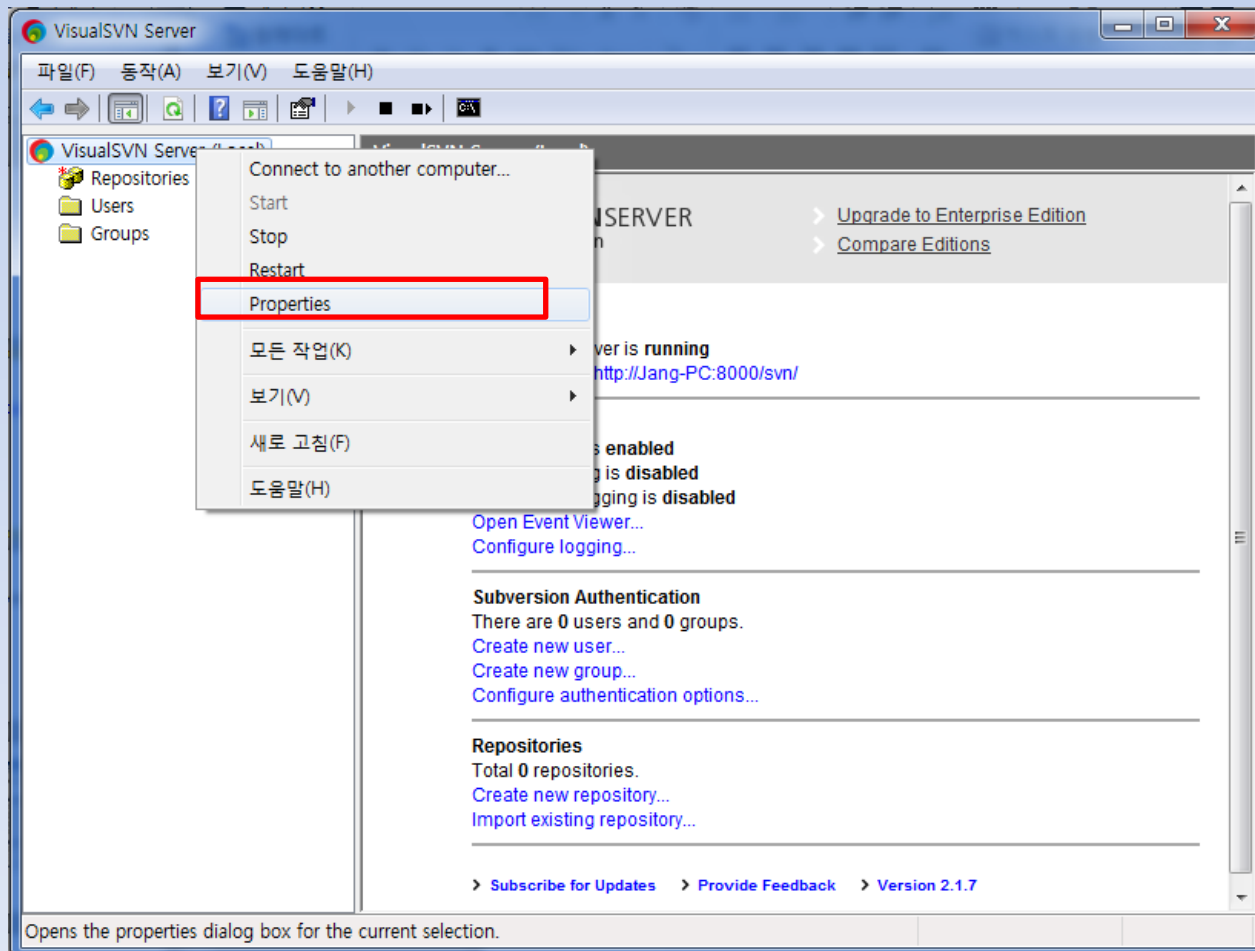
Testing NuSRS_2.1

- What is NuFTA?
- NuFTA Testing Process

Environment For CTIP

- **CI Server - Hudson**
 - **WAS : Tomcat 6.0**
- **CM Tool - VisualSVN (Subversion)**
- **Unit Testing Tool - JUnit**
- **Build Automation Tool - Ant**
- **Requirement Management Tool - JFeature**

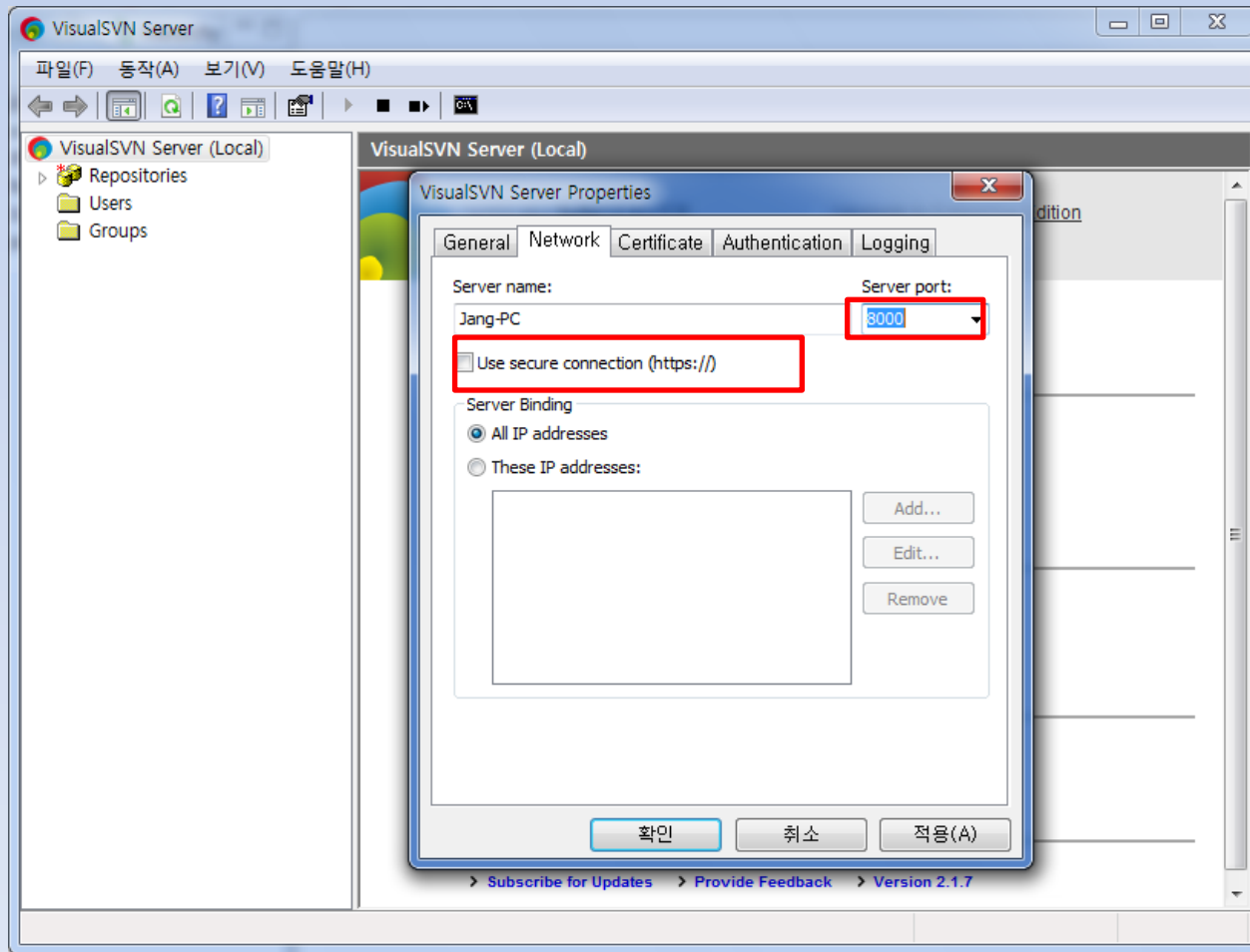
Setting VisualSVN-network



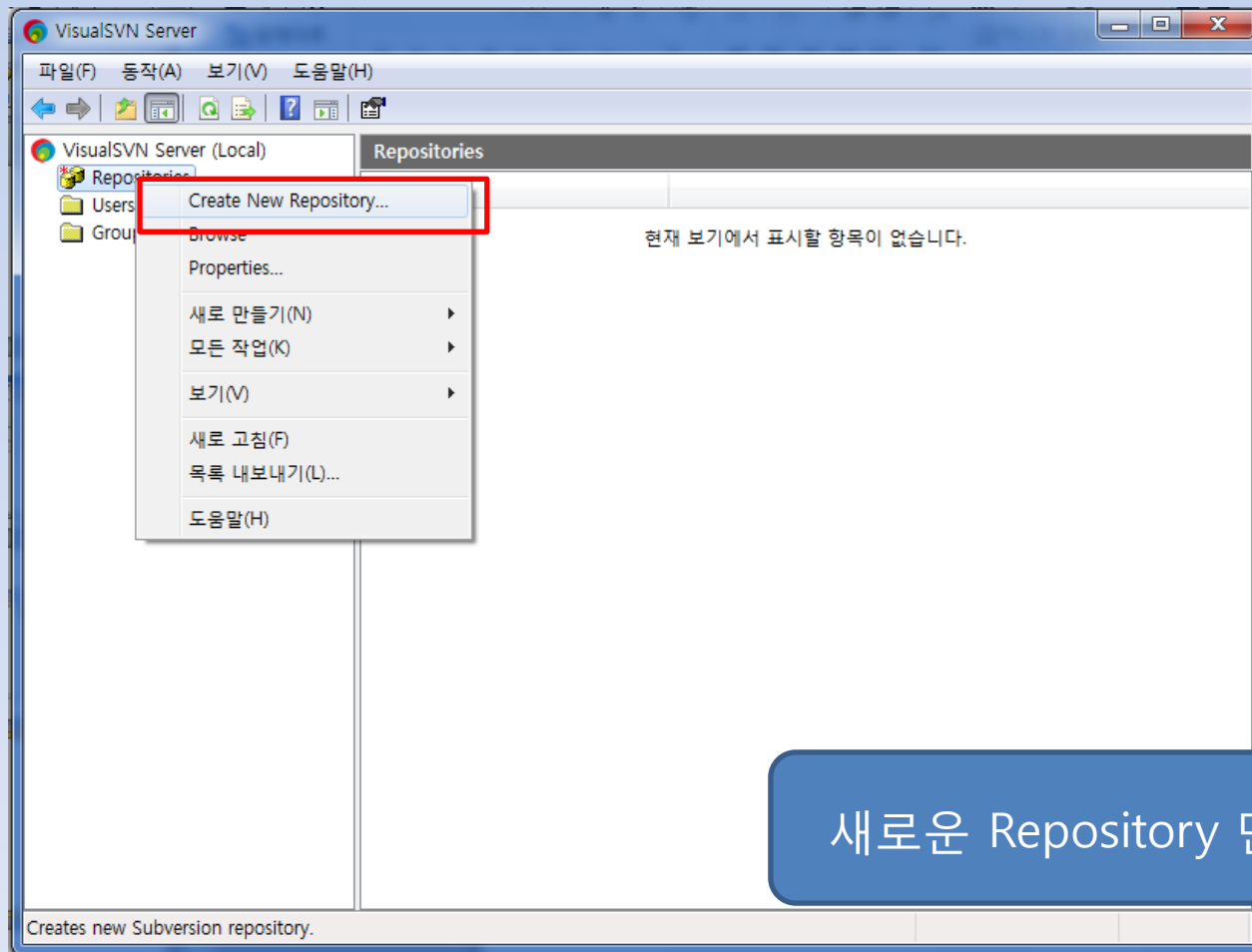
Construct Environment For CTIP

Setting VisualSVN

Setting VisualSVN-network

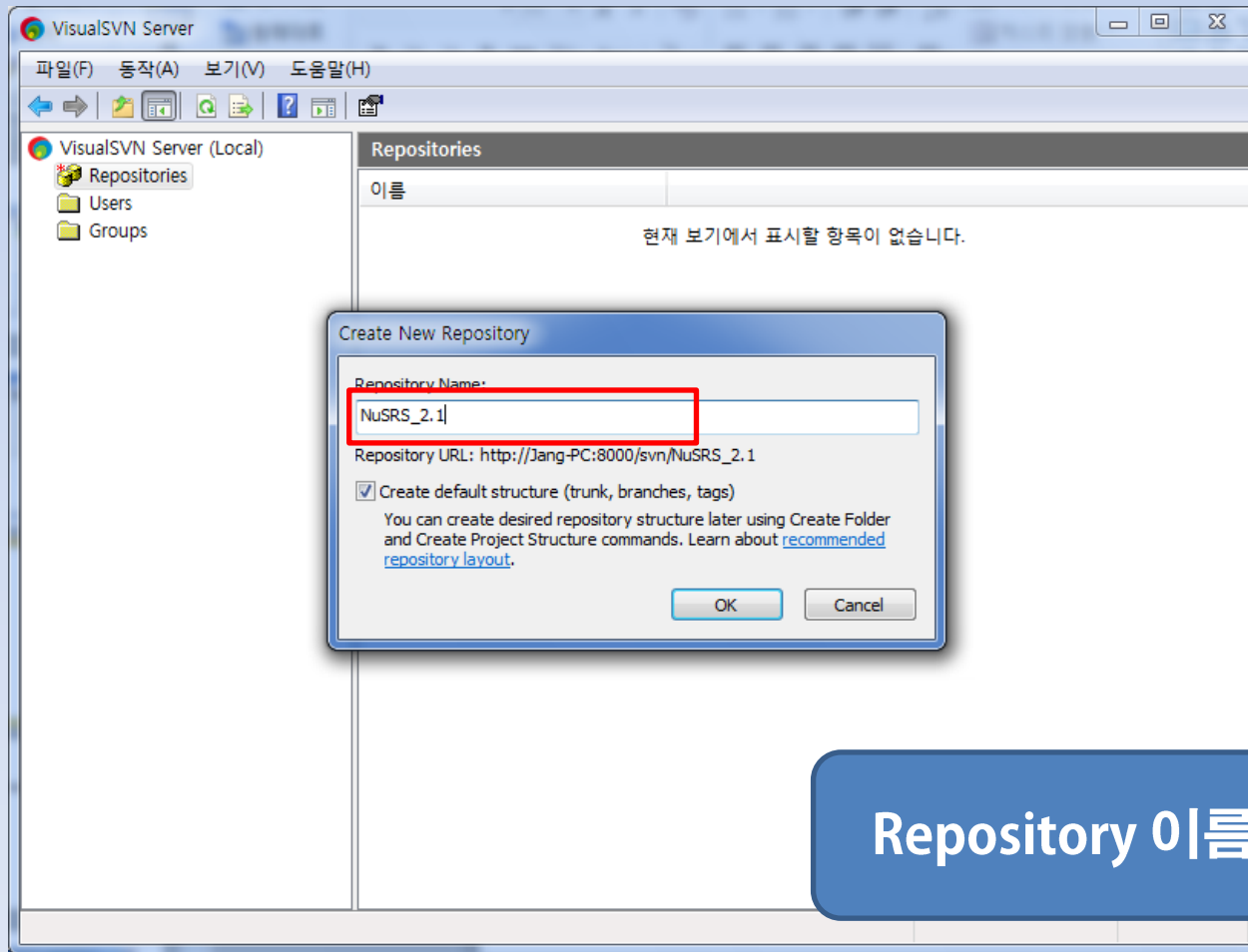


Setting VisualSVN-repository

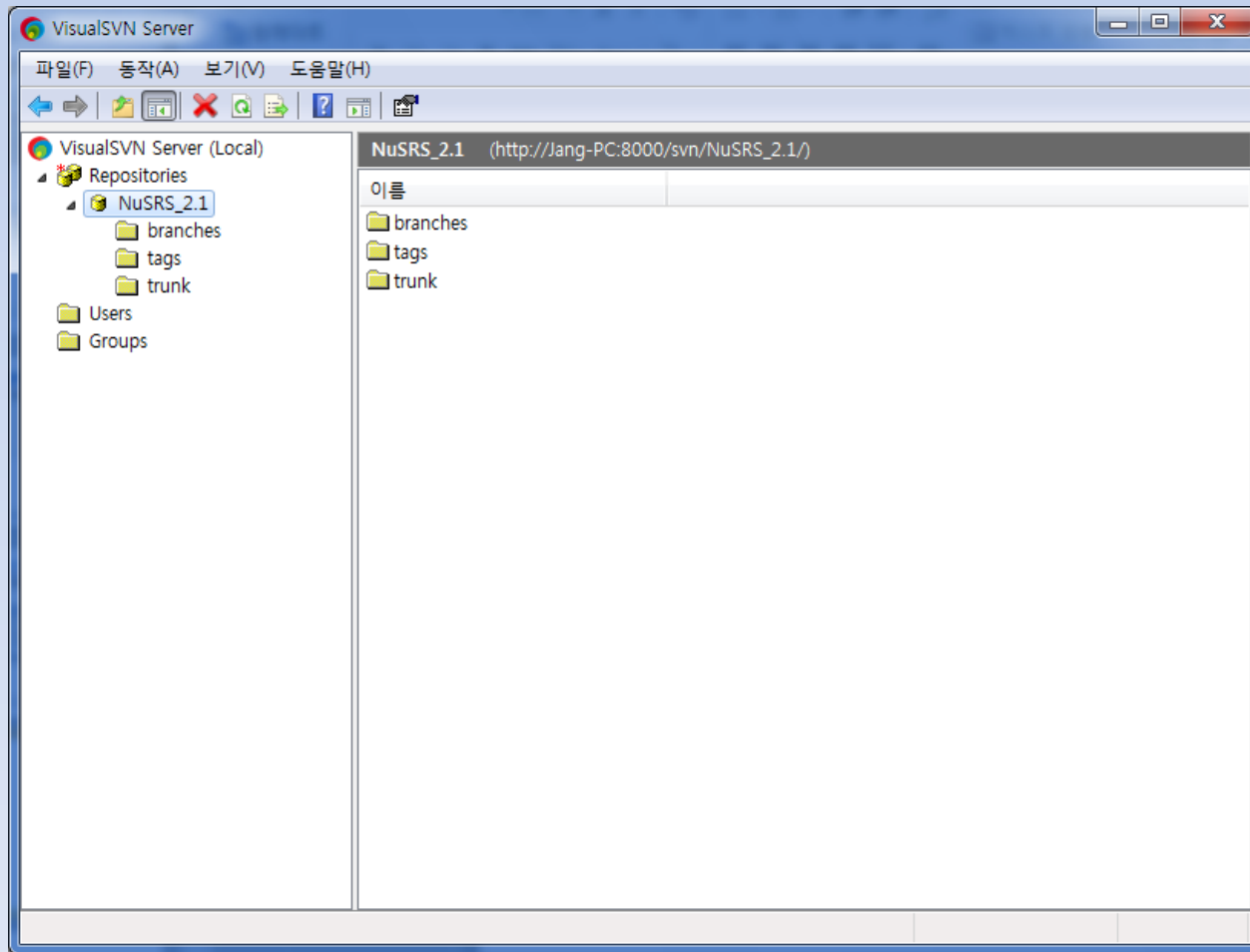


새로운 Repository 만들기

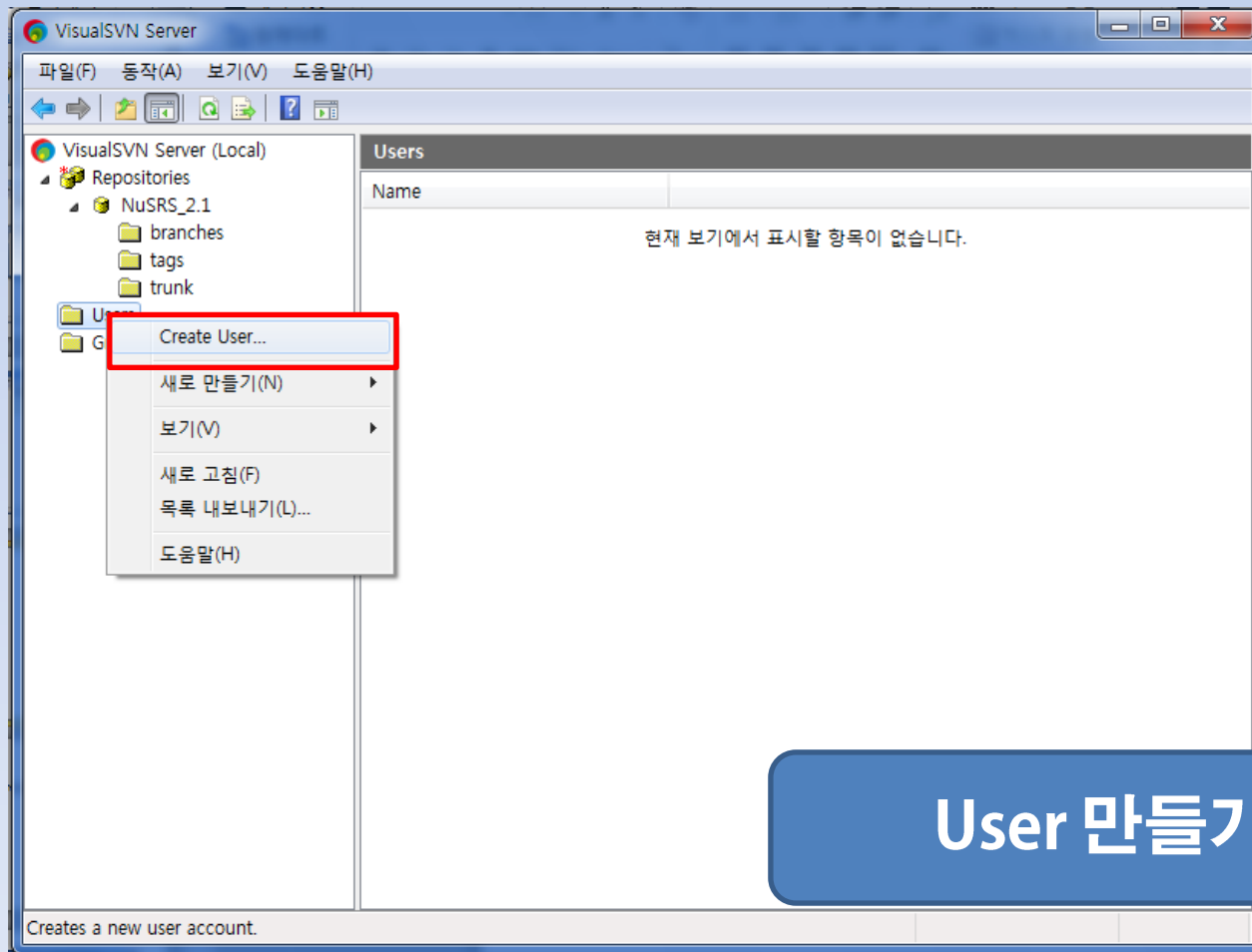
Setting VisualSVN-repository



Setting VisualSVN-repository

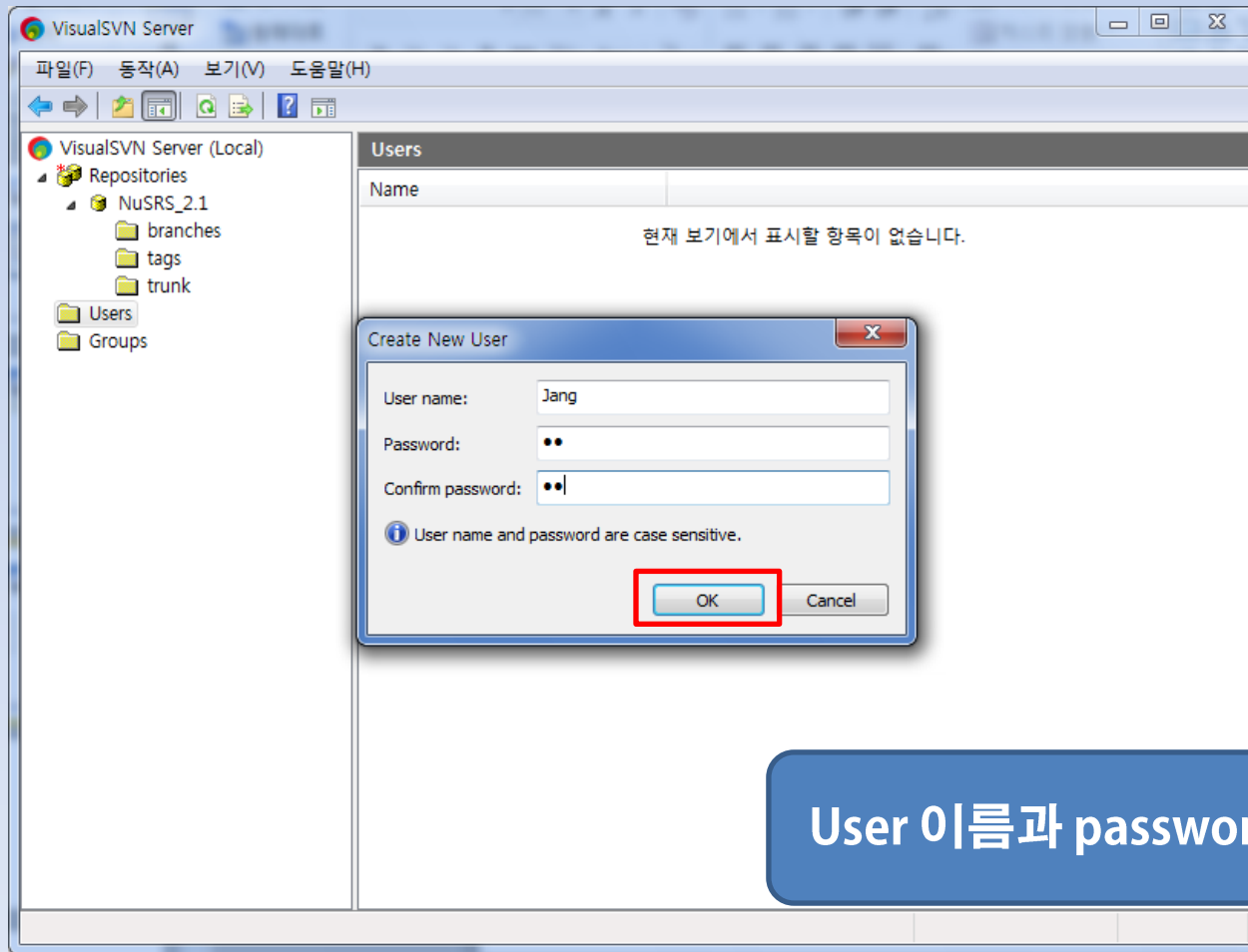


Setting VisualSVN-user



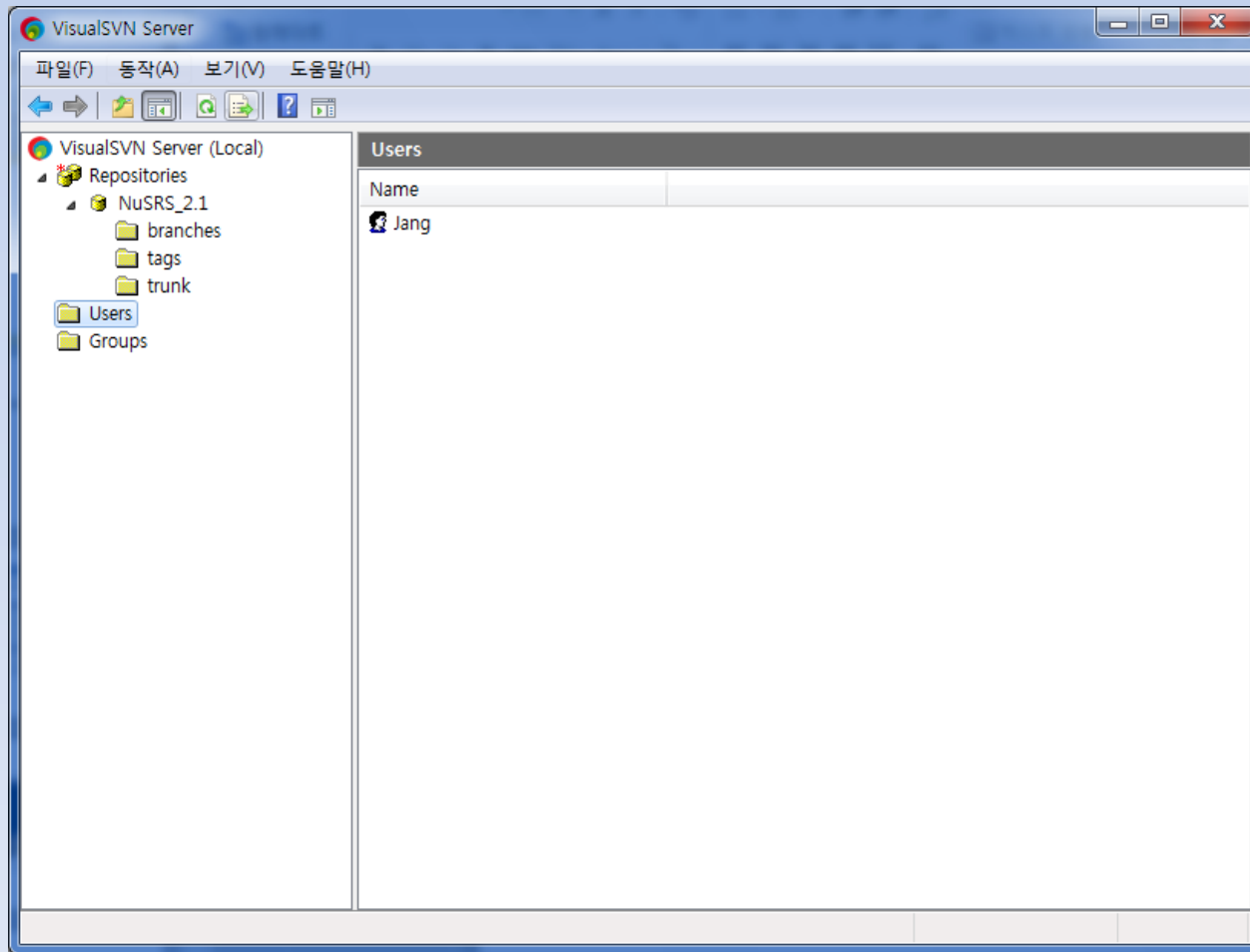
User 만들기

Setting VisualSVN-user

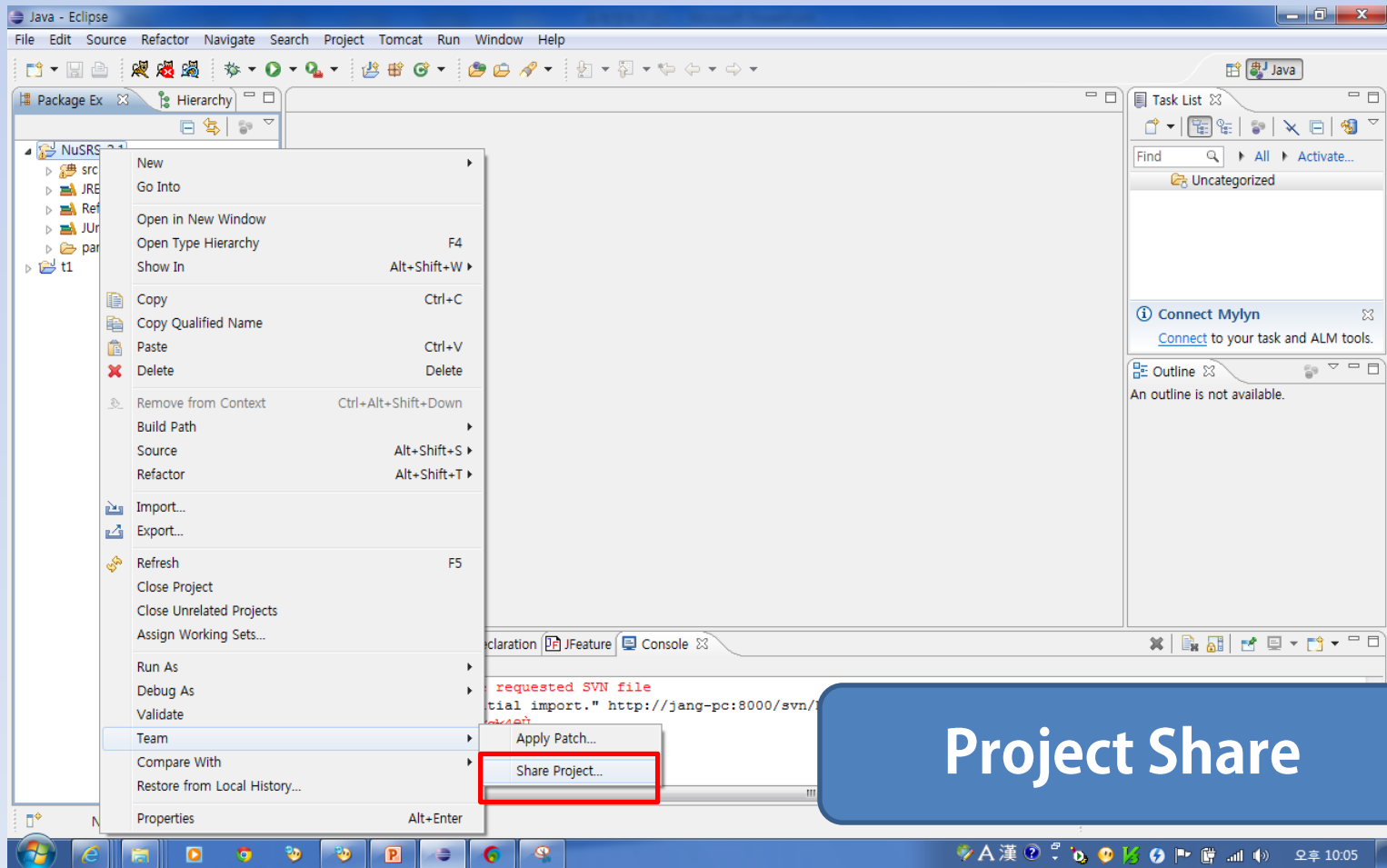


User 이름과 password 설정

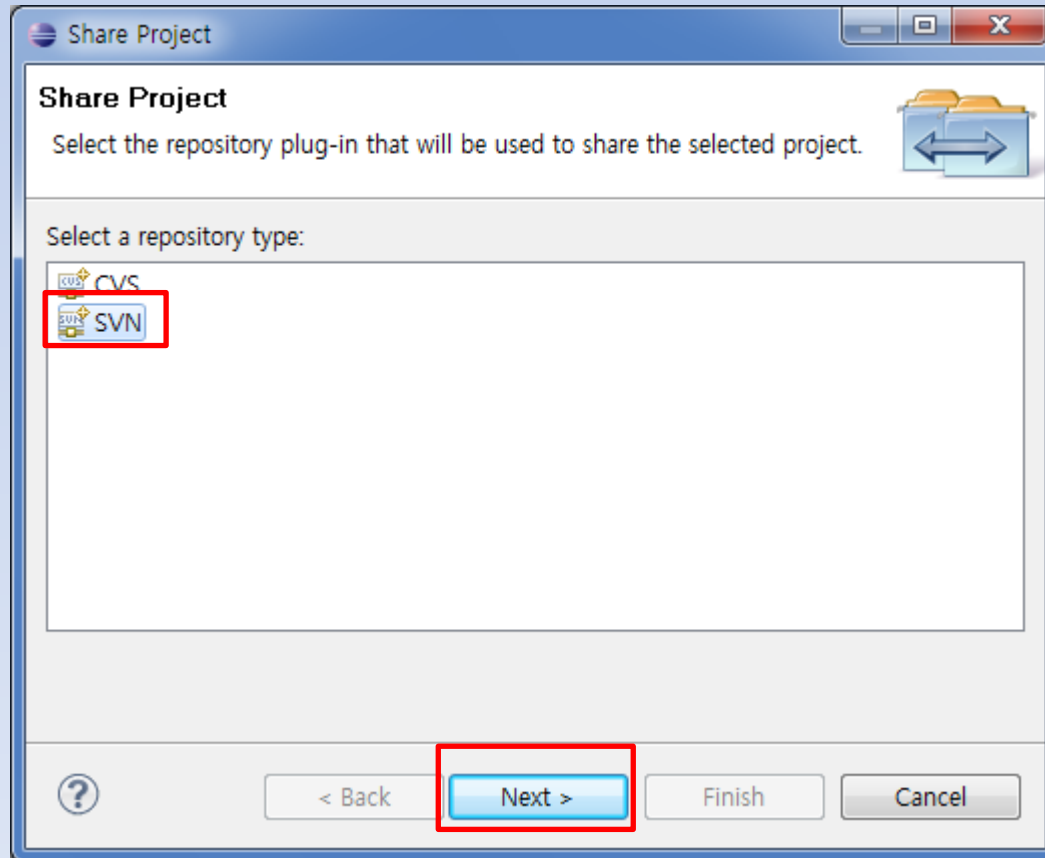
Setting VisualSVN-user



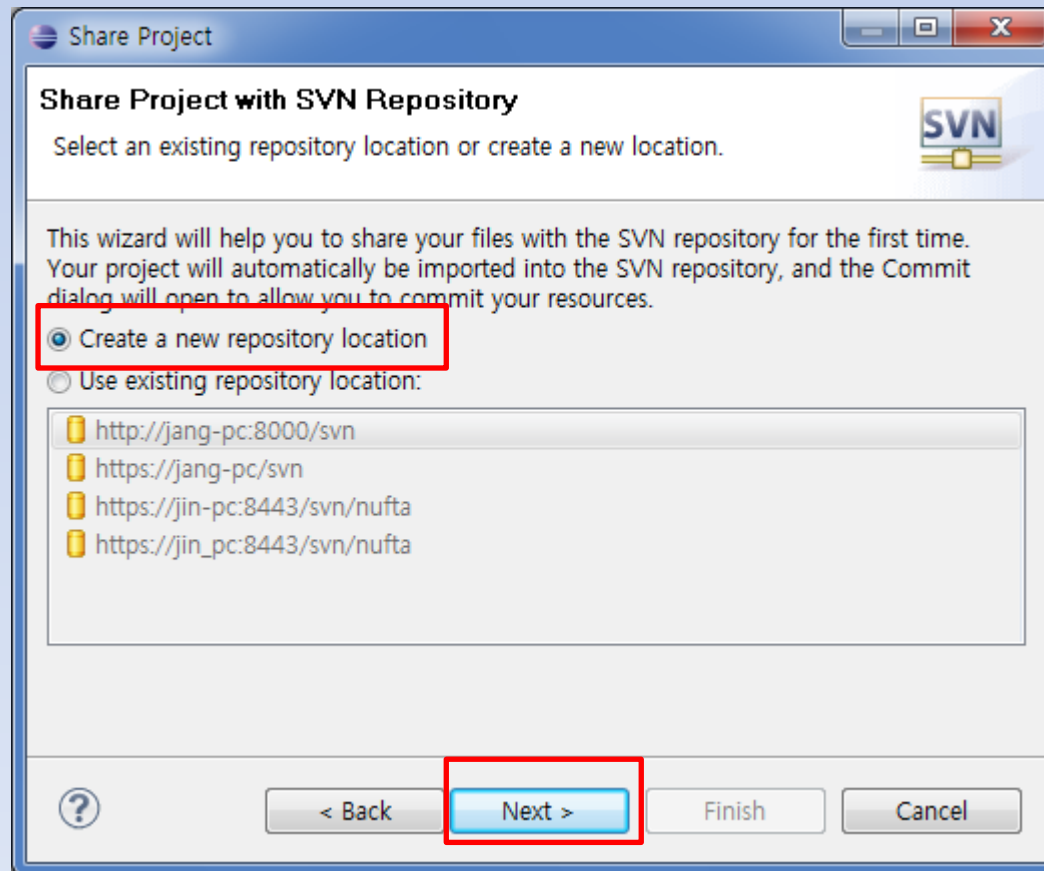
Setting VisualSVN



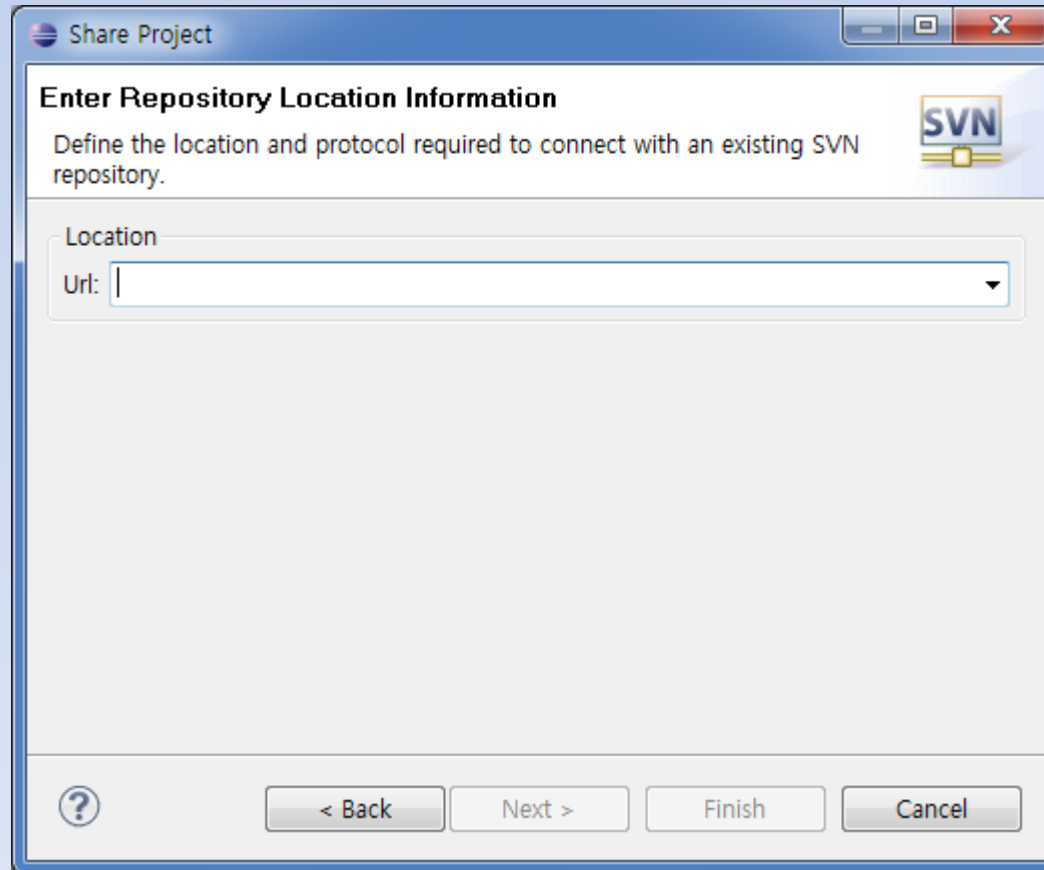
Setting VisualSVN



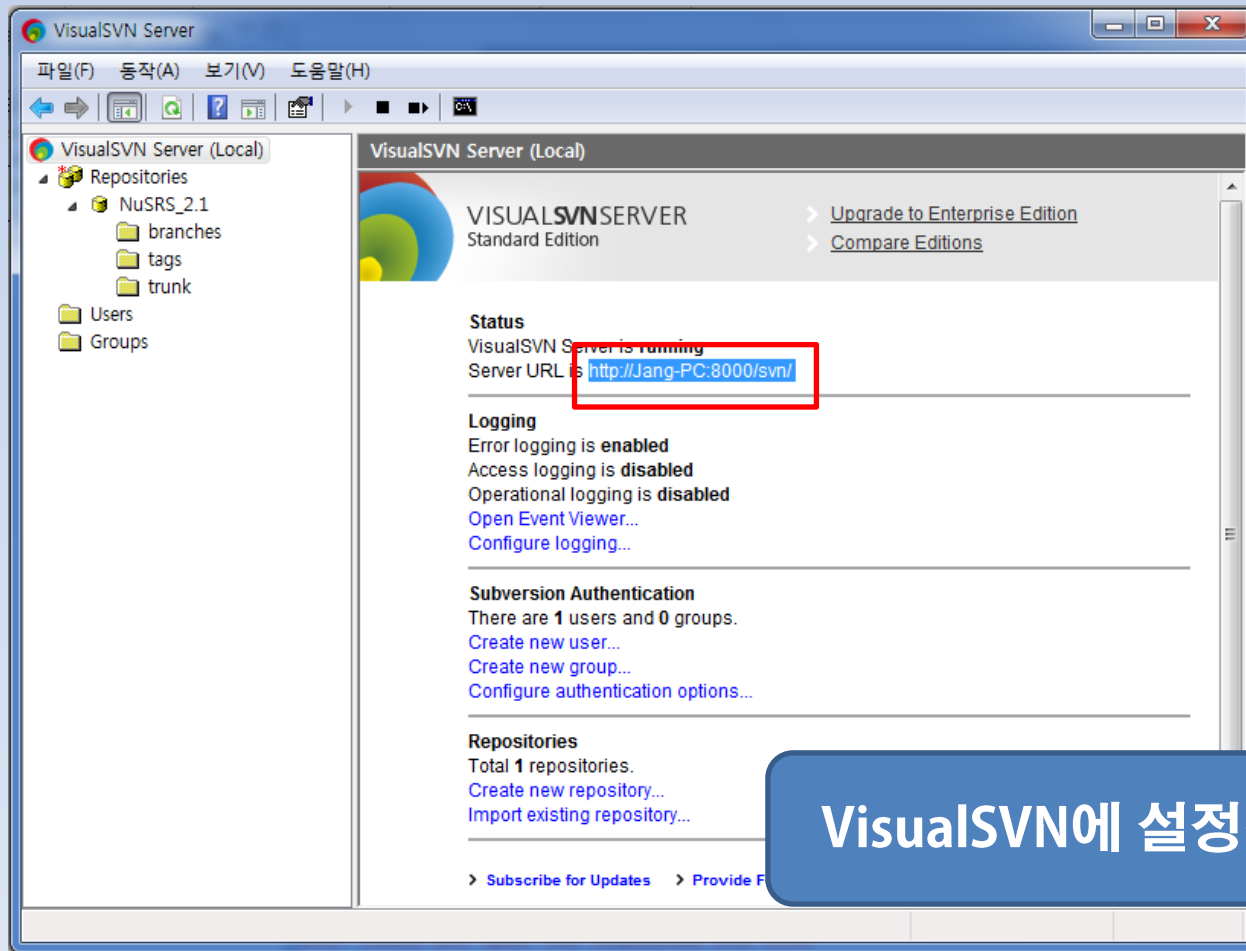
Setting VisualSVN



Setting VisualSVN

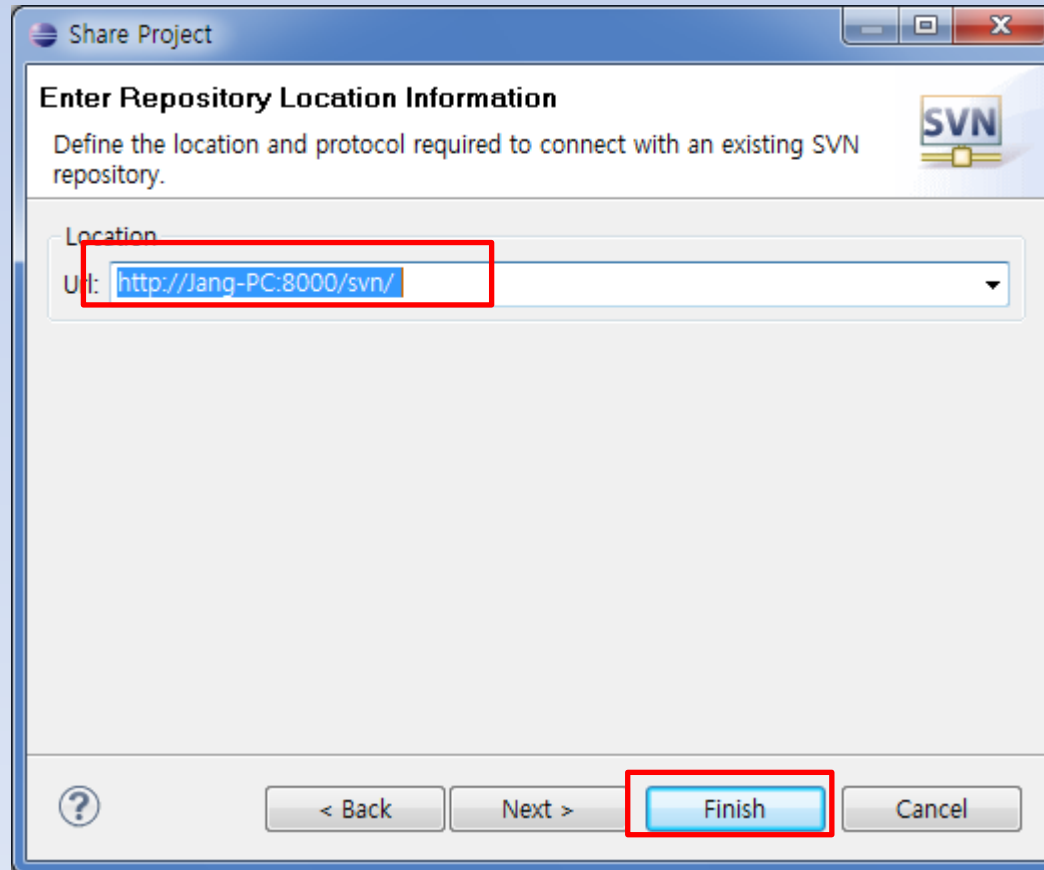


Setting VisualSVN

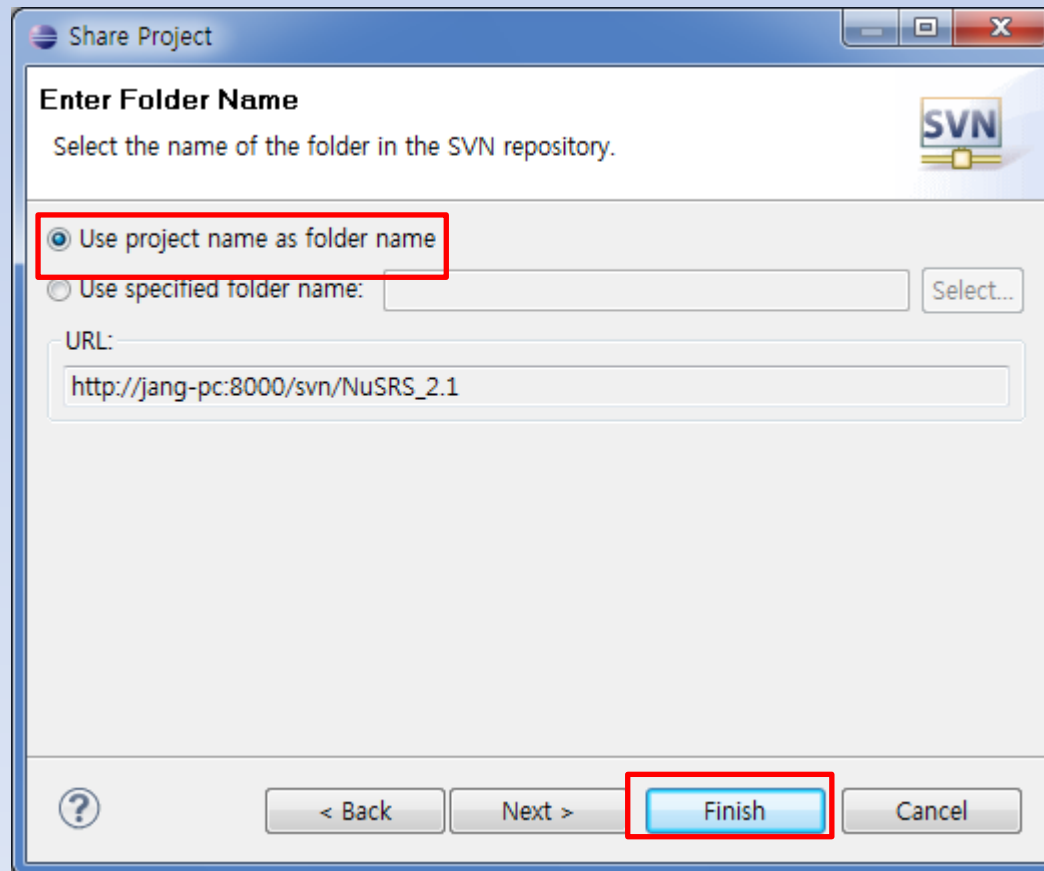


VisualSVN에 설정된 Url

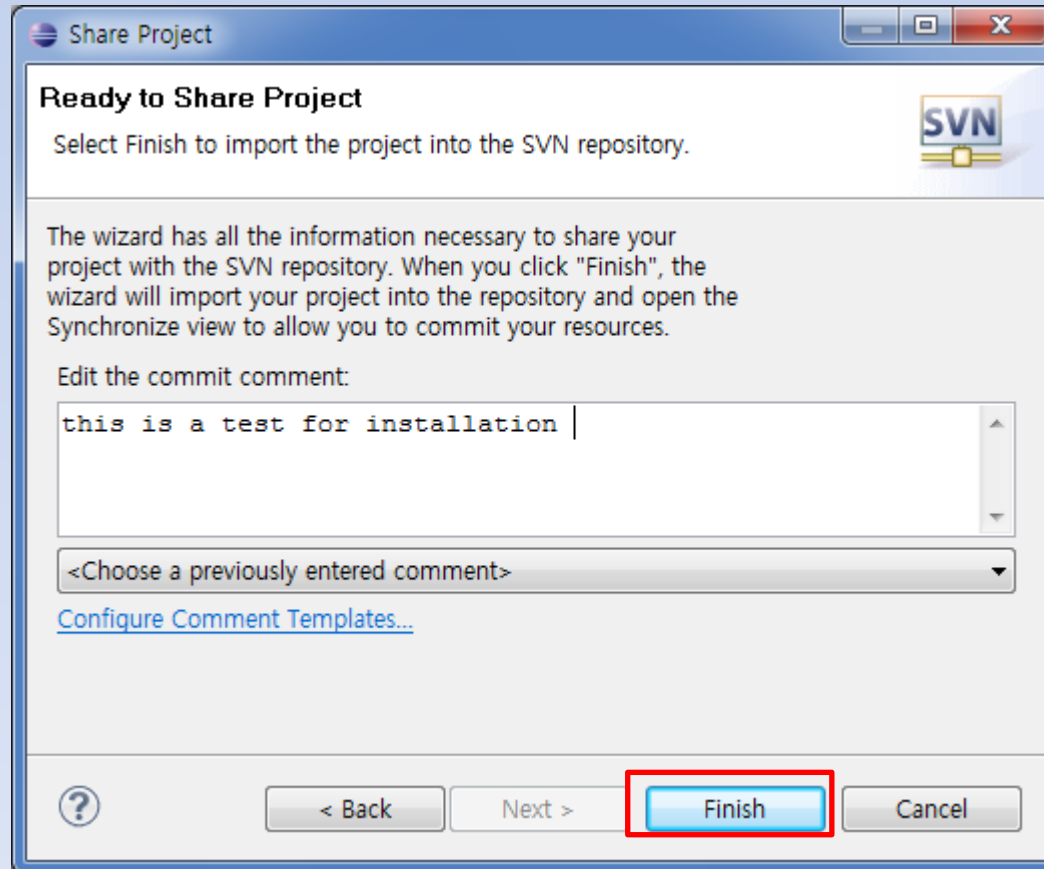
Setting VisualSVN



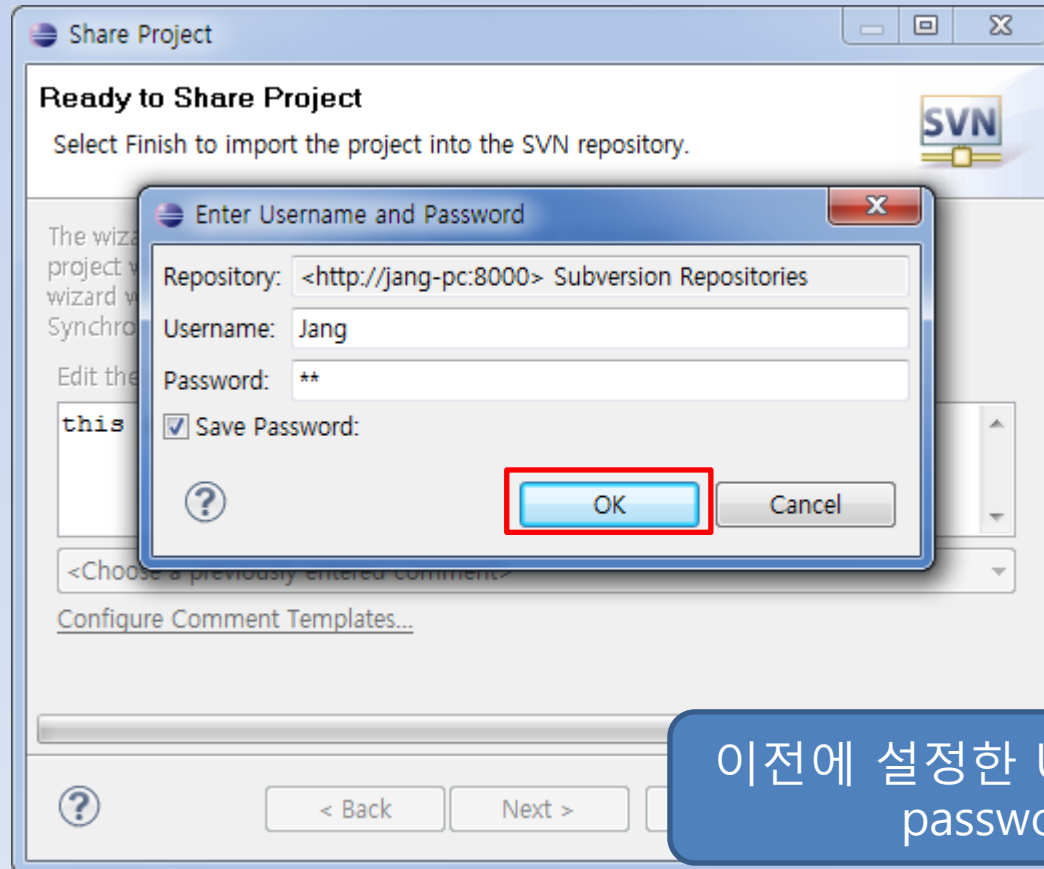
Setting VisualSVN



Setting VisualSVN

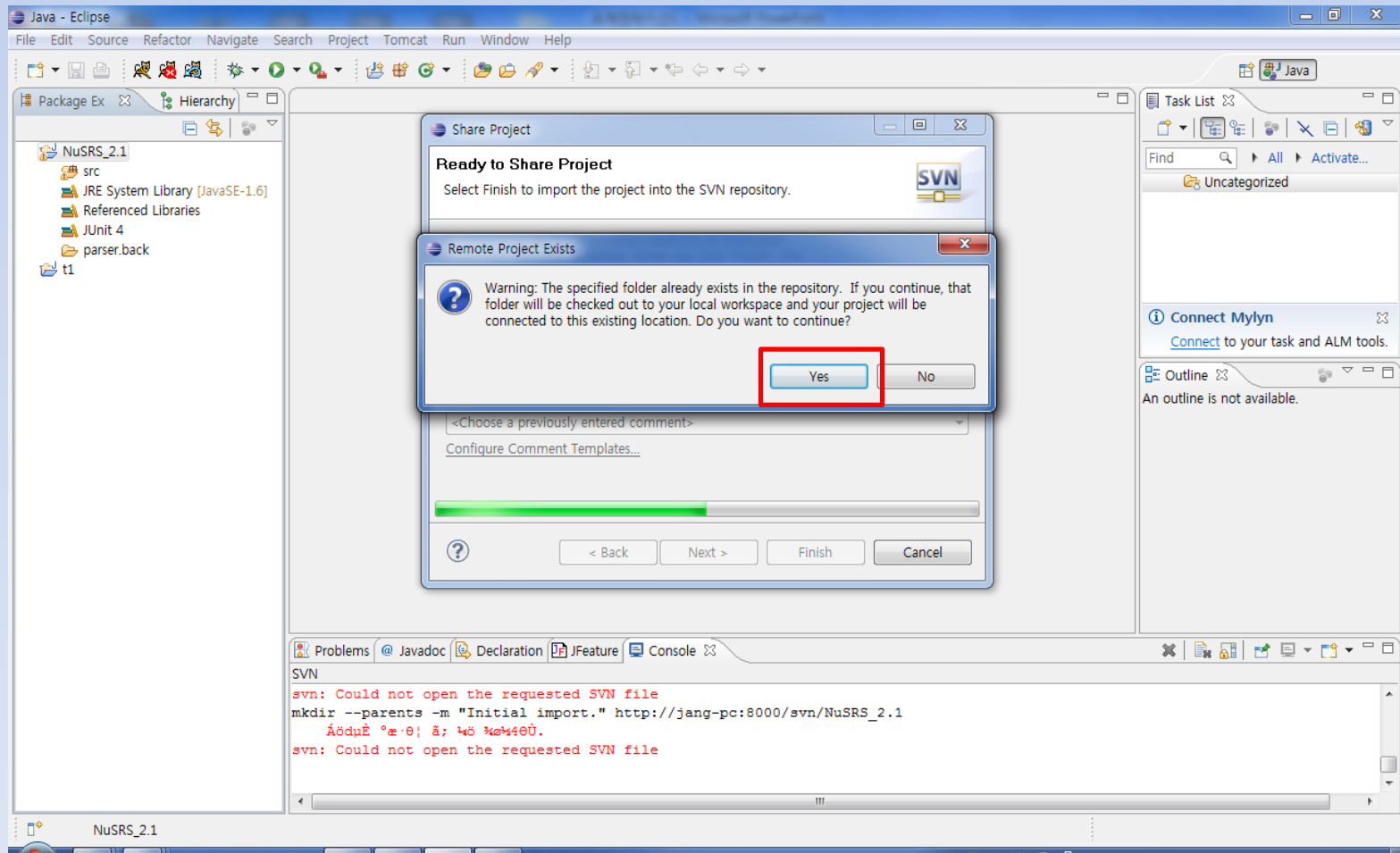


Setting VisualSVN

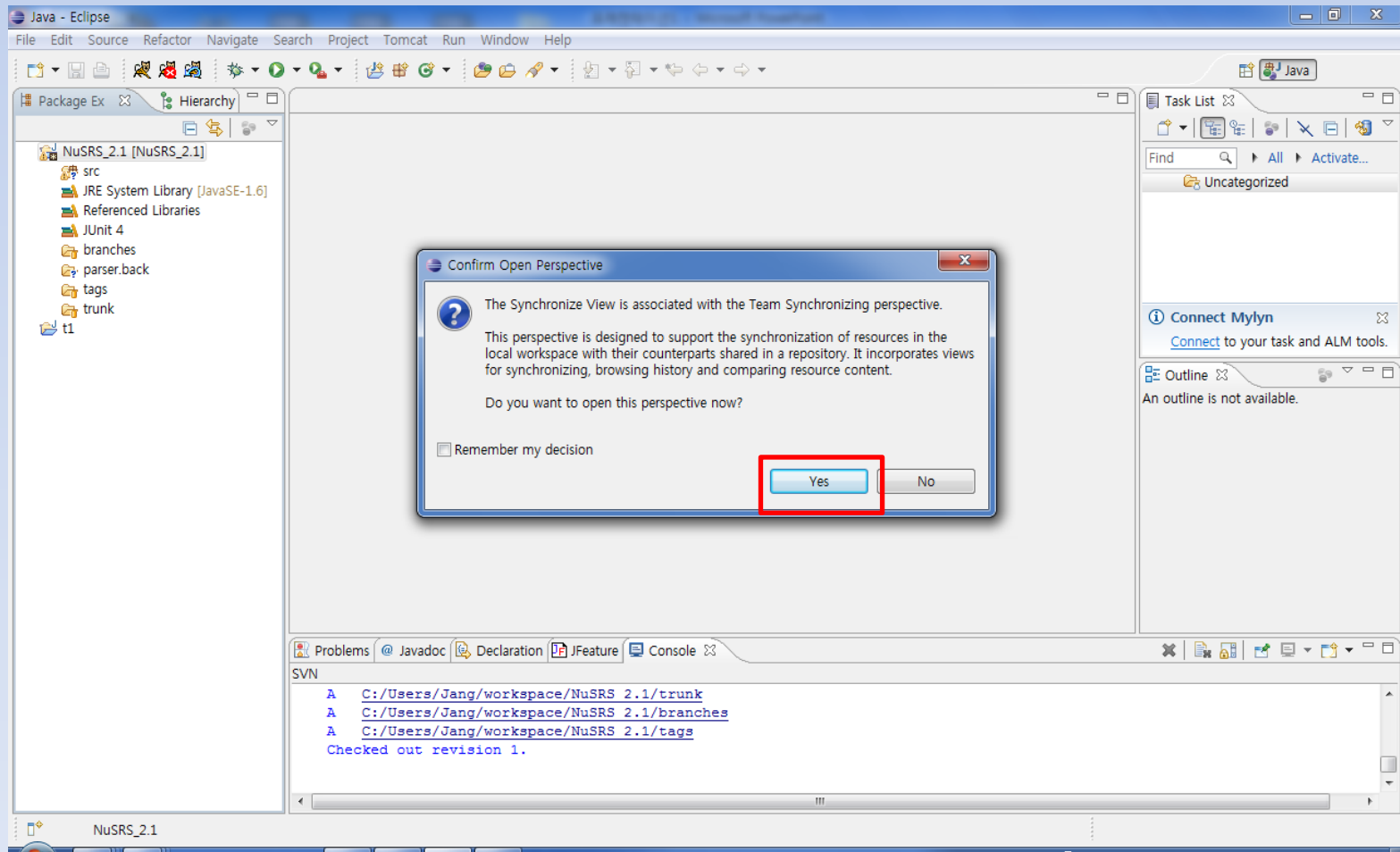


이전에 설정한 User 이름과 password

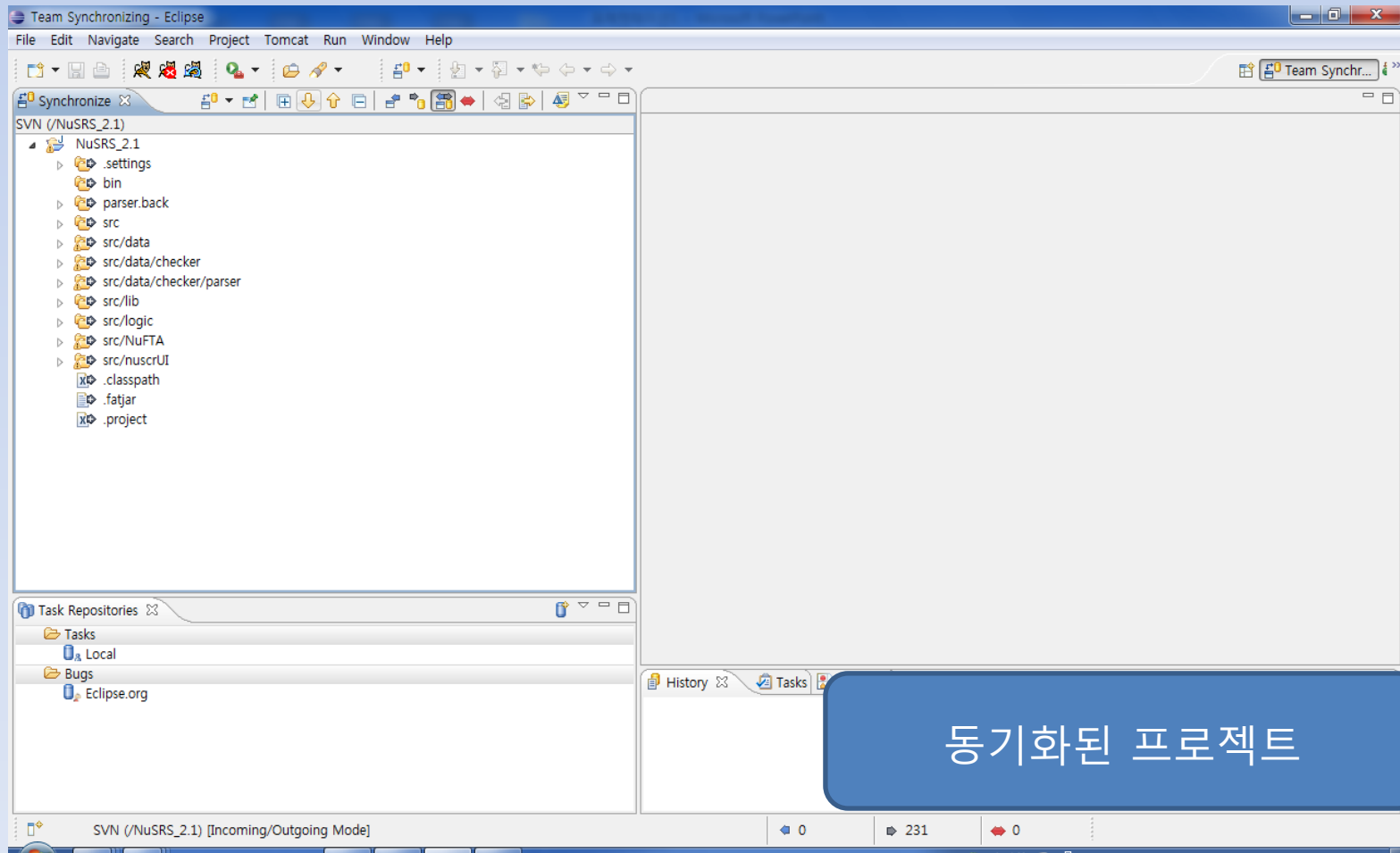
Setting VisualSVN



Setting VisualSVN



Setting VisualSVN



Construct Environment For CTIP

TomCat Installation

TomCat Installation

http://tomcat.apache.org/

Apache Tomcat

The Apache Software Foundation
http://www.apache.org/

Search the Site Search Site

Apache Tomcat

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- [Taglibs](#)

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- [Tomcat 7.0](#)
- [Tomcat 6.0](#)
- [Tomcat 5.5](#)
- [Tomcat Connectors](#)
- [Tomcat Native](#)
- [Archives](#)

Documentation

- [Tomcat 7.0](#)
- [Tomcat 6.0](#)
- [Tomcat 5.5](#)
- [Tomcat Connectors](#)
- [Tomcat Native](#)
- [Wiki](#)
- [Migration Guide](#)

Tomcat 7.0.12 Released

2011-04-06

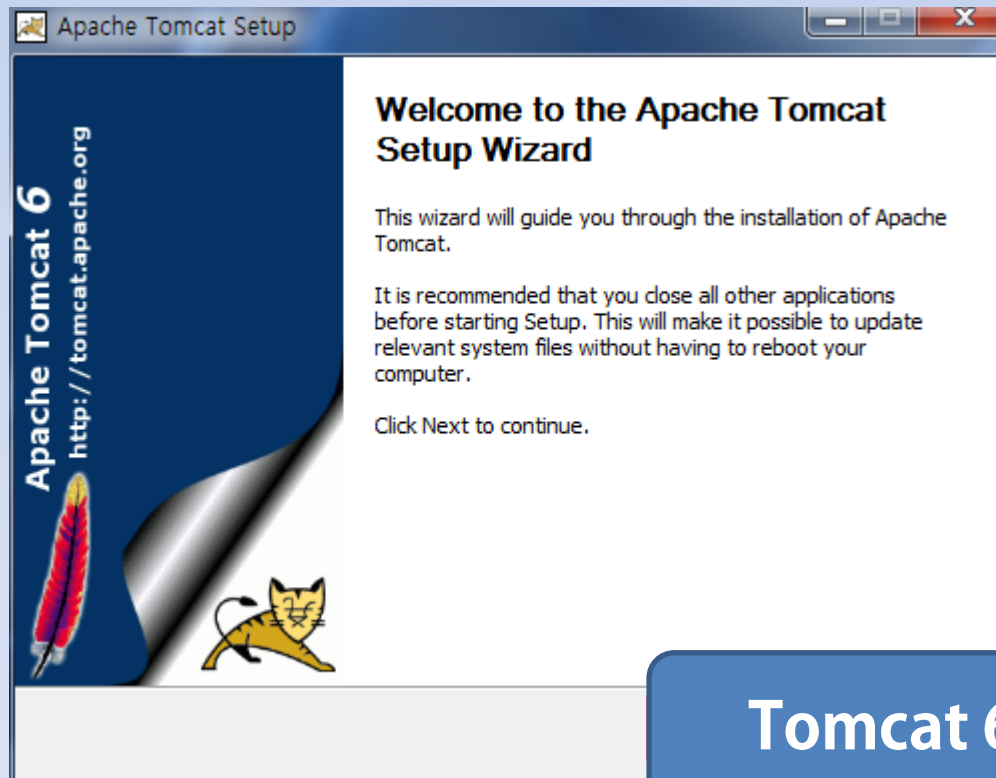
The Apache Tomcat Project is proud to announce the release of Tomcat 7.0.12. This release includes bug fixes, security fixes and the following new features compared to 7.0.11:

- initial support for SPNEGO/Kerberos authentication (also known as GSSAPI)
- provide a new configuration option to define a close mechanism for connections
- optional support for pre-emptive authentication.

Full details of these changes, and all the other changes, are available in the [Tomcat 7 changelog](#).

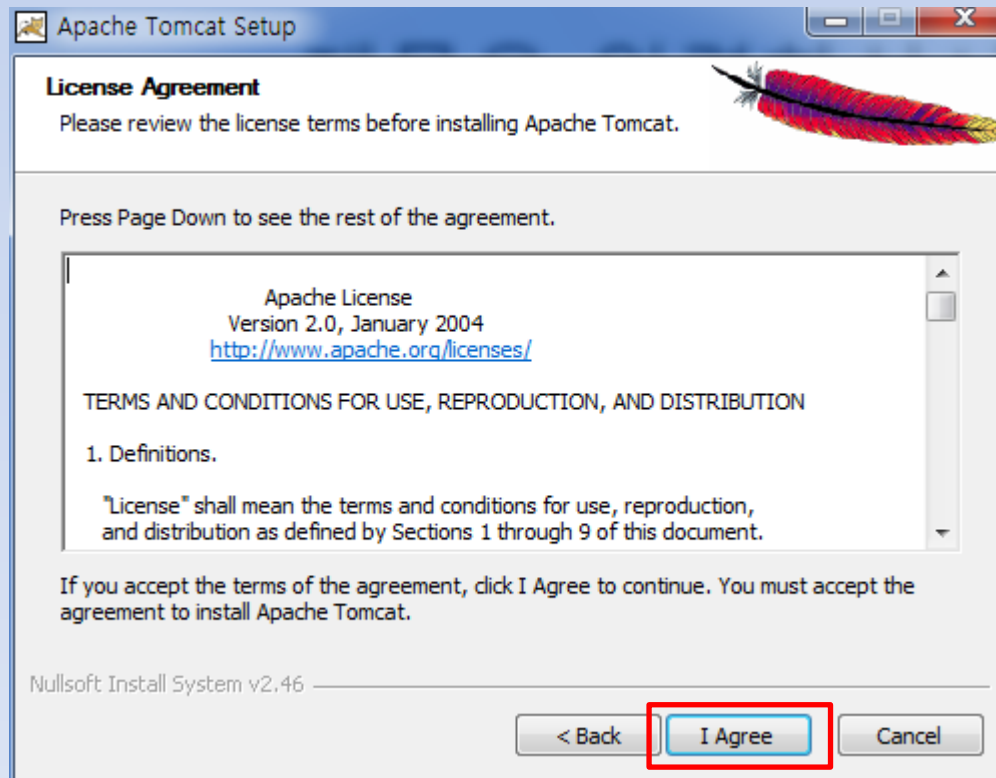
<http://tomcat.apache.org/>
접속 & 다운로드

TomCat Installation

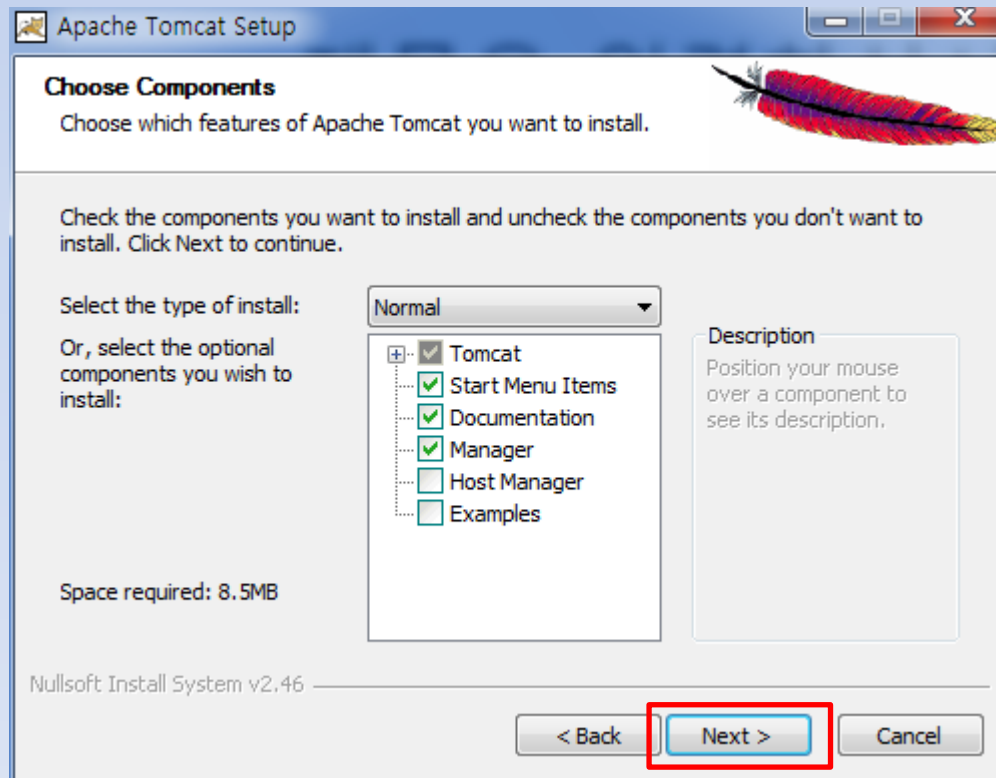


Tomcat 6.0 설치

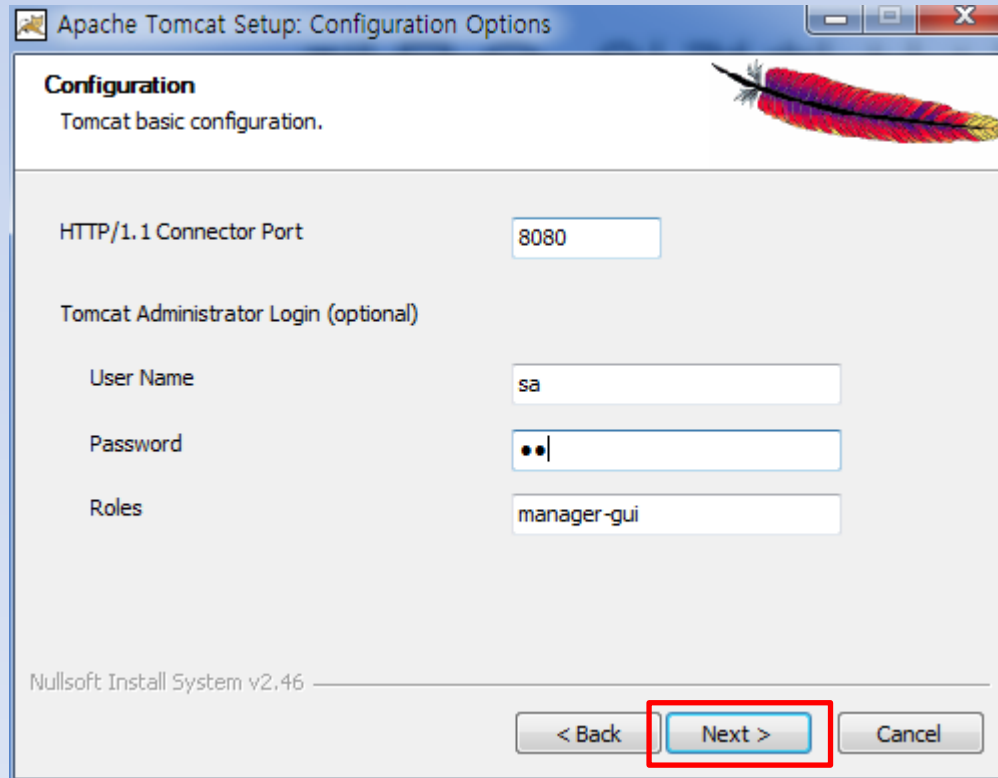
TomCat Installation



TomCat Installation



TomCat Installation



Apache Tomcat Setup: Configuration Options

Configuration
Tomcat basic configuration.

HTTP/1.1 Connector Port: 8080

Tomcat Administrator Login (optional)

User Name: sa

Password: ●●

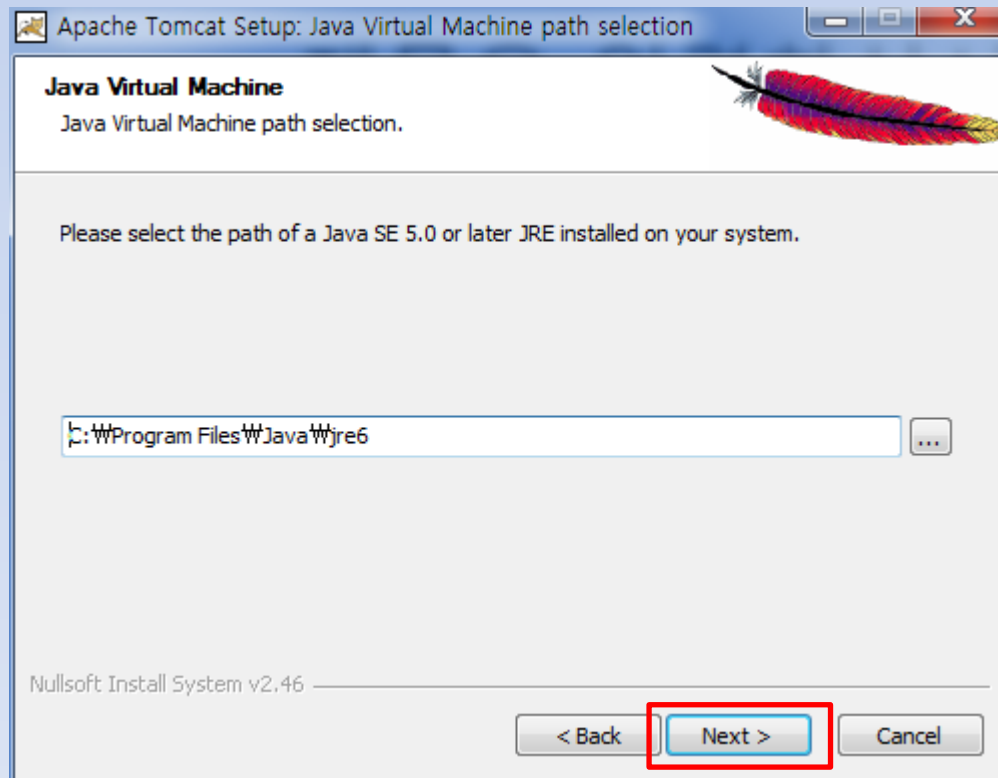
Roles: manager-gui

Nullsoft Install System v2.46

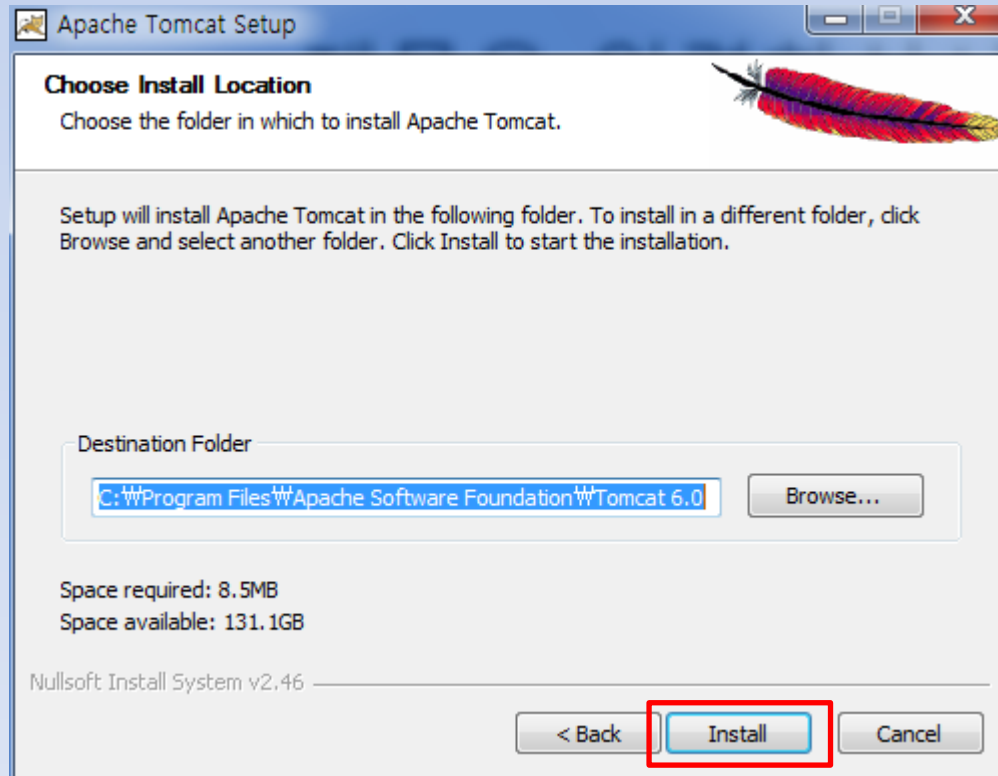
< Back **Next >** Cancel

User 이름 과 password 설정

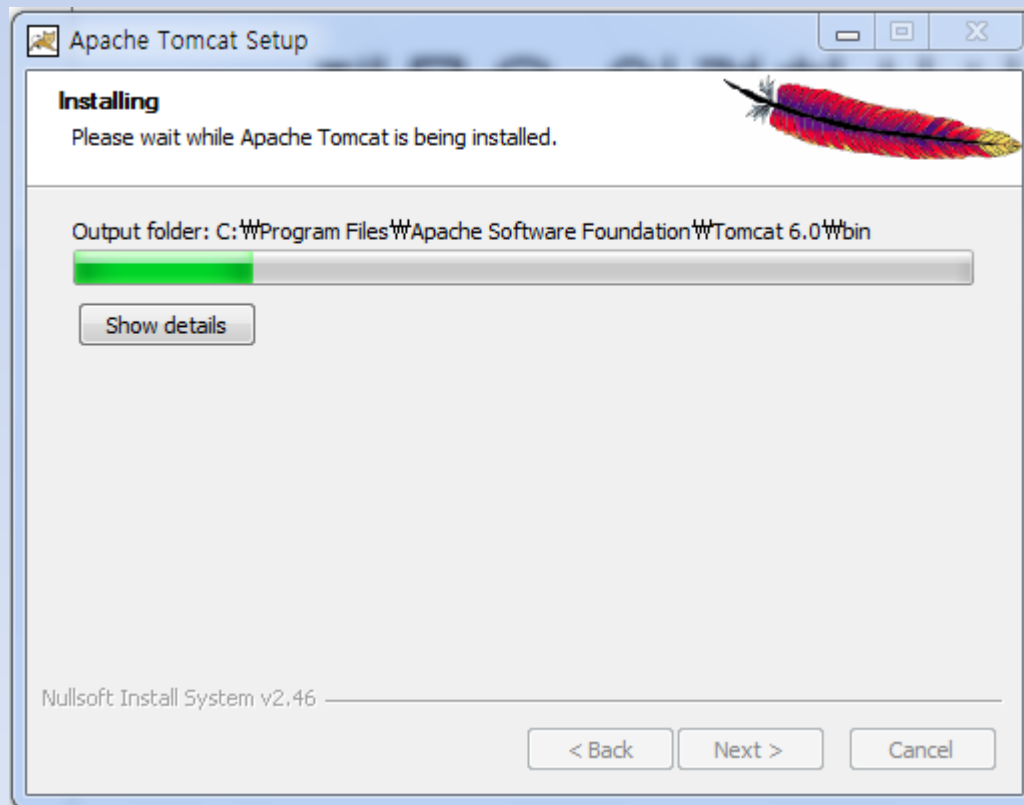
TomCat Installation



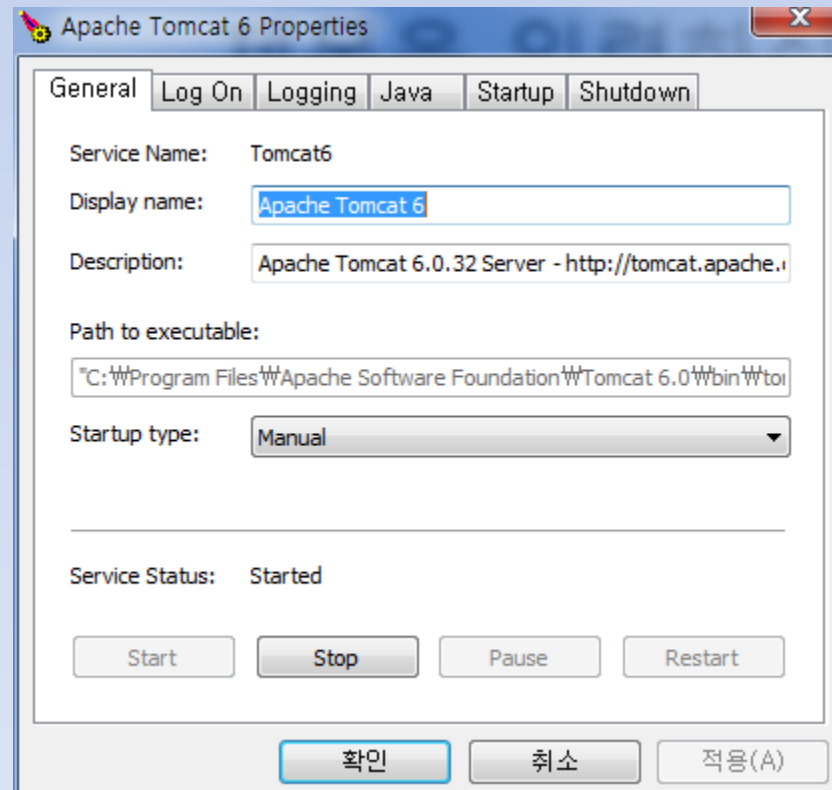
TomCat Installation



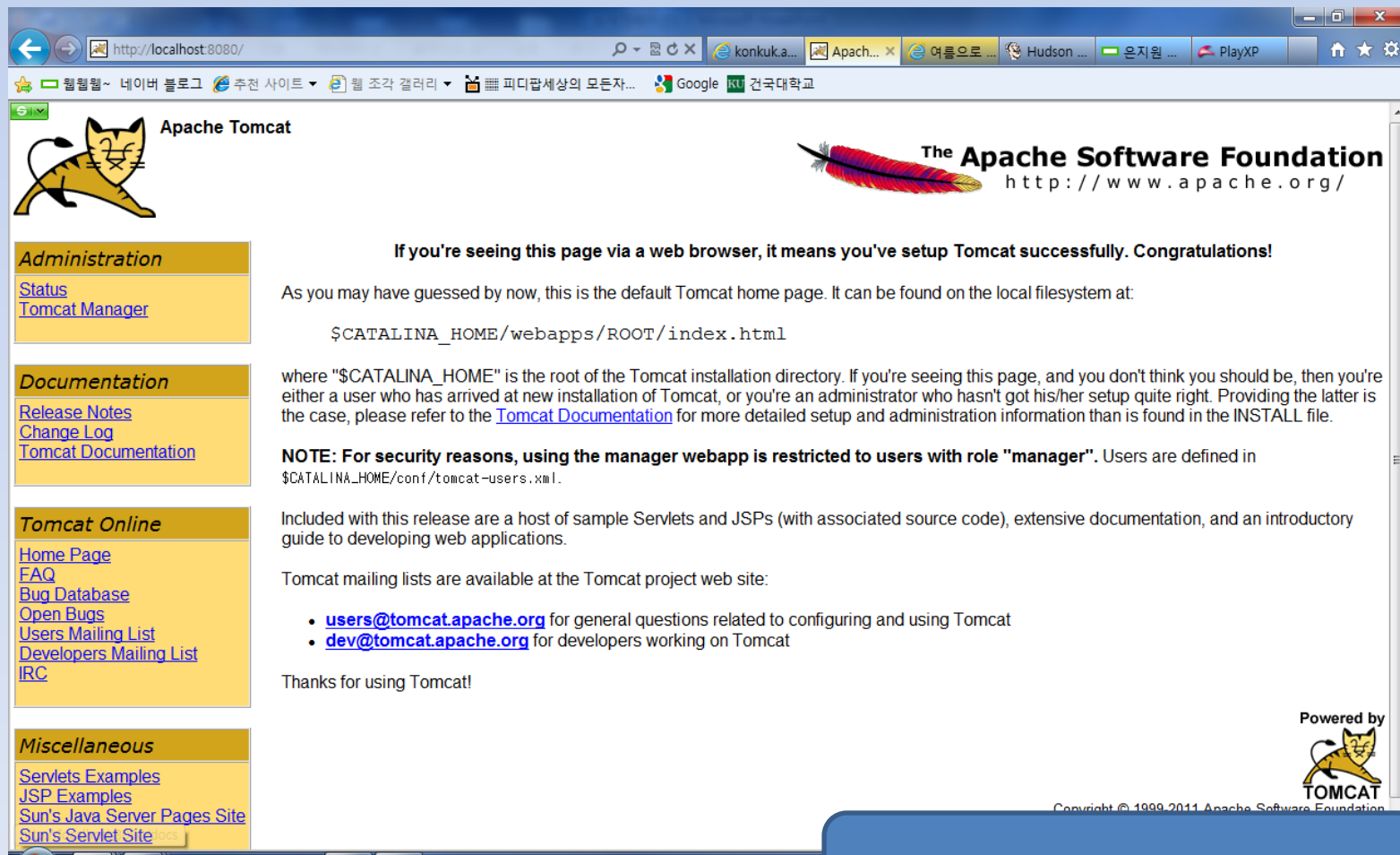
TomCat Installation



TomCat Installation



TomCat Installation



Apache Tomcat

The Apache Software Foundation
<http://www.apache.org/>

If you're seeing this page via a web browser, it means you've setup Tomcat successfully. Congratulations!

As you may have guessed by now, this is the default Tomcat home page. It can be found on the local filesystem at:

```
$CATALINA_HOME/webapps/ROOT/index.html
```

where "\$CATALINA_HOME" is the root of the Tomcat installation directory. If you're seeing this page, and you don't think you should be, then you're either a user who has arrived at new installation of Tomcat, or you're an administrator who hasn't got his/her setup quite right. Providing the latter is the case, please refer to the [Tomcat Documentation](#) for more detailed setup and administration information than is found in the INSTALL file.


NOTE: For security reasons, using the manager webapp is restricted to users with role "manager". Users are defined in `$CATALINA_HOME/conf/tomcat-users.xml`.

Included with this release are a host of sample Servlets and JSPs (with associated source code), extensive documentation, and an introductory guide to developing web applications.

Tomcat mailing lists are available at the Tomcat project web site:

- users@tomcat.apache.org for general questions related to configuring and using Tomcat
- dev@tomcat.apache.org for developers working on Tomcat

Thanks for using Tomcat!

Powered by

TOMCAT

Copyright © 1999-2011 Apache Software Foundation

<http://192.168.0.2:8080/>

Hudson Installation

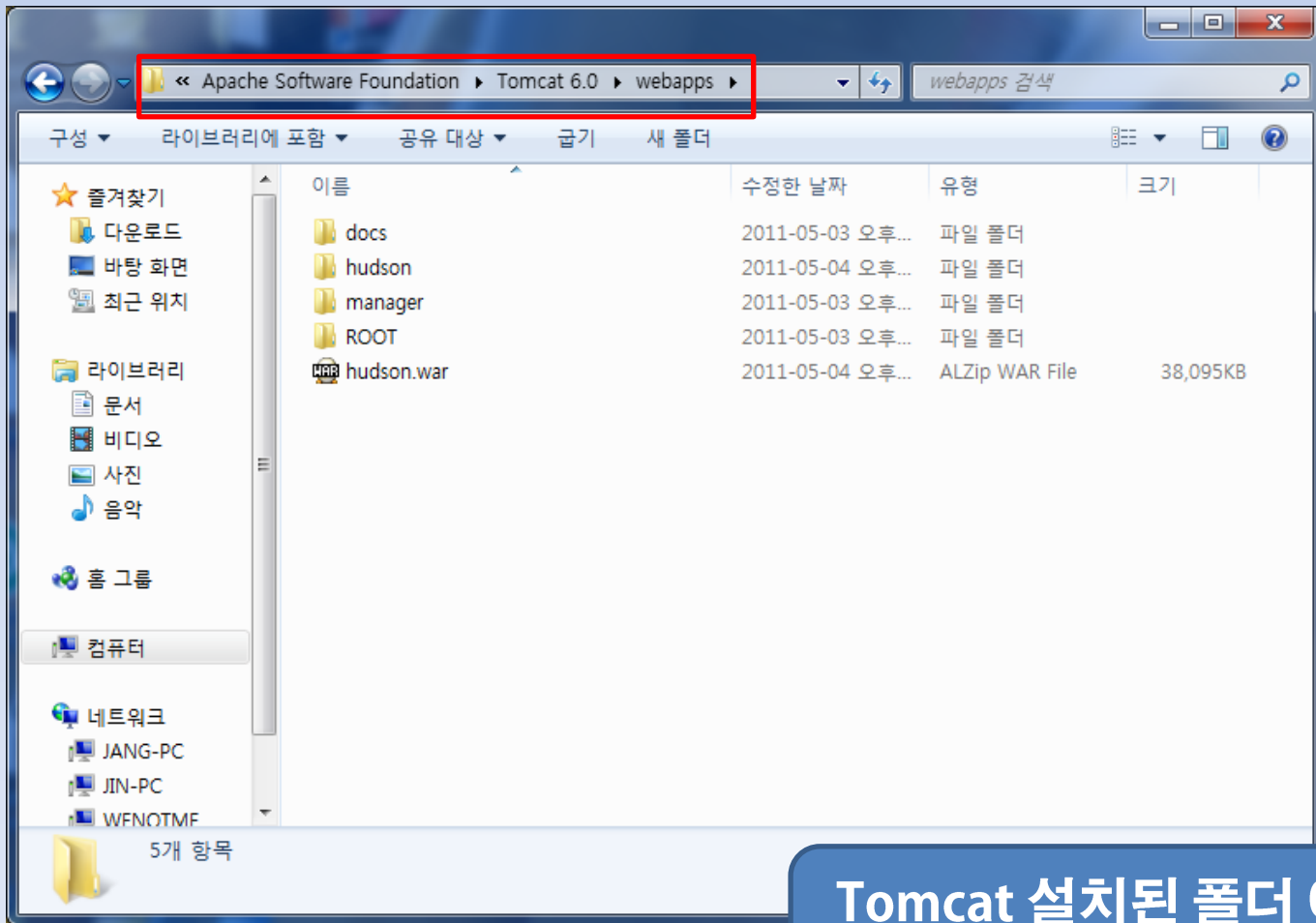
The screenshot shows the Hudson CI website homepage. At the top, there is a navigation menu with links for HOME, MAILING LISTS, BUGS, WIKI, SOURCE, and DOCUMENTATION. The main content area is divided into three columns: 'Meet Hudson' (with a cartoon character), 'Use Hudson' (with a cartoon character holding a book), and 'Extend Hudson' (with a cartoon character holding a wrench). To the right of these columns is a 'News' section with three articles: 'Hudson 2.0.0 Is Available', 'Revision of Hudson Versioning Scheme', and 'Hudson Process Documents Published'. Below the main content, there are sections for 'Download Hudson .war', 'Download Native Pkg', and 'Support'. The 'Download Hudson .war' section highlights the 'Latest Version 2.0.0'. The 'Download Native Pkg' section lists operating systems: Ubuntu / Debian, Oracle Linux, Redhat / Fedora / CentOS, and openSUSE. The 'Support' section includes links for 'Community Support', 'Need professional support?', and 'Professional support for Hudson'. A 'Twitter Feed' and 'JIRA Updates' section is also visible. A 'Java' award logo is present in the bottom right corner of the website content.

<http://hudson-ci.org>
접속 & 다운로드

Construct Environment For CTIP

Hudson Installation

Hudson Installation



Tomcat 설치된 폴더 아래
webapps 폴더에 복사

Hudson Installation

http://localhost:8080/hudson/

Hudson

새 작업
Hudson 관리
개발자
빌드 기록

Hudson에 오신 것을 환영합니다. 시작하려면 새 작업을 만들어 주시기 바랍니다.

빌드 대기 목록
빌드 대기 항목이 없습니다.

빌드 실행 상태

#	상태
1	대기 중
2	대기 중

페이지 작성: 2011. 5. 4 오후 9:42:36 Hudson ver. 2.0.0

<http://192.168.0.2:8080/hudson/>

Hudson Installation

The screenshot shows the Hudson web interface at <http://localhost:8080/hudson/view/All/newJob>. The page title is "Hudson" and the breadcrumb is "Hudson > All". On the left sidebar, there are links for "새 작업" (New Job), "Hudson 관리" (Hudson Management), "개발자" (Developer), and "빌드 기록" (Build History). Below these are sections for "빌드 대기 목록" (Build Queue) and "빌드 실행 상태" (Build Execution Status). The main content area shows a form to create a new job. The job name is "Hudson_0.1". The "Build a free-style software project" option is selected and highlighted with a red box. Other options include "Build a maven2/3 project", "Monitor an external job", and "Build multi-configuration project". An "OK" button is at the bottom of the form.

작업명: Hudson_0.1

- Build a free-style software project**
이것은 Hudson의 기본 기능입니다. Hudson은 어느 빌드 시스템과 어떤 SCM(형상관리)으로 묶인 당신의 프로젝트를 빌드할 것이고, 소프트웨어 빌드보다 다른 어떤 것에 자주 사용될 수 있습니다.
- Build a maven2/3 project**
Maven2/3 프로젝트를 빌드합니다. Hudson은 POM 파일의 이점을 가지고 있고 급격히 설정을 줄입니다.
- Monitor an external job**
이 유형의 작업은 원격 장비처럼 Hudson 외부에서 동작하는 프로세스의 실행을 기록하는 것을 허용합니다. 그렇게 설계되어서, 기존의 자물 시스템의 대시보드로서 Hudson을 사용할 수 있습니다. 자세한 설명은 [여기\(영문\)](#)을 보세요.
- Build multi-configuration project**
다양한 환경에서의 테스트, 플레폼 특성 빌드, 기타 등등 처럼 다수의 서로다른 환경설정이 필요한 프로젝트에 적합함.

OK

페이지 작성: 2011. 5. 4 오후 9:51:42 Hudson ver. 2.0.0

<http://localhost:8080/hudson/>

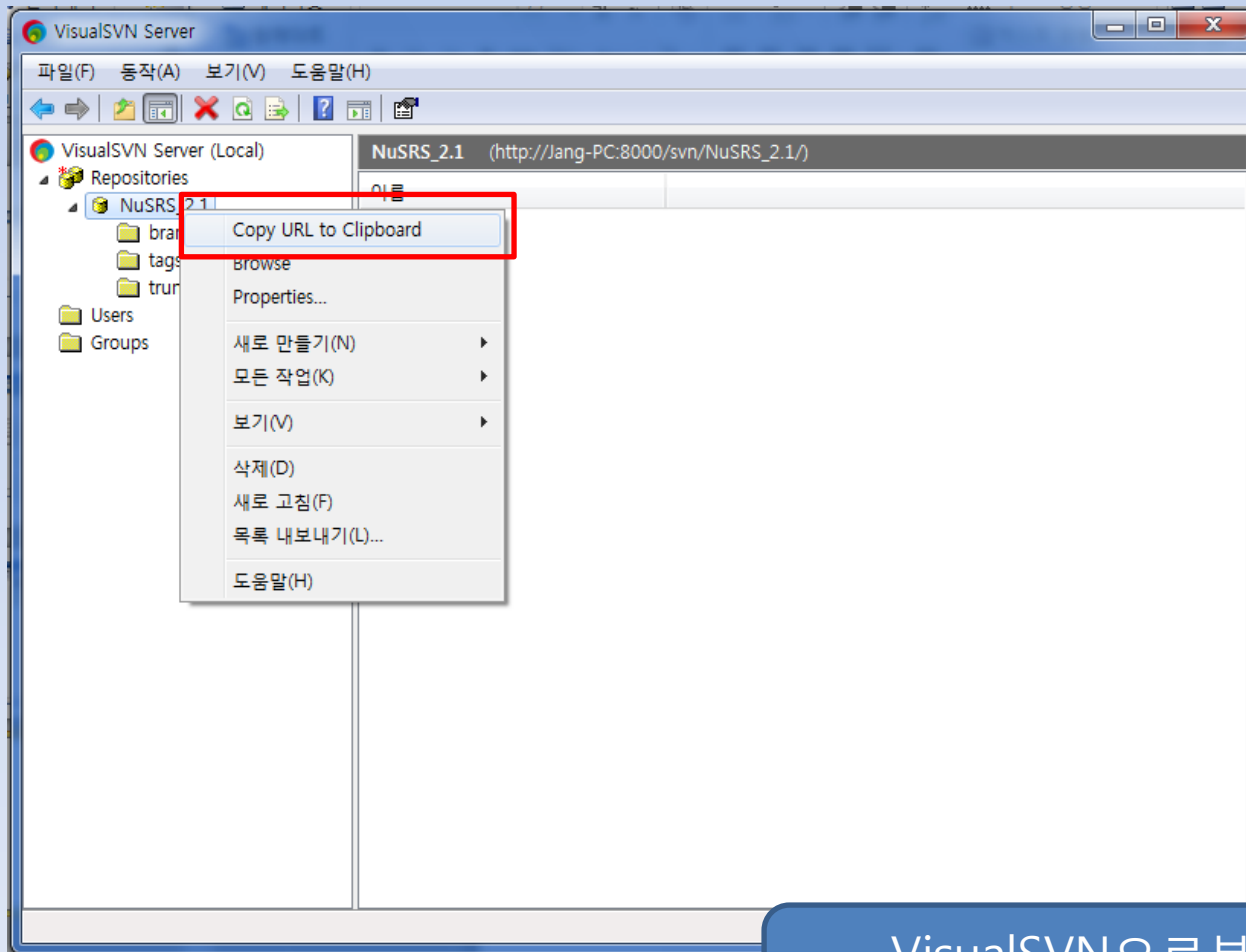
새로운 작업 만들기

Hudson Installation

The screenshot shows the Hudson web interface for configuring a project named 'NuSRS_2.1'. The browser address bar shows 'http://localhost:8080/hudson/job/NuSRS_2.1/configure'. The left sidebar contains navigation links: 'Back to Dashboard', 'Status', 'Changes', 'Workspace', 'Build Now', 'Delete Project', and 'Configure'. Below these is a 'Build History' section with a '(trend)' link and two RSS feeds: 'for all' and 'for failures'. The main configuration area includes a 'Project name' field with 'NuSRS_2.1' and a 'Description' text area. There are several checkboxes: 'Discard Old Builds', 'This build is parameterized', 'Disable Build (No new builds will be executed until the project is re-enabled.)', and 'Execute concurrent builds if necessary (beta)'. Below these is the 'Advanced Project Options' section with an 'Advanced...' button. The 'Source Code Management' section has three radio buttons: 'None', 'CVS', and 'Subversion', with 'Subversion' selected and highlighted by a red box. Under 'Subversion', there are fields for 'Repository URL' and 'Local module directory (optional)', and an 'Add more locations...' button. There are also checkboxes for 'Use update' (checked) and 'Revert', with explanatory text for each. The 'Repository browser' is set to '(Auto)'.

Suversion 설정하기

Hudson Installation



VisualSVN으로부터
Repository Url 받기

Hudson Installation

http://localhost:8080/hudson/job/NuSRS_2.1/configure

Status Description this is test for NuSRS

Changes
Workspace
Build Now
Delete Project
Configure

Build History (trend)
for all for failures

Discard Old Builds
 This build is parameterized
 Disable Build (No new builds will be executed until the project is re-enabled.)
 Execute concurrent builds if necessary (beta)

Advanced Project Options

Source Code Management

None
 CVS
 Subversion

Modules

Repository URL

Local module directory (optional)

Use update
If checked, Hudson will use 'svn update' whenever possible, making the build faster. But this causes the artifacts from the previous build to remain when a new build starts.

Revert
If checked, Hudson will do 'svn revert' before doing 'svn update'. This slows it down, but will prevent files being modified from build to build.

Repository browser (Auto)

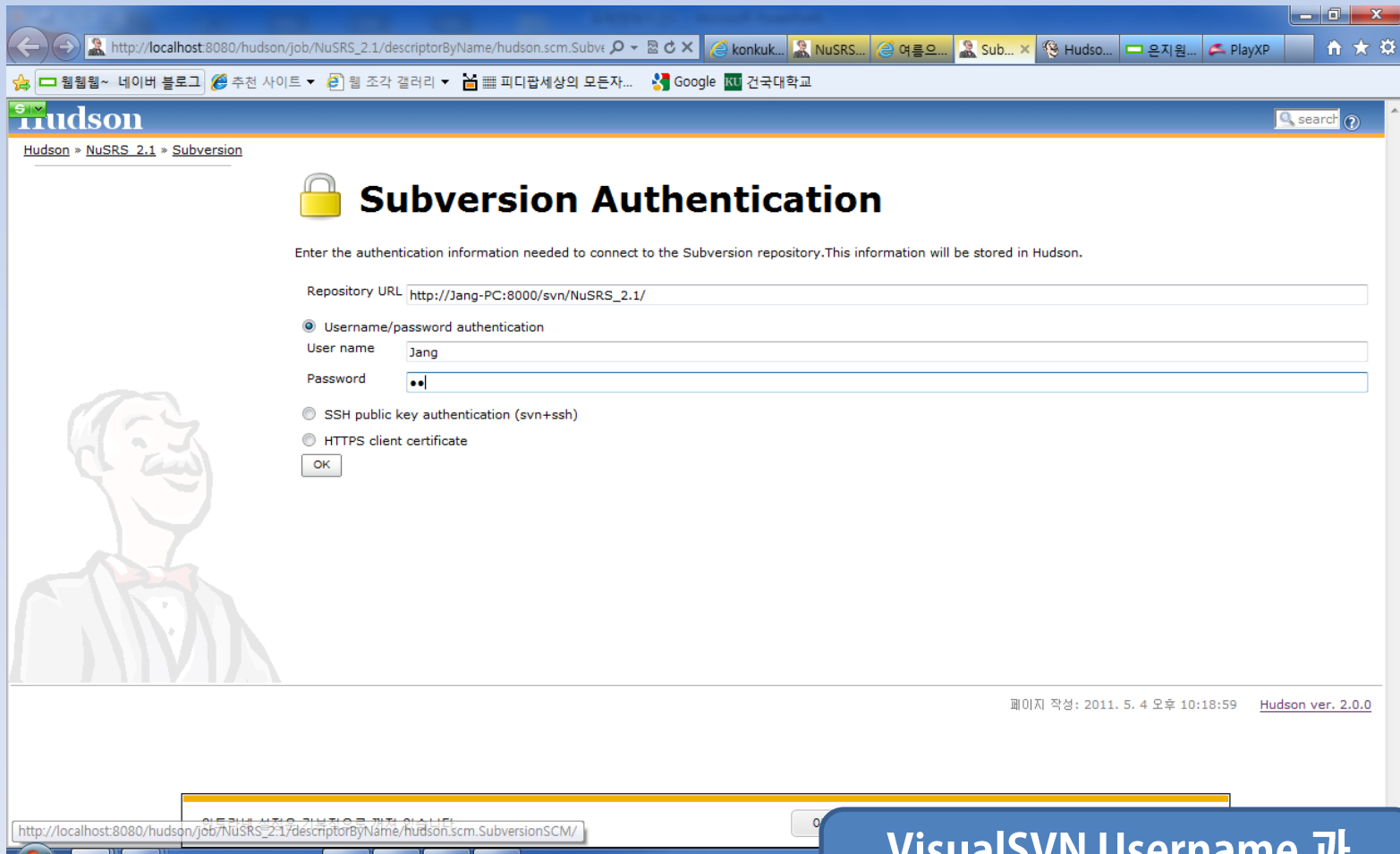
Build Triggers
 Build after other projects are built

Repository Url 지정

Unable to access http://Jang-PC:8000/svn/NuSRS_2.1/ : svn: No credential to try.
Authentication failed (show details)
(Maybe you need to enter credential?)

Username 설정

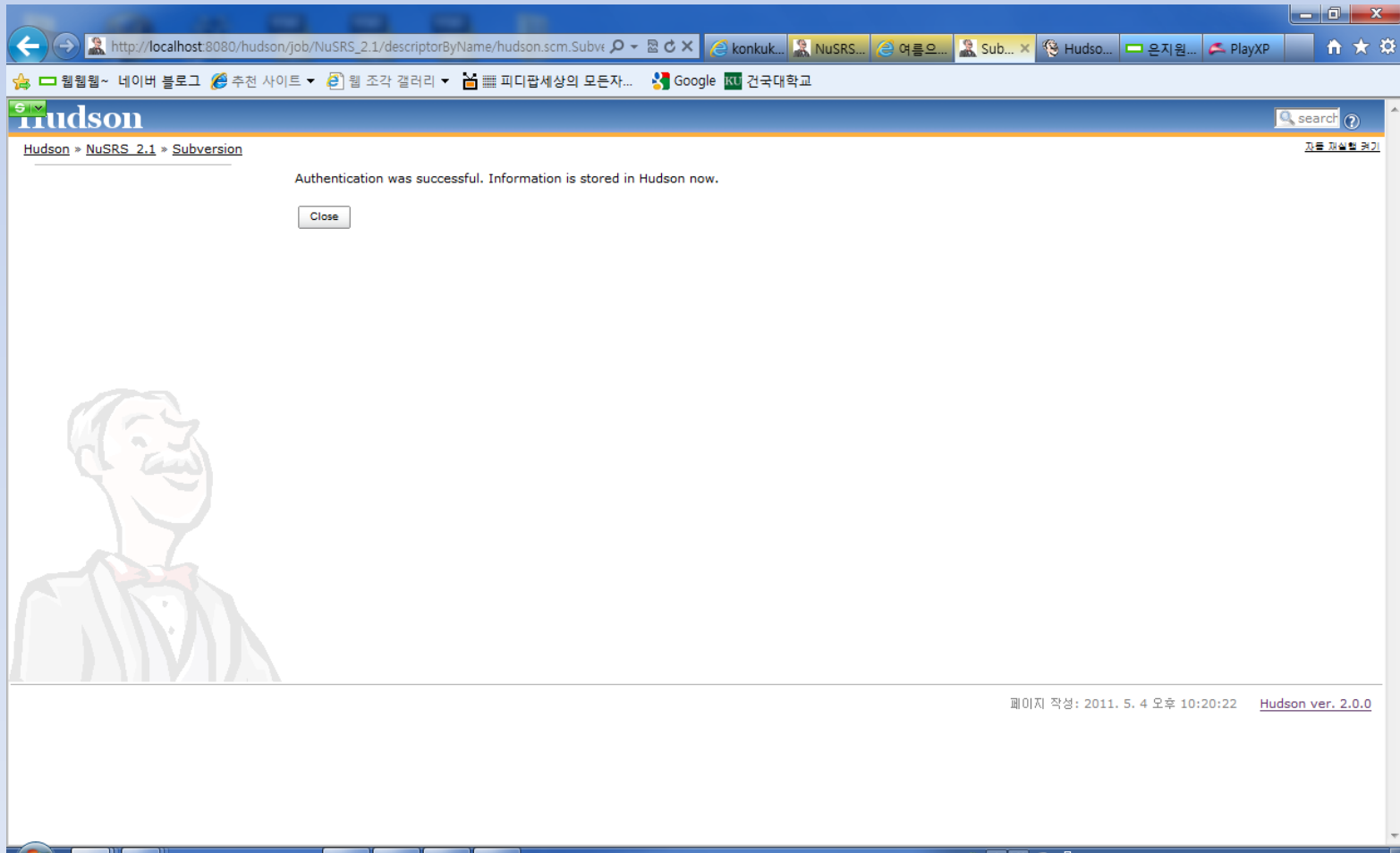
Hudson Installation



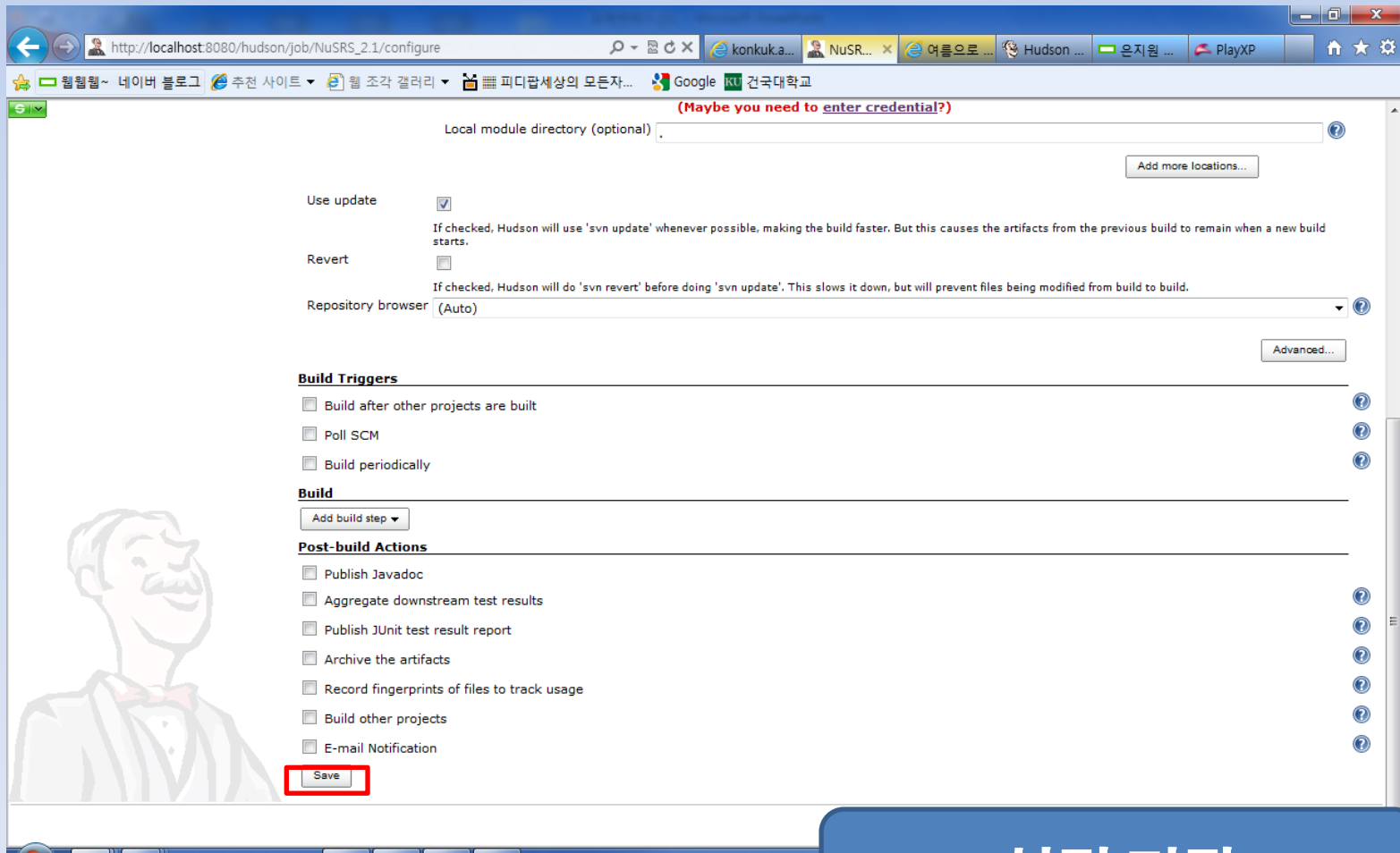
The screenshot shows the Hudson web interface for Subversion authentication. The browser address bar shows the URL: `http://localhost:8080/hudson/job/NuSRS_2.1/descriptorByName/hudson.scm.SubversionSCM/`. The page title is "Hudson" and the breadcrumb is "Hudson > NuSRS_2.1 > Subversion". The main heading is "Subversion Authentication" with a lock icon. Below the heading, there is a text prompt: "Enter the authentication information needed to connect to the Subversion repository. This information will be stored in Hudson." The form includes a "Repository URL" field with the value `http://Jang-PC:8000/svn/NuSRS_2.1/`. There are three radio button options for authentication: "Username/password authentication" (selected), "SSH public key authentication (svn+ssh)", and "HTTPS client certificate". The "Username/password authentication" section has a "User name" field with the value "Jang" and a "Password" field with masked characters. An "OK" button is located at the bottom left of the form. A cartoon illustration of a man with a mustache and a bow tie is visible on the left side of the page. At the bottom right, there is a footer with the text "페이지 작성: 2011. 5. 4 오후 10:18:59 Hudson ver. 2.0.0".

VisualSVN Username 과
password 입력

Hudson Installation



Hudson Installation



The screenshot shows the Hudson configuration page for a job named 'NuSR5_2.1'. The browser address bar indicates the URL is 'http://localhost:8080/hudson/job/NuSR5_2.1/configure'. The page contains several configuration sections:

- Local module directory (optional):** A text input field with a search icon and an 'Add more locations...' button.
- Use update:** A checked checkbox. Below it, text explains: 'If checked, Hudson will use 'svn update' whenever possible, making the build faster. But this causes the artifacts from the previous build to remain when a new build starts.'
- Revert:** An unchecked checkbox. Below it, text explains: 'If checked, Hudson will do 'svn revert' before doing 'svn update'. This slows it down, but will prevent files being modified from build to build.'
- Repository browser:** A dropdown menu set to '(Auto)' with an 'Advanced...' button to its right.
- Build Triggers:** A section with three unchecked checkboxes: 'Build after other projects are built', 'Poll SCM', and 'Build periodically'.
- Build:** A section with an 'Add build step' dropdown menu.
- Post-build Actions:** A section with seven unchecked checkboxes: 'Publish Javadoc', 'Aggregate downstream test results', 'Publish JUnit test result report', 'Archive the artifacts', 'Record fingerprints of files to track usage', 'Build other projects', and 'E-mail Notification'.

A red box highlights the 'Save' button at the bottom left of the configuration area. A cartoon character of a man with a mustache and a bow tie is visible in the bottom left corner of the screenshot.

설정 저장

Hudson Installation

http://localhost:8080/hudson/job/NuSRS_2.1/

Hudson

Hudson » NuSRS_2.1

- [Back to Dashboard](#)
- [Status](#)
- [Changes](#)
- [Workspace](#)
- [Build Now](#)**
- [Delete Project](#)
- [Configure](#)

Build History (trend)

[for all](#) [for failures](#)

Project NuSRS_2.1

[Workspace](#)

[Recent Changes](#)

[소개 내용 입력](#)
Disable Project

Permalinks

페이지 작성: 2011. 5. 4 오후 10:22:58 Hudson ver. 2.0.0

Build 하기

Hudson Installation

The screenshot displays the Hudson web interface in a browser window. The address bar shows the URL `http://localhost:8080/hudson/job/NuSRS_2.1/ws/`. The page title is "Hudson" and the breadcrumb is "Hudson > NuSRS_2.1".

On the left sidebar, there are several navigation links: "Back to Dashboard", "Status", "Changes", "Workspace", "Wipe Out Workspace", "Build Now", "Delete Project", and "Configure".

The main content area shows a file explorer view of the workspace. It contains a search bar and a list of folders: ".svn", "branches", "tags", and "trunk". Below the folders is a link for "(all files in zip)".

The "Build History" section is expanded, showing a single build entry:

#	Build	Time
#1	2011. 5. 4 오후 10:24:15	2011. 5. 4 오후 10:24:15

Below the build entry, there are two links: "for all" and "for failures".

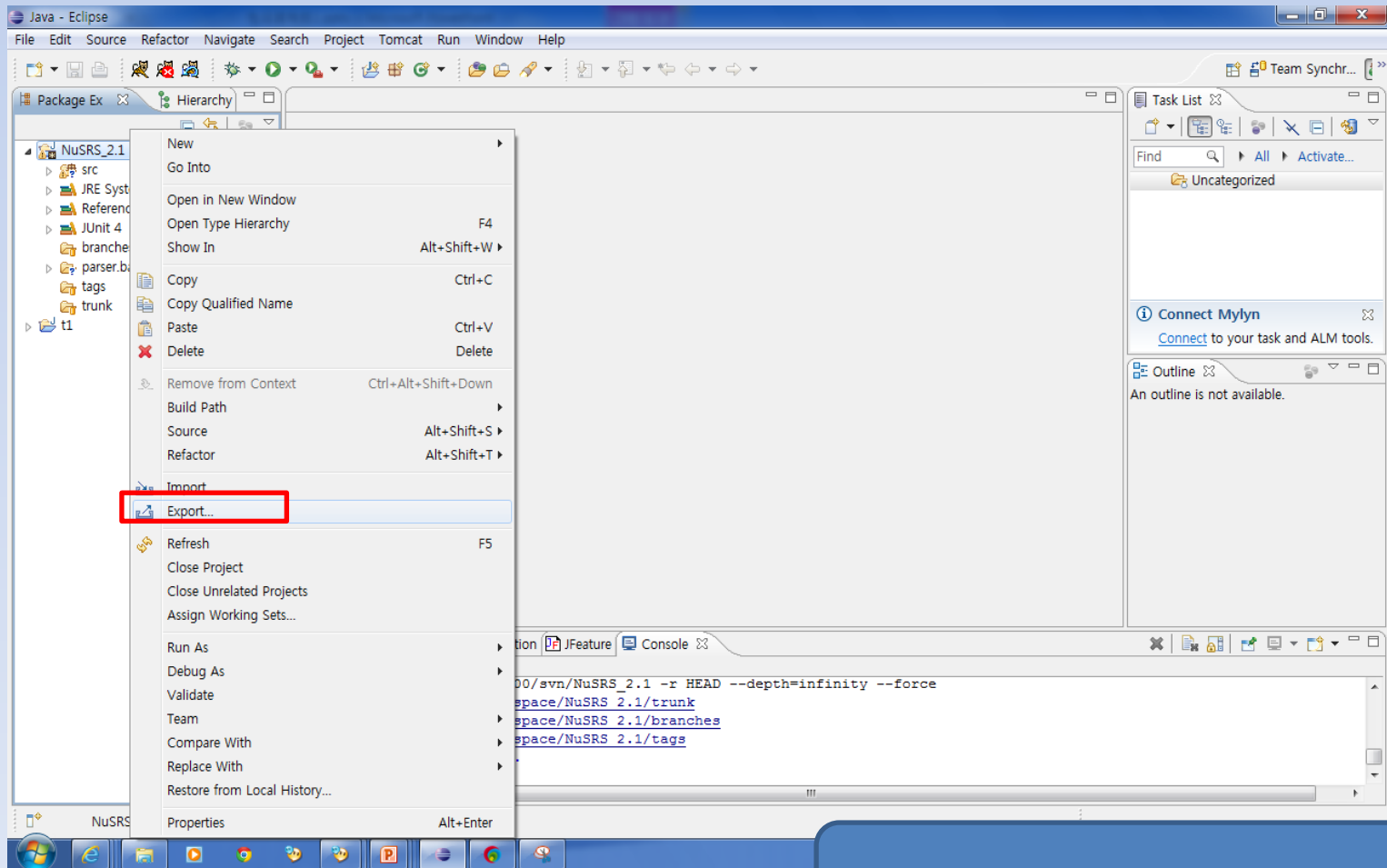
At the bottom right of the page, the footer text reads: "페이지 작성: 2011. 5. 4 오후 10:24:24 Hudson ver. 2.0.0".

The browser's taskbar at the bottom shows several open windows, including "konkuk.a...", "NuSR...", "여름으로...", "Hudson ...", "은지원 ...", and "PlayXP".

Construct Environment For CTIP

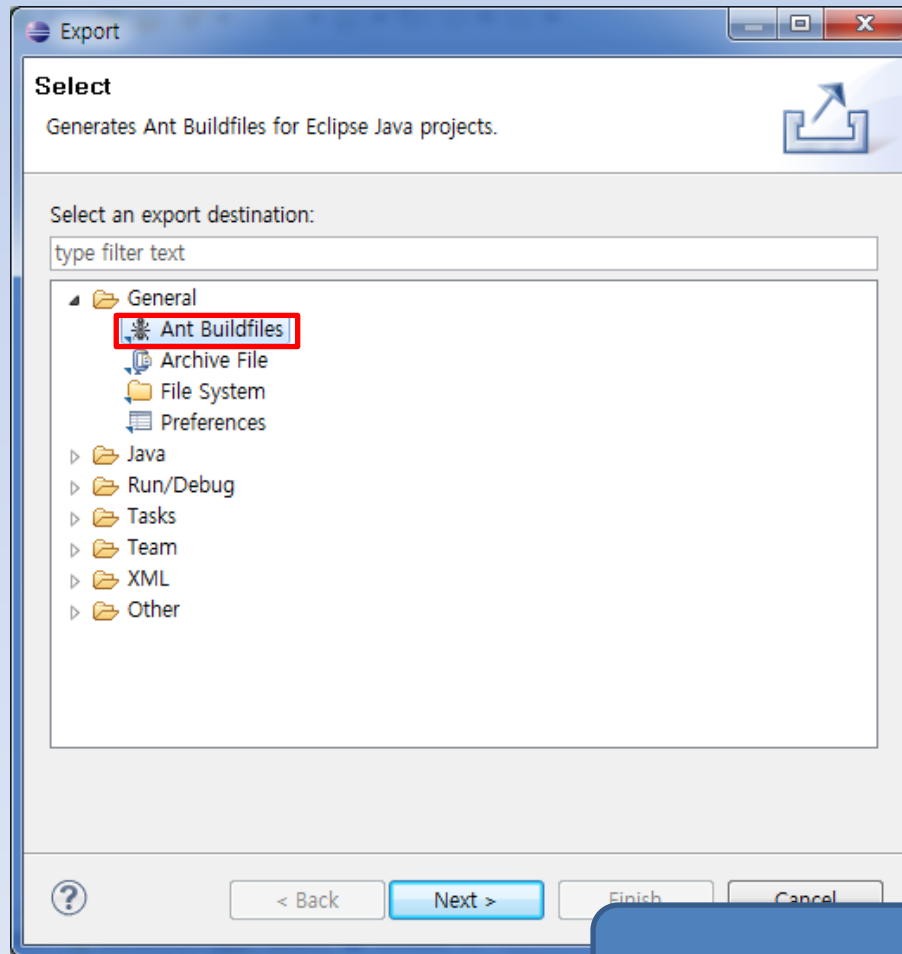
Using Ant

Using Ant



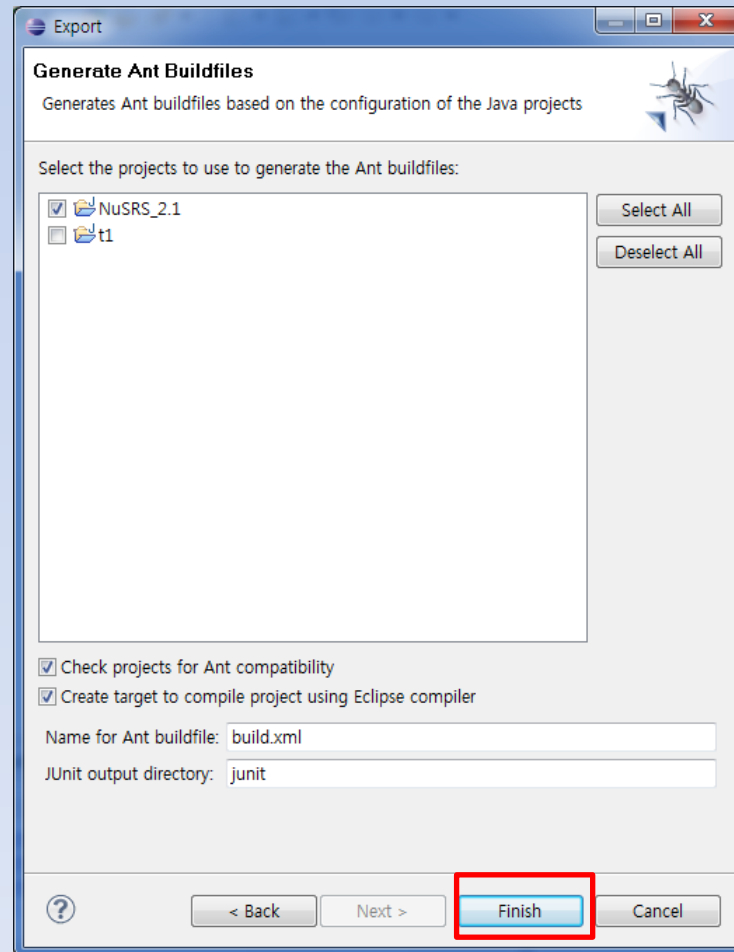
Export

Using Ant



Ant Building 선택

Using Ant



Usage Ant

The screenshot displays the Eclipse IDE interface. The main editor shows an auto-generated `build.xml` file with the following content:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<!-- WARNING: Eclipse auto-generated file.
Any modifications will be overwritten.
To include a user specific buildfile here, simply create one in the same
directory with the processing instruction <?eclipse.ant.import?>
as the first entry and export the buildfile again. -->
<project basedir="." default="build" name="NuSRS_2.1">
  <property environment="env"/>
  <property name="debuglevel" value="source,lines,vars"/>
  <property name="target" value="1.6"/>
  <property name="source" value="1.6"/>
  <path id="JUnit 4.libraryclasspath">
    <pathelement location="../../../../백업/eclipse-java-galileo-SR2-win32/eclipse/plugins/org.junit4.library.jar"/>
    <pathelement location="../../../../백업/eclipse-java-galileo-SR2-win32/eclipse/plugins/org.junit4.library.jar"/>
  </path>
  <path id="NuSRS_2.1.classpath">
    <pathelement location="bin"/>
    <pathelement location="src/lib/idw-gpl.jar"/>
    <pathelement location="src/lib/NuSRS.jar"/>
    <pathelement location="src/lib/xnap-commons-0.9-SNAPSHOT.jar"/>
    <pathelement location="src/lib/y.jar"/>
    <path refid="JUnit 4.libraryclasspath"/>
    <pathelement location="src/lib/log4j-1.2.16.jar"/>
    <pathelement location="src/lib/sat4j-csp.jar"/>
    <pathelement location="src/lib/commons-logging.jar"/>
  </path>
  <target name="init">
  </target>
</project>
```

The console window at the bottom shows the following SVN checkout logs:

```
SVN
checkout http://jang-pc:8000/svn/NuSRS_2.1 -r HEAD --depth=infinity --force
A C:/Users/Jang/workspace/NuSRS_2.1/trunk
A C:/Users/Jang/workspace/NuSRS_2.1/branches
A C:/Users/Jang/workspace/NuSRS_2.1/tags
Checked out revision 1.
```

build.xml Auto Generate

What is NuFTA?

NuFTA (Nuclear Fault Tree Analysis tool)

- NuSRS에 포함되어 있는 Tool
- Software Model 분석을 통해 fault를 찾는 Tool
- Input으로 NuSCR를 사용한다.

NuSRS (Software Requirements Specification)

- NuSCR로 기술된 요구사항의 명세 및 검증을 지원하는 자동화 도구

NuSCR (Nuclear Software Cost Reduction)

- 요구사항을 기술하기 위한 정형명세언어
- 입력을 받아서 제어논리를 수행하고 출력을 하는 소프트웨어 명세 기술
- 원자력분야 요구사항 기술에 적합

Testing NuFTA

Requirements

Document Specified Requirement

- Used symbol : “|, &, +, -, =, !, <, >, <=, >=, :=, (,)”
- Divide with operator and definition of variable
- Expression must be identified that value is false or true
- If ‘(‘, ‘)’ is occurred in expression, identify value
- Expression is parsed to Logic structure

1. Functional Specification

Extract Functional Specification

- String의 Symbol이 define된 Symbol
- String이 연산자와 정의에 의해서 식이 알맞은 단위로 나뉘어짐
- String의 Statement가 Boolean value
- String에 ‘(, ’) 가 추가되었을 때 하나의 value로 인식

2. Identify Representative Values

- **String의 Symbol이 define된 Symbol**
 - Valid
 - Invalid
- **String이 연산자와 정의에 의해서 식이 알맞은 단위로 나뉘어짐**
 - Valid
 - Invalid
- **String의 Statement가 Boolean value**
 - Match type
 - Mismatch type
- **String에 ‘(, ’) 가 추가되었을 때 하나의 value로 인식**
 - 괄호 있을 때
 - 괄호 없을 때

3. Generate Test Case Specifications

Error Constraints

- **String의 Symbol이 define된 Symbol**
 - Valid
 - Invalid [error]
- **String이 연산자와 정의에 의해서 식이 알맞은 단위로 나뉘어짐**
 - Valid
 - Invalid [error]
- **String의 Statement가 Boolean value**
 - Match type
 - Mismatch type [error]
- **String에 ‘(’, ‘)’ 가 추가되었을 때 하나의 value로 인식**
 - 괄호 있을 때
 - 괄호 없을 때

3. Generate Test Case Specifications

Error Constraints

	Symbol	element	Type	괄호가 존재하는가	String
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input=true&f_Input1=true)f_Input2=false
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2=false
3	Valid Symbol	Valid Element Name	Invalid Type	괄호 있음	(f_Input=true&f_Input1=true)f_Input2
4	Valid Symbol	Valid Element Name	Invalid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2
5	Valid Symbol	Invalid Element Name	Valid Type	괄호 있음	(f_=Input=true&f_Input1=true)f_Input2=false
6	Valid Symbol	Invalid Element Name	Valid Type	괄호 없음	f_=Input=true&f_Input1=true f_Input2=false
7	Valid Symbol	Invalid Element Name	Invalid Type	괄호 있음	(f_=Input=true&f_Input1=true)f_Input2
8	Valid Symbol	Invalid Element Name	Invalid Type	괄호 없음	f_=Input=true&f_Input1=true f_Input2
9	Invalid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input=true&f_Input1=true)?f_Input2=false
10	Invalid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2?=false
11	Invalid Symbol	Valid Element Name	Invalid Type	괄호 있음	(f_Input=true&f_Input1=?true) f_Input2
12	Invalid Symbol	Valid Element Name	Invalid Type	괄호 없음	f_Input=true&f_Input1? =true f_Input2
13	Invalid Symbol	Invalid Element Name	Valid Type	괄호 있음	(f_=Input=true&f_Input1/=true)f_Input2=false
14	Invalid Symbol	Invalid Element Name	Valid Type	괄호 없음	f_=Input=true&f_Input1/=true f_Input2=false
15	Invalid Symbol	Invalid Element Name	Invalid Type	괄호 있음	(f_=Input=true&f_Input1/=true)f_Input2
16	Invalid Symbol	Invalid Element Name	Invalid Type	괄호 없음	f_=Input=true&f_Input1/=true f_Input2

3. Generate Test Case Specifications

Error Constraints

	Symbol	element	Type	괄호가 존재하는가	String
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input=true&f_Input1=true) f_Input2=false
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2=false
3	Valid Symbol	Valid Element Name	Invalid Type	괄호 있음	(f_Input=true&f_Input1=true) f_Input2
4	Valid Symbol	Valid Element Name	Invalid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2
5	Valid Symbol	Invalid Element Name	Valid Type	괄호 있음	(f_=Input=true&f_Input1=true) f_Input2=false
6	Valid Symbol	Invalid Element Name	Valid Type	괄호 없음	f_=Input=true&f_Input1=true f_Input2=false
7	Valid Symbol	Invalid Element Name	Invalid Type	괄호 있음	(f_=Input=true&f_Input1=true) f_Input2
8	Valid Symbol	Invalid Element Name	Invalid Type	괄호 없음	f_=Input=true&f_Input1=true f_Input2
9	Invalid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input=true&f_Input1=true) ?f_Input2=false
10	Invalid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2?=false
11	Invalid Symbol	Valid Element Name	Invalid Type	괄호 있음	(f_Input=true&f_Input1=?true) f_Input2
12	Invalid Symbol	Valid Element Name	Invalid Type	괄호 없음	f_Input=true&f_Input1?=true f_Input2
13	Invalid Symbol	Invalid Element Name	Valid Type	괄호 있음	(f_=Input=true&f_I
14	Invalid Symbol	Invalid Element Name	Valid Type	괄호 없음	f_=Input=true&f_I
15	Invalid Symbol	Invalid Element Name	Invalid Type	괄호 있음	(f_=Input=true&f_I
16	Invalid Symbol	Invalid Element Name	Invalid Type	괄호 없음	f_=Input=true&f_I

Blue : expect true
 Red : expect error
 Yellow : typical error

3. Tested Test Case Specifications

Generated Test Cases

	Symbol	element	Type	괄호가 존재하는가	String
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input=true&f_Input1=true) f_Input2=false
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input!true&f_Input1=true) f_Input2=false
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input<30&f_Input1>40) f_Input2-f_Input1<=50
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input<30&f_Input1>40) f_Input2+f_Input1>=50
1	Valid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input:=true)
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input=true&f_Input1=true f_Input2=false
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input!true&f_Input1=true f_Input2=false
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input<30&f_Input1>40 f_Input2-f_Input1<=50
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input<30&f_Input1>40 f_Input2+f_Input1<=50
2	Valid Symbol	Valid Element Name	Valid Type	괄호 없음	f_Input:=true
3	Valid Symbol	Valid Element Name	Invalid Type	괄호 있음	(f_Input=true&f_Input1=true) f_Input2
5	Valid Symbol	Invalid Element Name	Valid Type	괄호 있음	(f_=Input=true&f_Input1=true) f_Input2=false
9	Invalid Symbol	Valid Element Name	Valid Type	괄호 있음	(f_Input=true&f_Input1=true) ??f_Input2=false

Test case Code

```
public void testStringToLogic1() {  
    String fullString =  
    "(f_Input=true&f_Input1=true)|f_Input2=false";  
  
    stringToLogic s = new stringToLogic(fullString);  
  
    Iterator it = s.lm.iterator();
```

```
    assertEquals(((logicMember)it.next()).element,"f_Input=true");  
    assertEquals(((logicMember)it.next()).element,"&");  
    assertEquals(((logicMember)it.next()).element,"f_Input1=true");  
    assertEquals(((logicMember)it.next()).element,"|");  
    assertEquals(((logicMember)it.next()).element,"f_Input2=false");
```

```
    it = s.lm.iterator();
```

Expected
Element



Test case Code

```
assertEquals(((logicMember)it.next()).level,1);  
assertEquals(((logicMember)it.next()).level,1);  
assertEquals(((logicMember)it.next()).level,1);  
assertEquals(((logicMember)it.next()).level,0);  
assertEquals(((logicMember)it.next()).level,0);
```

Expected
Level Value

```
it = s.lm.iterator();
```

```
assertEquals(((logicMember)it.next()).numNot,0);  
assertEquals(((logicMember)it.next()).numNot,0);  
assertEquals(((logicMember)it.next()).numNot,0);  
assertEquals(((logicMember)it.next()).numNot,0);  
assertEquals(((logicMember)it.next()).numNot,0);
```

Expected
numNot Value

```
}
```


Requirement Coverage Report

Home

All Categories

No categories exist.

All Requirements

Symbol (83.33%)
ElementName (81.82%)
Type (83.33%)
Brace (85.71%)

Requirement Coverage Report

Requirement Coverage Summary

Symbol (12)	10 (83.33%)	2 (16.67%)
-------------	-------------	------------

Requirement Coverage Details

Sr#	Test Methods	Coverage
1.	logic.stringToLogicTest.testStringToLogic1	100%
2.	logic.stringToLogicTest.testStringToLogic10	100%
3.	logic.stringToLogicTest.testStringToLogic12	100%
4.	logic.stringToLogicTest.testStringToLogic13	100%
5.	logic.stringToLogicTest.testStringToLogic2	0%
6.	logic.stringToLogicTest.testStringToLogic3	100%
7.	logic.stringToLogicTest.testStringToLogic4	100%
8.	logic.stringToLogicTest.testStringToLogic5	100%
9.	logic.stringToLogicTest.testStringToLogic6	100%
10.	logic.stringToLogicTest.testStringToLogic7	0%
11.	logic.stringToLogicTest.testStringToLogic8	100%
12.	logic.stringToLogicTest.testStringToLogic9	100%

Requirement Coverage Report

Requirement Coverage Report
Requirement Coverage Summary

ElementName (11)	9 (81.82%)	2 (18.18%)
------------------	------------	------------

Requirement Coverage Details

Sr#	Test Methods	Coverage
1.	logic.stringToLogicTest.testStringToLogic1	Green
2.	logic.stringToLogicTest.testStringToLogic10	Green
3.	logic.stringToLogicTest.testStringToLogic13	Green
4.	logic.stringToLogicTest.testStringToLogic2	Red
5.	logic.stringToLogicTest.testStringToLogic3	Green
6.	logic.stringToLogicTest.testStringToLogic4	Green
7.	logic.stringToLogicTest.testStringToLogic5	Green
8.	logic.stringToLogicTest.testStringToLogic6	Green
9.	logic.stringToLogicTest.testStringToLogic7	Red
10.	logic.stringToLogicTest.testStringToLogic8	Green
11.	logic.stringToLogicTest.testStringToLogic9	Green

Home
All Categories
No categories exist.

All Requirements
Symbol (83.33%)
ElementName (81.82%)
Type (83.33%)
Brace (85.71%)

Requirement Coverage Report

Home

All Categories

No categories exist.

All Requirements

Symbol (83.33%)
ElementName (81.82%)
Type (83.33%)
Brace (85.71%)

Requirement Coverage Report

Requirement Coverage Summary

Type (12)	10 (83.33%)	2 (16.67%)
-----------	-------------	------------

Requirement Coverage Details

Sr#	Test Methods	Coverage
1.	logic.stringToLogicTest.testStringToLogic1	
2.	logic.stringToLogicTest.testStringToLogic10	
3.	logic.stringToLogicTest.testStringToLogic12	
4.	logic.stringToLogicTest.testStringToLogic13	
5.	logic.stringToLogicTest.testStringToLogic2	
6.	logic.stringToLogicTest.testStringToLogic3	
7.	logic.stringToLogicTest.testStringToLogic4	
8.	logic.stringToLogicTest.testStringToLogic5	
9.	logic.stringToLogicTest.testStringToLogic6	
10.	logic.stringToLogicTest.testStringToLogic7	
11.	logic.stringToLogicTest.testStringToLogic8	
12.	logic.stringToLogicTest.testStringToLogic9	

Requirement Coverage Report

Debug - Eclipse SDK

File Edit Navigate Search Project Run Window Help

Home

All Categories

No categories exist.

All Requirements

Symbol (83.33%)
ElementName (81.82%)
Type (83.33%)
Brace (85.71%)

Requirement Coverage Report

Requirement Coverage Summary

Brace (7)

6 (85.71%)	1 (14.29%)
------------	------------

Requirement Coverage Details

Sr#	Test Methods	Coverage
1.	logic.stringToLogicTest.testStringToLogic1	100%
2.	logic.stringToLogicTest.testStringToLogic12	100%
3.	logic.stringToLogicTest.testStringToLogic13	100%
4.	logic.stringToLogicTest.testStringToLogic2	0%
5.	logic.stringToLogicTest.testStringToLogic3	100%
6.	logic.stringToLogicTest.testStringToLogic4	100%
7.	logic.stringToLogicTest.testStringToLogic5	100%

Report generated on 금, 06 5월 2011 04:25:40 KST

Powered By JFeature

Auto Build by Hudson



The screenshot shows a web browser window displaying the Hudson build console for a job named 'nufta_test #12'. The browser's address bar shows the URL '192.168.0.2:8080/hudson/job/nufta_test/12/console'. The page header includes the Hudson logo and a search bar. The main content area shows the build status and console output. On the left, there is a navigation menu with icons for '프로젝트로 돌아가기', '상태', '변경사항', '콘솔 출력', 'Configure', 'Tag this build', and '이전 빌드'. The console output indicates that the build was started by an anonymous user, updated from revision 10, and finished successfully. At the bottom, there are download links for '[JFeature]Manual.pdf' and 'jfeature_1_2 (1).zip', and a '다운로드 항목 모두 표시...' link.

192.168.0.2:8080/hudson/job/nufta_test/12/console

Hudson

Hudson » nufta_test » #12

이 페이지는 영어로 되어 있습니다. 번역하시겠습니까? [번역](#) [번역 안함](#) [영어 번역 안함](#) 옵션

프로젝트로 돌아가기

상태

변경사항

콘솔 출력

Configure

Tag this build

이전 빌드

콘솔 출력

Started by user anonymous
Updating <http://jin-pc:8443/svn/nufta>
At revision 10
no change for <http://jin-pc:8443/svn/nufta> since the previous build
Finished: SUCCESS

필문으로 조회

페이지 작성: 2011. 5. 6 오전 5:13:57 Hudson ver. 1.393

[JFeature]Manual.pdf

jfeature_1_2 (1).zip

다운로드 항목 모두 표시...

Auto Build by Hudson

192.168.0.2:8080/hudson/job/nufta_test/11/changes#detail0

Hudson > nufta_test > #11

- 프로젝트를 돌아가기
- 상세
- 변경사항
- 문서 출력
- Configure
- Tag this build
- 이전 빌드
- Next Build

변경사항

Summary

- 1.
- 2.
- 3.
- 4.

Revision 10 by dev1:

- /NuSRS_Source/src/logic/stringToLogicTest.java
- /NuSRS_Source/requirements.jrq

Revision 9 by dev1:

- /NuSRS_Source/src/nuscrUI/FODViewer.java
- /NuSRS_Source/src/logic/AllTests.java
- /NuSRS_Source/src/logic/stringToLogicTest.java
- /NuSRS_Source/requirements.jrq

Revision 8 by dev1:

- /NuSRS_Source/src/nuscrUI/FODViewer.java
- /NuSRS_Source/src/NuSRS_Test
- /NuSRS_Source/src/logic/logicMember.java
- /NuSRS_Source/src/NuSRS_Test/stringToLogicTest.java
- /NuSRS_Source/src/logic/requirements.jrq
- /NuSRS_Source/requirements.jrq

Revision 7 by dev1:

- /NuSRS_Source/src/data/SDTableData.java
- /NuSRS_Source/src/logic/logicMember.java
- /NuSRS_Source/.jfeature
- /NuSRS_Source/src/NuFTA/SDTAnalyzer.java
- /NuSRS_Source/src/logic/treeMember.java
- /NuSRS_Source/src/logic/requirements.jrq
- /NuSRS_Source/src/logic/stringToLogicTest.java
- /NuSRS_Source/src/NuFTA/FilterForSDT.java
- /NuSRS_Source/src/logic/stringToLogicTest.java
- /NuSRS_Source/src/NuFTA/TreeNode.java
- /NuSRS_Source/src/logic/formulaMember.java

페이지 작성: 2011. 5. 6 오전 5:15:07 Hudson ver. 1.393

[JFeature]Manual.pdf | jfeature_1_2 (1).zip | 다운로드 항목 모두 표시...

SVN Repository History

The screenshot displays the Eclipse IDE interface with the SVN Repositories view open. The main window shows the repository history for the project located at `http://jin-pc:8443/svn/nufta`. The history is presented in a table with columns for Revision, Date, Author, and Comment. The most recent revision is 10, dated 11. 5. 6 오전 5:10, authored by dev1. The bottom table shows the affected paths for revisions 1 and 2, indicating modifications to `/NuSRS_Source/requirements.j...` and `/NuSRS_Source/src/logic/strin...`.

Revision	Date	Author	Comment
10	11. 5. 6 오전 5:10	dev1	
9	11. 5. 6 오전 4:08	dev1	
8	11. 5. 6 오전 2:01	dev1	
7	11. 5. 6 오전 1:39	dev1	
6	11. 5. 4 오후 10:12	dev1	commit test1
5	11. 5. 4 오후 10:07	dev1	
4	11. 5. 4 오전 12:41	dev1	Chnge in NuNode
3	11. 5. 4 오전 12:30	dev1	Second Commit
2	11. 5. 4 오전 12:29	dev1	Initial import.
1	11. 5. 3 오후 11:26	dev1	Initial import.
0	11. 5. 3 오후 11:10	(no author)	

Acti...	Affected paths	Description
M	/NuSRS_Source/requirements.j...	
M	/NuSRS_Source/src/logic/strin...	

Existing Problem

CTIP Tool들의 세부 설정에 대한 이해가 부족

- ✓ Ant build.xml에서의 세부 Attribute 파악
- ✓ Hudson Sonar plug-in 연동에 대한 시도

SVN 서버에 개발자 세부 관리 필요

- ✓ 협업인 만큼 각자의 ID 부여
- ✓ Comment 작성의 의무화

소프트웨어 구조에 대한 이해 부족

- ✓ 각 Class별 구조 및 Function의 분석 필요
- ✓ Unit의 Boundary 결정이 필요

Improvement Plan

고정 서버 구축

- ✓ 고정 서버 구축으로 각자 역할 분담 만으로 향후 Test 진행

소프트웨어 구조 분석

- ✓ SDT와 FSM의 구현 방식 분석
- ✓ Logic Structure를 이용한 Tree Generate 구조 분석

Test Case를 Test Suite로 통합하여 관리

- ✓ Test Case의 Category를 설정하여 Test Suite으로 관리