

Integrated Development Environment e2 studi@0AN0264EJ0100 Rev.1.00

e2 studio with Subversion and plug-in Subversive

Oct 16, 2013

Summary

Subversion (SVN) is an open-source version control system. SVN allows developers to share their projects on repositories, where they are stored afterwards. Subversive is an Eclipse plug-in. Though subversive plugin, user can use SVN from Eclipse. e^2 studio is an integrated development environment based on Eclipse, so that e^2 studio is possible to realize work with external tool using plugin of Eclipse. This document describes how to utilize SVN from e^2 studio using Subversive plugin.

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1. Introduction

1.1 e² studio with Subversive

 e^2 studio is an integrated development environment based on Eclipse, so that e^2 studio is possible to realize work with external tool using plugin of Eclipse. Subversive is a popular SVN bridge plug-in for Eclipse. Subversive plug-in provides access to SVN repositories from the e^2 studio workbench. Friendly user interface of Subversive makes it much more comfortable to operate repositories.

1.2 Environment

This document is described based on environment as the following:

e² studio: 2.1.0.xx

Subversive SVN Team Provider: 1.1.0

Subversive SVN Connector: 3.0.0

SVN: 1.6.5

OS: Windows 7

Usage 2.

Workflow of access to SVN via the subversive plug-in from e² studio 2.1

Subversive plug-in provides access to SVN repositories from the e² studio workbench.

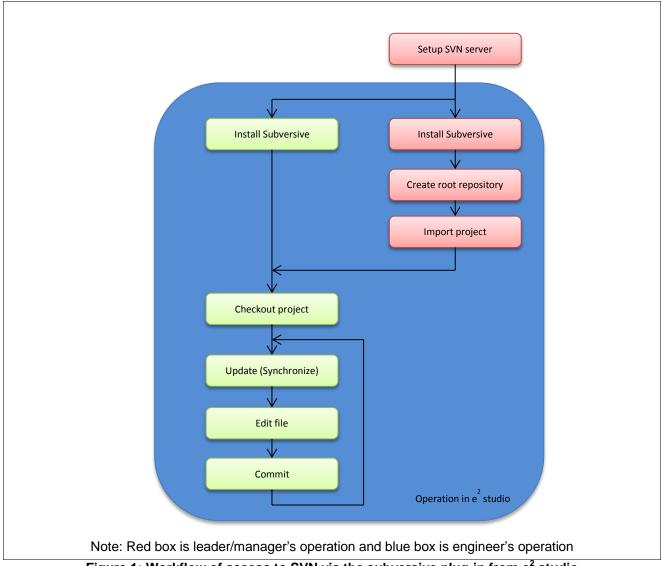


Figure 1: Workflow of access to SVN via the subversive plug-in from e² studio

Architecture of SVN and e² studio co-operation 2.2

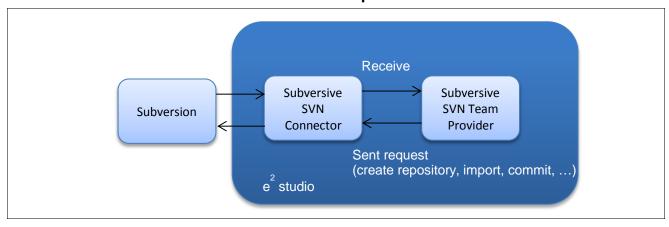
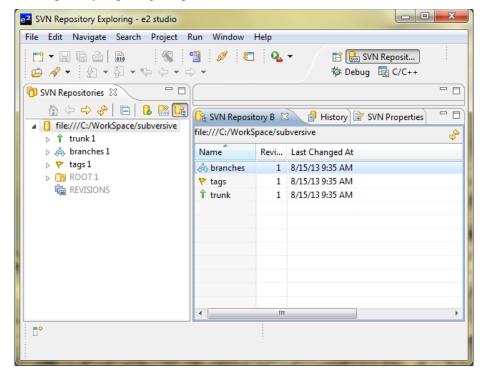


Figure 2: Architecture of SVN and e² studio co-operation

2.3 SVN Repository Exploring Perspective

'SVN Repository Exploring Perspective' is the default one for most Subversive views. It's recommended to allocate all the views with contents connected to the repositories and synchronizing. Use this perspective to operate and navigate through repository locations.

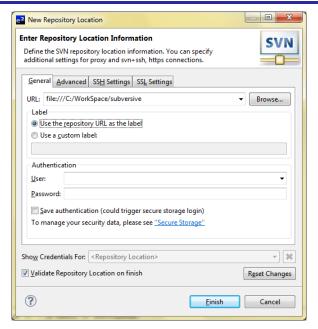
This is how the 'SVN Repository Exploring Perspective' looks like:



2.4 Create SVN Repository Location (engineer's operation)

If repository exists, do as following steps to create SVN Repository Location:

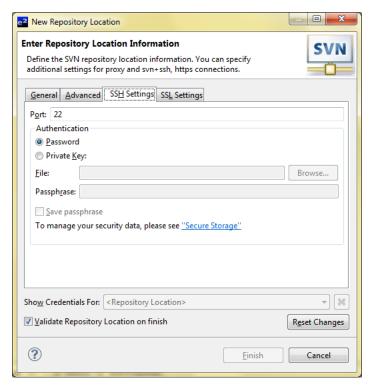
- 1. On the 'SVN Repository Exploring' perspective, 'File > New > Repository Location...' or open context menu of the 'SVN Repositories' view > 'New > Repository Location...'
- 2. On 'General' tab, fill necessary information to new repository location



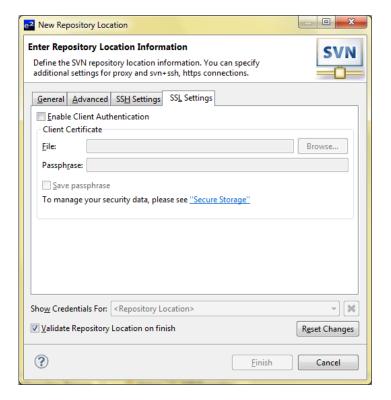
- a. URL: Specifies an URL for a new repository location.
- b. Label: Specifies which label will be used in the workspace for the repository. To use custom label choose 'Use custom label' and input the wished name into editable space.
- c. User name, Password: Input user name, password (optional).
- 3. On 'Advanced' tab (optional)
 - a. Enable Structure Detection: Specifies if the SVN should detect the structure of repository.
 - b. Trunk: Specifies trunk name to use for structure detection.
 - c. Branch: Specifies branches name to use for structure detection.
 - d. Tag: Specifies tags name to use for structure detection.
 - e. Override author name with represented below: Specifies if the author name should be overridden for repository affecting operations



- 4. On the 'SSH settings' tab (optional)
 - a. Port: Specifies port number for SSH.
 - b. Authentication: Selecting of an authentication method: 'Password' or 'Private Key'. For 'Private Key' authentication input file path and password phrase. There is also an option for to enable saving password feature.



5. On the 'SSL Settings' tab (optional)
Enable Client Authentication: Specifies if the SSL client authentication is needed



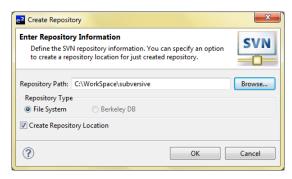
2.5 Create repository (leader/manager's operation)

If no repository exists, user has to create repository first.

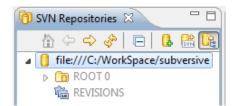
This facility provides a probability to create a new repository on local drive. There are two kinds of file system type: File System and Berkley DB which the user can select.

To create Repository:

- 1. On the 'SVN Repository Exploring' perspective, 'File > New > Repository...' or open context menu of the 'SVN Repositories' view > 'New > Repository...'
- 2. Specify 'Repository Path' > select 'Create Repository Location'



3. Press the 'Finish' button to create 'Repository' and also create 'Repository Location' in e² studio successfully

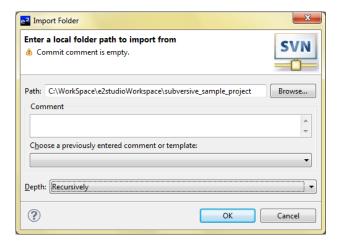


2.6 Import project to SVN (leader/manager's operation)

To import project to SVN:

2.6.1 Import project on the 'SVN Repository Exploring' perspective:

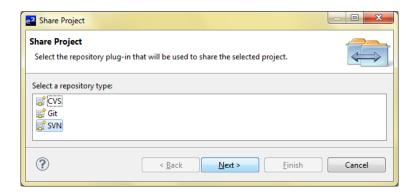
- 1. On the 'SVN Repositories' view, right click on the 'Repository Location' > 'Import...'
- 2. On the 'Import Folder' dialog, enter a local folder path to import from



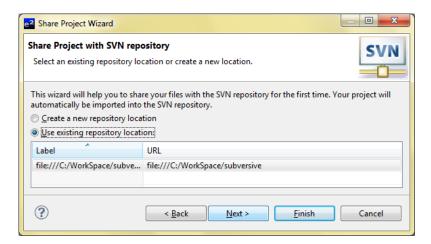
3. Press the 'OK' button to finish import folder from local to repository

2.6.2 Import project on the 'C/C++' perspective:

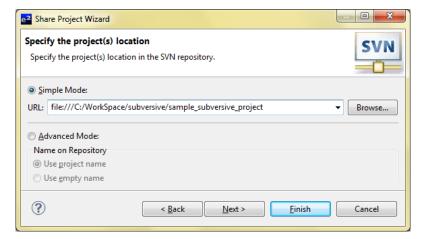
- 1. On the 'Project Explorer' view, right click on a project > 'Team' > 'Share Project...'
- 2. On the 'Share Project' dialog, select 'SVN' > press the 'Next >' button



3. On the 'Share Project Wizard' dialog, select repository location > press the 'Next >' button



4. Specify the project location > press the 'Finish' button

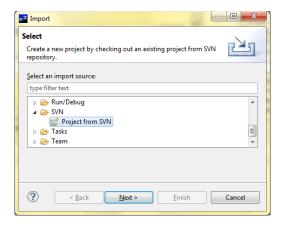


Note: It is unnecessary to checkout project if you have import project on the Project Explorer' view.

2.7 Checkout project from SVN (engineer's operation)

To checkout from SVN:

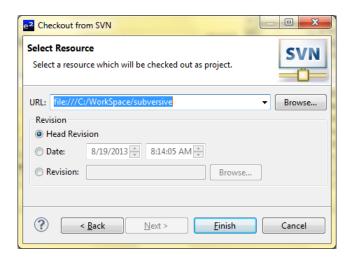
- 1. On menu items of e² studio, 'File' > 'Import...'
- 2. On the 'Import' dialog, select 'SVN' > 'Project from SVN'



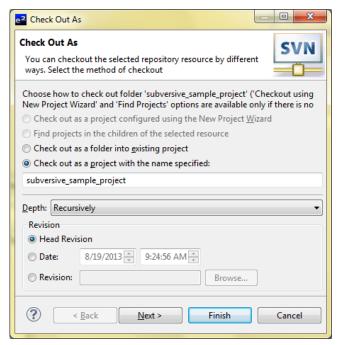
3. Press the 'Next' button > 'Checkout from SVN' dialog occur > select SVN repository which want to checkout > press the 'Next >' button



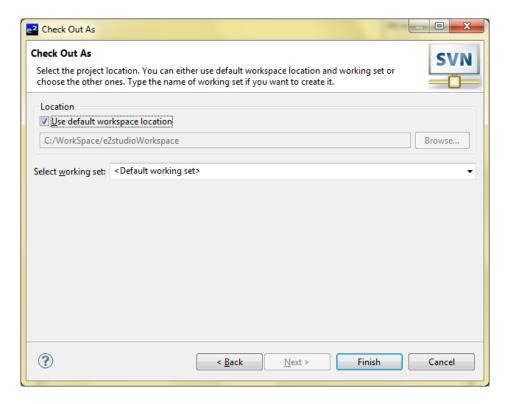
4. Select a resource which will be checked out as project > press the 'Finish' button



5. On the 'Check out As' dialog, you can check out the selected repository resource by different ways. Select the method of checkout



6. Press the 'Next >' button. Select the project location



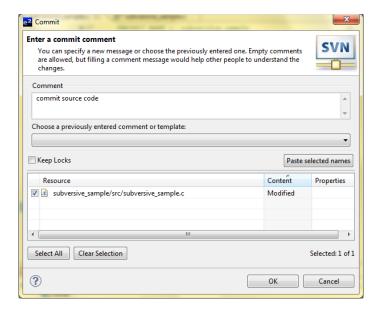
7. Press the 'Finish' button to checkout project successfully



2.8 Commit data to SVN repository (engineer's operation)

To commit data to SVN:

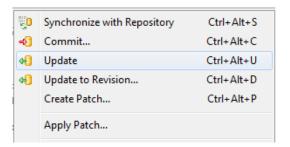
- 1. Right click on project which check out from SVN > 'Team' > 'Commit'
- 2. The 'Commit' dialog will be shown. Select data need to commit > press the 'OK' button



2.9 Synchronize with SVN repository (engineer's operation)

To update newest resource from SVN:

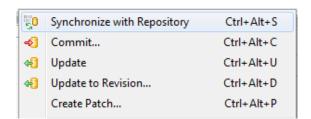
1. Right click on project or file need to update > 'Team' > 'Update'



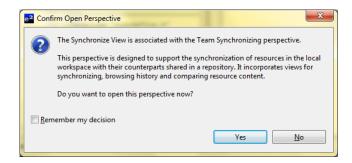
2. Data update successfully (if no conflict)

To synchronize with SVN repository (or user wants to solve conflict data):

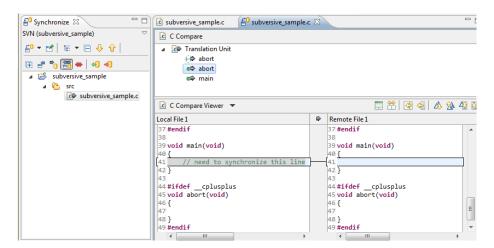
1. Right click on project or file need to synchronize > 'Team' > 'Synchronize with Repository'



2. 'Confirm Open Perspective' question dialog will be shown > press the 'Yes' button to open the 'Team Synchronizing' perspective



3. On the 'Synchronize' view, double click to a file to open 'Compare Viewer'



4. Using synchronize function in toolbar icon on 'Compare Viewer'



3. Reference Information

3.1 Web Site

SVN home page URL:

http://subversion.tigris.org/

Subversive home page URL:

http://www.eclipse.org/subversive/

Polarion home page URL:

http://www.polarion.com/

Subversive Documentation URL:

http://www.eclipse.org/subversive/documentation/index.php

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1. Handling of Unused Pins

Handle unused pins in accord 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 type 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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