



Softwareentwicklung

Praktikum

[Tutorium]

vision

& [Gruppe 21, 23]



SVN ... subversion control

allgemein

svn@TuG

Client

anwenden

commit

history

- zentraler Speicherplatz fuer alle sourcefiles
- Versionsverwaltung
- Konfliktmanagement
- Rueckkehrmoeglichkeit
- Dokumentation?





SVN Prinzip

allgemein

svn@TuG

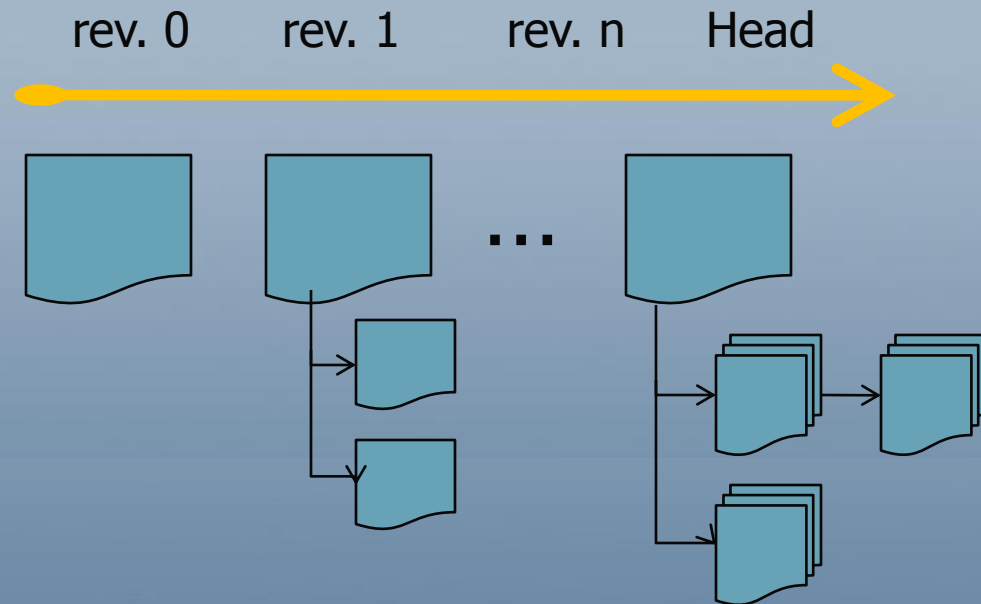
Client

anwenden

commit

history

- Software beginnt zu wachsen
- Neue Klassen, neue Methoden, ...





SVN Prinzip

allgemein

svn@TuG

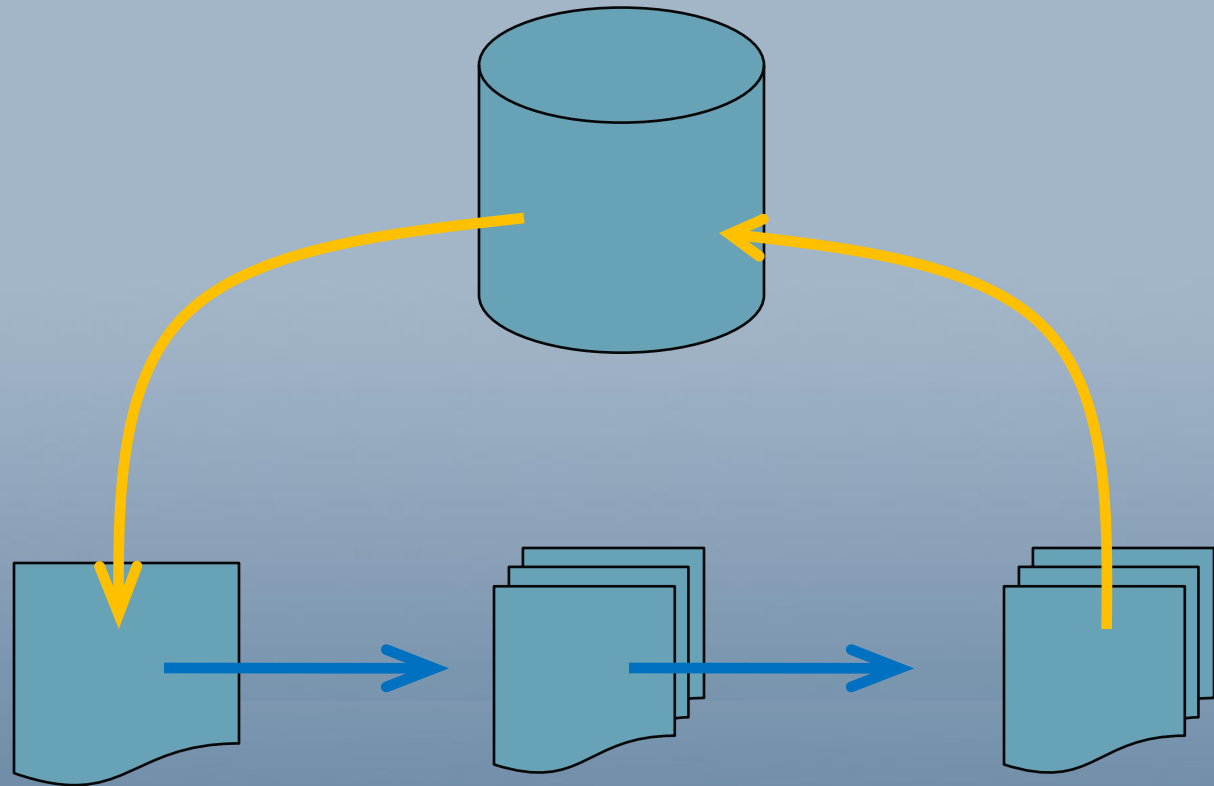
Client

anwenden

commit

history

Repository



User checkt
source aus

User editiert
source

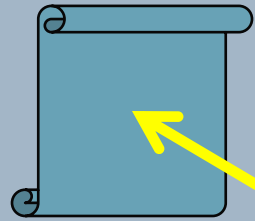
User checkt
source ein



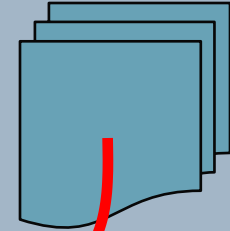
SVN Prinzip

User 2 editiert

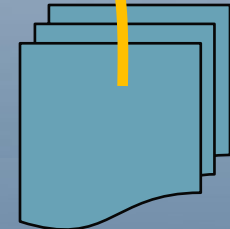
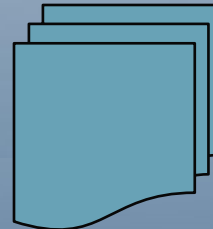
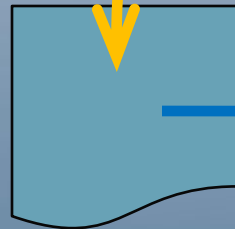
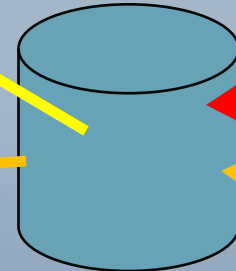
Wer hat was geändert?



source



Reporsitory



User checkt
source aus

User editiert
source

User checkt
source ein

allgemein

svn@TuG

Client

anwenden

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history



SVN via TuGonline (I)

allgemein

svn@TuG

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- Der Zid stellt einen SVN Server zur Verfügung:
 - <https://svn.tugraz.at/svn/>[reporsitory]
 - Die Namen der reporsitories sind eindeutig
 - Zugriff ueber Web und Client moeglich
 - <https://svn.tugraz.at/index.php>
 - 150Mb pro Projekt
 - User aus TuGonline importierbar
 - Nach 7 Monaten inaktiv → loeschung

SVN via TuGonline (II)

allgemein

svn@TuG

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Dienste

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Info [Weiterführende Informationen zu SVN](#)

Altinger Harald

TUG online

Neues Projekt erstellen

Info [Informationen zur SVN Projekterstellung](#)

Name	<input type="text" value="sep_altihar_demo"/>
Beschreibung	<input type="text" value="project for all programming samples within SEP 08 tutorial group altihar"/>
	178 Zeichen frei
	<input type="button" value="Speichern"/> <input type="button" value="Abbrechen"/>



SVN client

allgemein

svn@TuG

Client

anwenden

commit

history

- Integriert in das OS
 - <http://subversion.tigris.org/>
- Integriert in die IDE
 - <http://subclipse.tigris.org/>
- Anwender Hinweis
 - <http://www-128.ibm.com/developerworks/opensource/library/os-ecl-subversion/>

SVN verwenden

allgemein

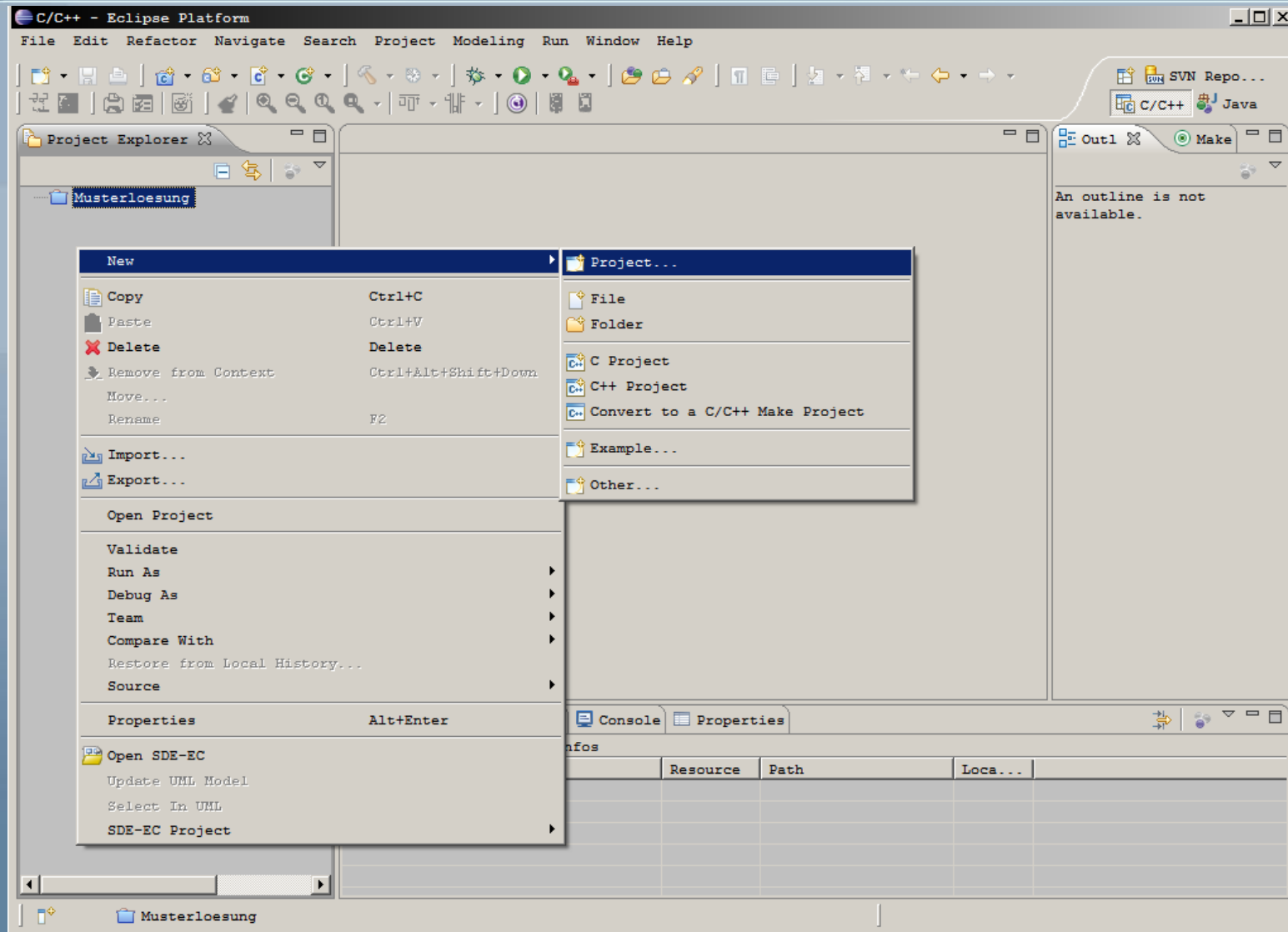
svn@TuG

Client

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SVN verwenden

allgemein

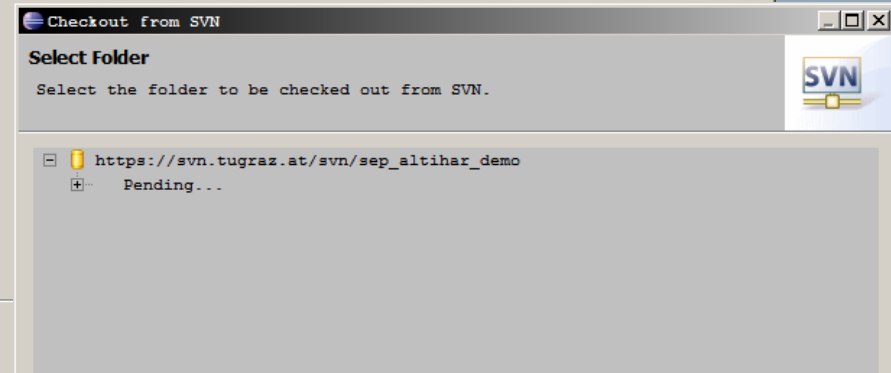
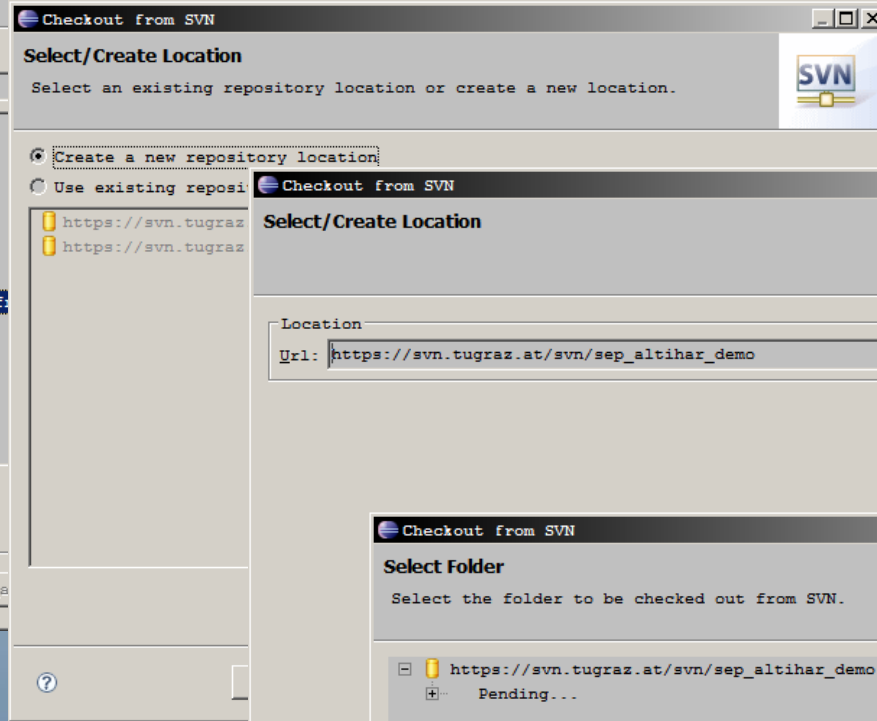
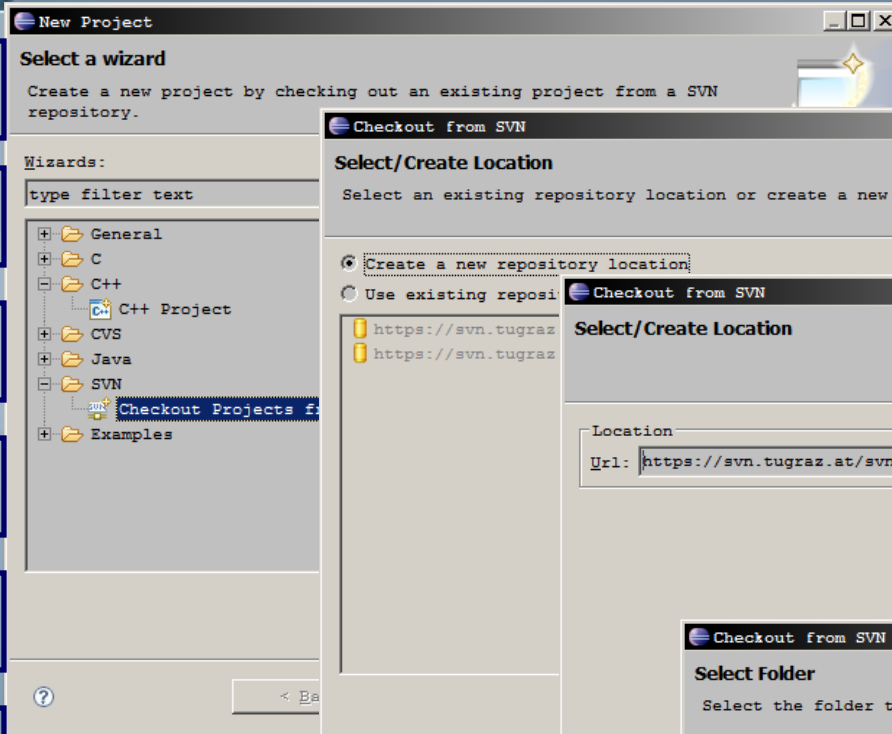
svn@TuG

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SVN verwenden

allgemein

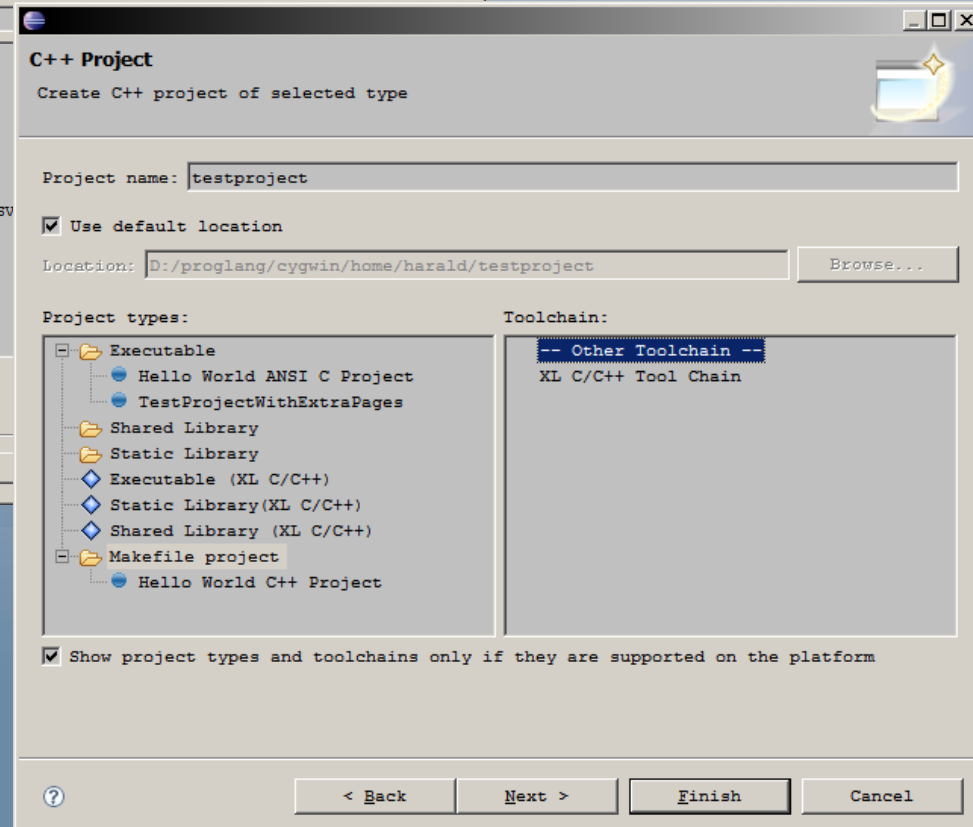
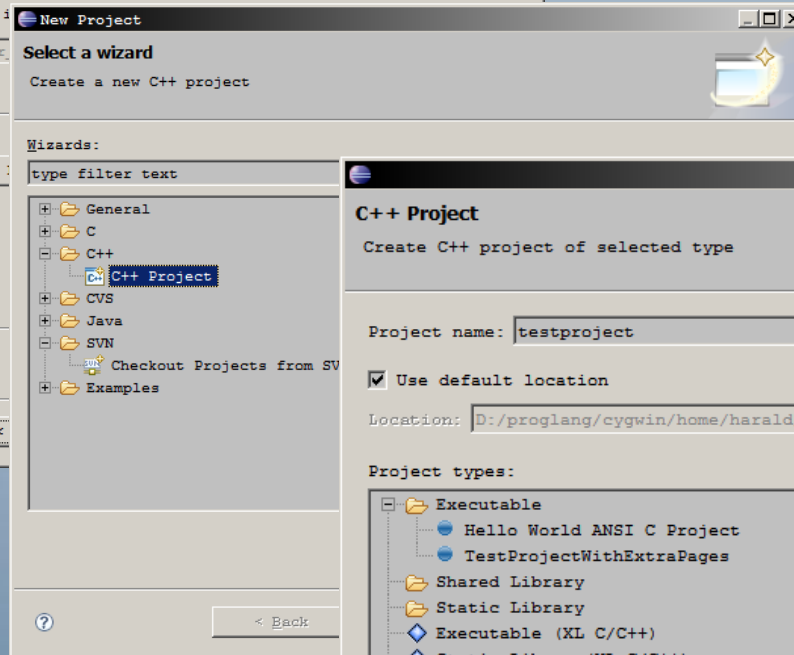
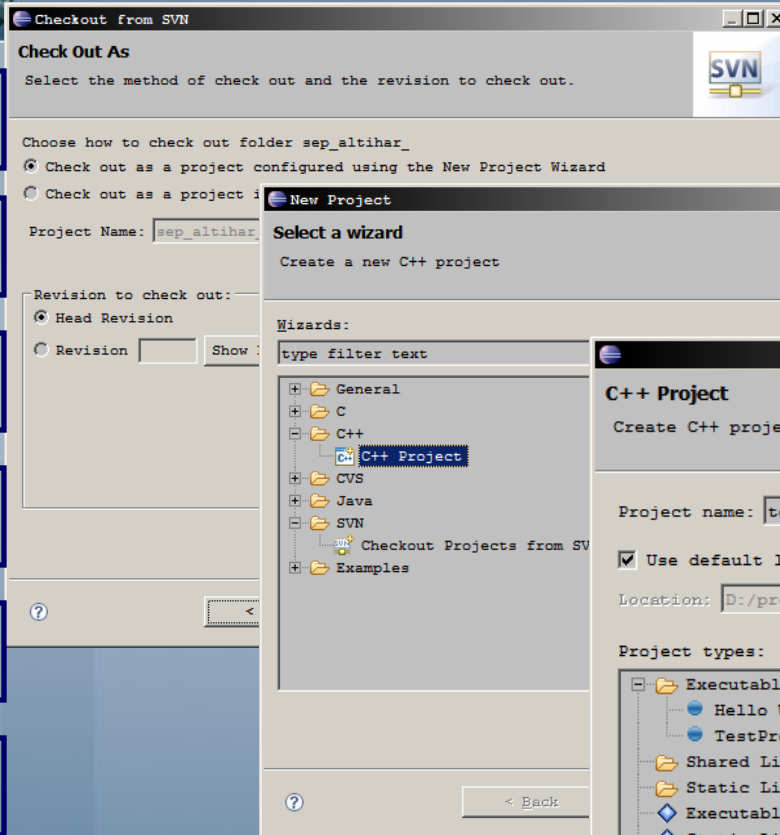
svn@TuG

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anwenden

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Svn commit / update

allgemein

svn@TuG

Client

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The screenshot shows the Eclipse IDE interface with the following components:

- Team Synchronizing - SVN (/testproject):** The main window title and menu bar (File, Edit, Navigate, Search, Run, Project, Modeling, Window, Help).
- Synchronize View:** Shows the SVN repository structure for /testproject, including header (BASE), src (BASE), .cproject, .project, main.cpp, testcase.cpp, and testcase.h.
- C Compare View:** Compares the local file (main.cpp) with the remote file (BASE). The local file contains code for a test case, including a main function and a TestProg class. The remote file is a simpler version with only the main function and includes.
- History View:** Shows the commit history for /main.cpp in the repository https://svn.tugraz.at/svn/sep_althiar_demo. The commit list is as follows:

R...	Tags	Date	Author	Comment
*1		18.02.08 19:07	althiar	generated class hull for testcase[...]

A...	Affected paths	Description
A	/.cproject	generated class hull for testcase
A	/.project	generated main function
A	/main.cpp	
A	/testcase.cpp	
A	/testcase.h	

The status bar at the bottom shows the current file is testproject/main.cpp with 1 line changed, 7 lines added, and 2 lines removed.

SVN History

allgemein

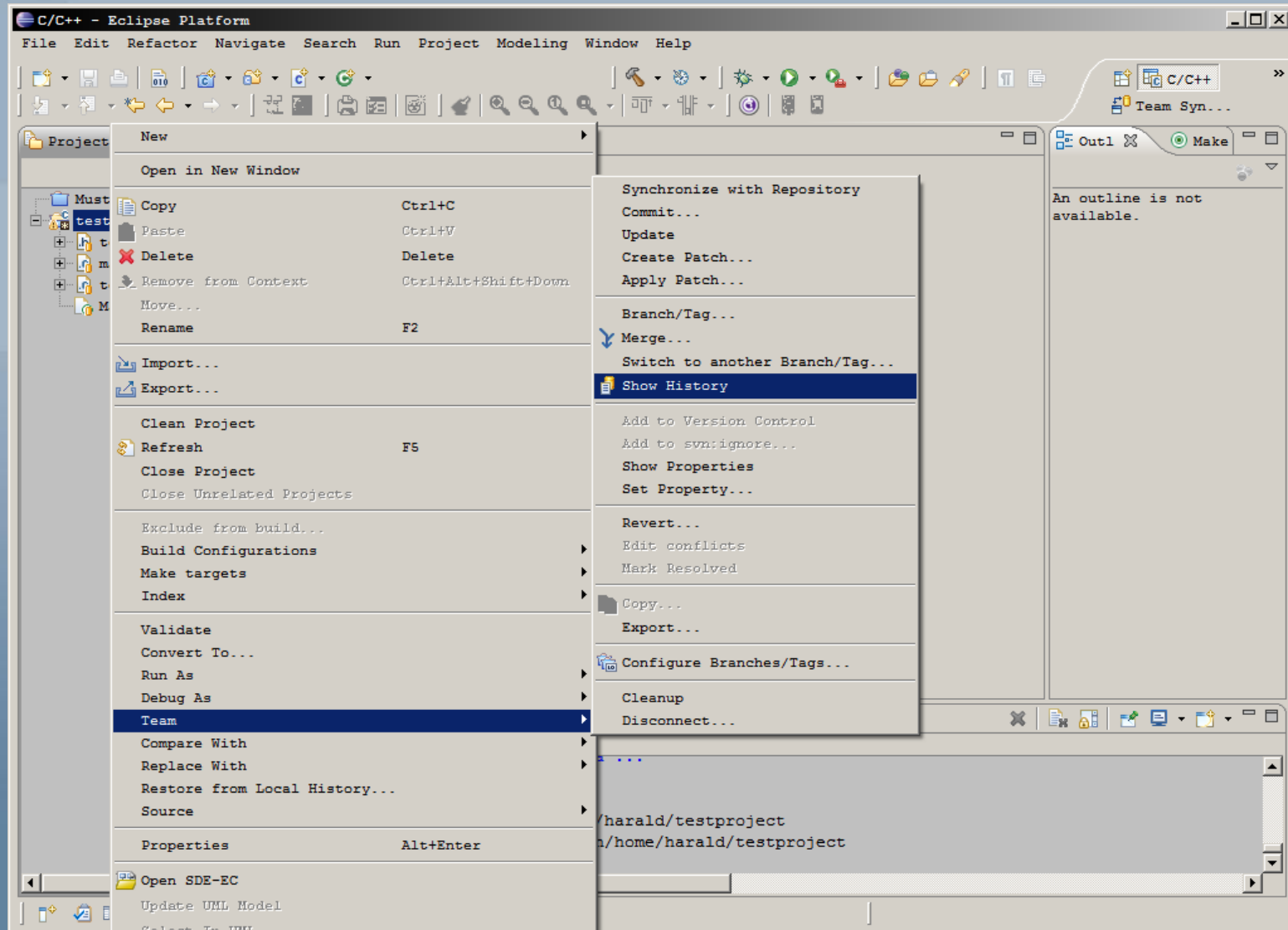
svn@TuG

Client

anwenden

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history



SVN History

allgemein

svn@TuG

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The screenshot shows an IDE interface with several windows. At the top, the 'History' window displays a list of revisions for the file 'main.cpp' in the repository 'https://svn.tugraz.at/svn/sep_altihaar_demo'. The revisions are:

R...	Tags	Date	Author	Comment
9		18.02.08 22:00	altihar	implemented test functions; [...]
*8		18.02.08 20:00	altihar	cleanup; [...]
7		18.02.08 19:57	altihar	added namespace; [...]
6		18.02.08 19:21	altihar	no need; see rev. 4

Below the history window, there are two code editors. The left editor shows 'main.cpp 7' with the following code:

```
12
13 #define MAX_INSTANCES_ 5
14
15 using std::cout;
16 using std::endl;
17
18 //-----
19 // main function to start from
20 int main()
21 {
22     int temp_value_ = 4;
23     int count_instances_;
24
25     TestProg::TestCase justSimpleTest;
26     TestProg::TestCase* pointerSimpleTest[M
27
28     //TODO: probably change to flexible array
```

The right editor shows 'main.cpp 9' with the following code:

```
1 //-----
2 /// Filename: main.cpp
3 /// Description: main class to start progr
4 /// Authors: Altinger Harald, MatNr. 063xxx
5 /// Group 16,17, Tutor altihar
6 /// Date of Creation: 2008-02-18
7 /// Last Changes: 2008-02-18
8 //-----
9
10 #include <iostream>
11 #include "testcase.h"
12
13 #define MAX_INSTANCES_ 5
14
15 using std::cout;
16 using std::endl;
17
```

At the bottom, another 'History' window shows a different view of the history for 'main.cpp' in the same repository. The revisions are:

R...	Tags	Date	Author	Comment
9		18.02.08 22:00	altihar	implemented test functions
*7		18.02.08 19:57	altihar	added namespace; [...]
1		18.02.08 19:07	altihar	generated class hull for t

Below this history window, there is a table showing affected paths and descriptions:

Ac...	Affected paths	Description
A	/.cproject	generated class hull for testcase
A	/.project	generated main function



SVN am Pluto

allgemein

svn@TuG

Client

anwenden

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history

- `svn checkout <Adresse>`
 - z.B.: `svn checkout https://svn.tugraz.at/svn/sep_demo`
- `svn update`
- `svn revert <dateiname>`
- `svn status`
- `Svn commit -m "<Kommentar>"`
 - z.B.: `svn commit -m "set MAX_INSTANCES_ to 4; improved performance / output ratio"`
- `Svn diff -r <rev>:<ref> <addrss>`
 - `svn diff -r 9:7 https://svn.tugraz.at/svn/sep_altihar_demo`



Fragen

allgemein

svn@TuG

Client

anwenden

commit

history

? Alle Klarheiten beseitigt ?

