

Controle de Versões Subversion

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Laboratório de Programação



Agenda

- **Subversion**
- **Controle de versão sem Subversion**
- **Controle de versão com Subversion**
- **Projetos Open Source**
- **Ferramentas**
 - **Tortoise**
 - **Subclipse (eclipse)**
 - **RapidSVN Portable**
- **Atividade**

Subversion

- **Sistema de Controle de Versão Open Source**
- **Ambiente multi-usuários**
- **Documentos editados por várias pessoas**



Controle de Versão Sem Subversion

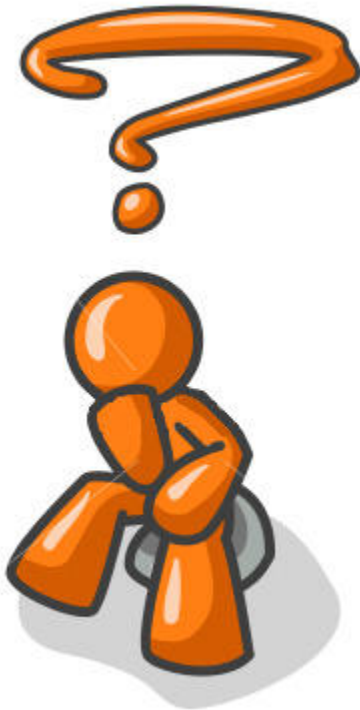


```
if (returnVal == javax.swing.JFileChooser.APPROVE_OPTION) {  
  
    java.io.File file = db.getSelectedFile();  
    String file_name = file.toString();  
  
    try {  
        ReadFile file_read = new ReadFile(file_name);  
        String[] aryLines = file_read.OpenFile();  
        int i;  
        String theText = "";  
        for (i=0; i < aryLines.length; i++) {  
            theText = theText + aryLines[i] + '\n';  
        }  
  
        taOne.setText(theText);  
    }  
    catch (java.io.IOException e) {  
  
    }  
}
```



Controle de Versão Sem Subversion

Não sabemos...



qual alteração foi feita!

quando foi feita!

quem fez!

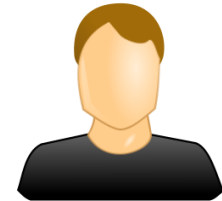
Controle de Versão Sem Subversion

```

if (returnVal == javax.swing.JFileChooser.APPROVE_OPTION) {
    java.io.File file = db.getSelectedFile();
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    }
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    }
}
    
```



```

if (returnVal == javax.swing.JFileChooser.APPROVE_OPTION) {
    [REDACTED]

    ReadFile file_read = new ReadFile(file_name);
    String[] aryLines = file_read.OpenFile();
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}
    
```

```

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    String[] aryLines = file_read.OpenFile();
    int i;
    String theText = "";
    for (i=0; i < aryLines.length; i++) {
        theText = theText + aryLines[i] + '\n';
    }

    [REDACTED]
}
}
    
```

```

if (returnVal == javax.swing.JFileChooser.APPROVE_OPTION) {
    java.io.File file = db.getSelectedFile();
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    [REDACTED]

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```

```

if (returnVal == javax.swing.JFileChooser.APPROVE_OPTION) {
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    String file_name = file.toString();

    [REDACTED]

    taOne.setText(theText);
}
catch (java.io.IOException e) {
}
}
    
```

Controle de Versão Sem Subversion

“A alteração feita pelo primeiro usuário não contém as informações feitas pelos outros usuários”

“Não temos histórico das alterações”



Controle de Versão Com Subversion

```
if (returnVal == javax.swing.JFileChooser.APPROVE_OPTION) {  
  
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        int i;  
        String theText = "";  
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            theText = theText + aryLines[i] + '\n';  
        }  
  
        taOne.setText(theText);  
    }  
    catch (java.io.IOException e) {  
  
    }  
}
```



Revisão 2

Revisão 3

Revisão 4

Revisão 5

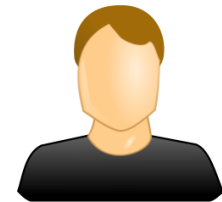


Revisão 2

Revisão 5



Revisão 3

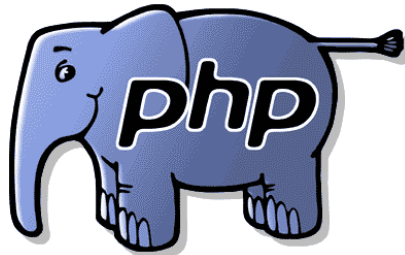


Revisão 4

Controle de Versão Com Subversion

- Banco de dados apenas com as alterações e não todo documento;
- Sabemos quem, quando, o que e porque foi realizada a alteração;
- Comparar revisões diferentes (diff);
- Voltar para versão anterior sem perder a atual;
- Backup automático;
- Gerenciamento de qualquer tipo de documento.

Projetos Open Source



Como usar?

Tortoise SVN



Subclipse (eclipse)



RapidSVN Portable





Tortoise Browser

The screenshot shows the TortoiseBlame application window. The address bar displays the path `X:\TortoiseSVN\src\TortoiseBlame`. The left sidebar shows a file tree with the following structure:

- CD-RW Drive (E:)
- DVD Drive (F:)
- Data (X:)
 - Download
 - Screenshots
 - Subversion
 - TortoiseSVN
 - contrib
 - doc
 - ext
 - Languages
 - src
 - crashrpt
 - ResizableLib
 - Resources
 - ResText
 - SubWCRev
 - SVN
 - TortoiseBlame
 - TortoiseLang
 - TortoiseMerge
 - TortoisePlink
 - TortoiseProc
 - TortoiseShell
 - TortoiseSVNSetup
 - TSVNCache
 - Utils

- Control Panel
- My Network Places

The main pane displays a table of files with columns: Name, Author, SVN Status, and SVN Revision. A context menu is open over the 'TortoiseSVN' folder, showing options such as 'Open', 'Scan with OfficeScan Client', 'SVN Update', 'SVN Commit...', 'TortoiseSVN' (expanded), 'UltraEdit-32', 'WinRAR', 'Send To', 'Cut', 'Copy', 'Create Shortcut', 'Delete', 'Rename', 'Properties', 'Diff', 'Show Log', 'Repo-Browser', 'Check for Modifications', 'Revision Graph', 'Update To Revision...', 'Rename...', 'Delete', 'Revert...', 'Get Lock...', 'Branch/Tag...', 'Switch...', 'Merge...', 'Blame...', 'Create Patch...', 'Help', 'Settings', and 'About'.

Name	Author	SVN Status	SVN Revision
Makefile	steveking	modified	1701
resource	steveking	normal	1640
small.ico	steveking	normal	1690
Tortoise	steveking	normal	2419
Tortoise	steveking	normal	2419
Tortoise	luebbe	normal	1750
Tortoise			1640
Tortoise			2510

Shows information about TortoiseSVN

Tortoise Merging

SysImageList.cpp - TortoiseMerge

File Edit Navigate View Help

SysImageList.cpp

```

56
57 SHGetFileInfo(
58     T("Doesn't matter"),
59     FILE_ATTRIBUTE_DIRECTORY,
60     &sfi, sizeof sfi,
61     SHGFI_SYSICONINDEX | SHGFI_SMALLICON | SHG
62
63     return sfi.iIcon;
64 }
65
66 int CSystemImageList::GetDefaultIconIndex() const
67 {
68     SHFILEINFO sfi;
69     // clear the struct
70     ZeroMemory(&sfi, sizeof sfi);
71
72     SHGetFileInfo(
73         T(""),
74         FILE_ATTRIBUTE_NORMAL,
75         &sfi, sizeof sfi,
76         SHGFI_SYSICONINDEX | SHGFI_SMALLICON | SHG
77

```

SysImageList.cpp

```

55
56 SHGetFileInfo(
57     T("blablab"),
58     FILE_ATTRIBUTE_DIRECTORY,
59     &sfi, sizeof sfi,
60     SHGFI_SYSICONINDEX | SHGFI_USEFILEATTRIB
61
62     return sfi.iIcon;
63 }
64 void CSystemImageList::Test()
65 {
66     RunTests();
67 }
68
69 int CSystemImageList::GetDefaultIconIndex() const
70 {
71     SHFILEINFO sfi;
72     ZeroMemory(&sfi, sizeof sfi);
73
74     SHGetFileInfo(T(""), FILE_ATTRIBUTE_NORMAL,
75

```

» » FILE_ATTRIBUTE_DIRECTORY, ↵
» » FILE_ATTRIBUTE_DIRECTORY, ↵

For Help, press F1. Scroll horizontally with Ctrl-Scrollwheel

Left View: ASCII CRLF / - 16 | Right View: ASCII CRLF / + 15 | Conflicts: 0 | CAP NUM| SCRL |



Subclipse

The screenshot shows the Subclipse 'SVN Repository Exploring' window. On the left, a tree view shows the repository structure: `http://subclipse.tigris.org/svn` with subfolders `branches`, `tags`, `trunk`, and `subclipse`. Under `subclipse`, there are folders for `book`, `book-f`, `core`, `featur`, `javahl`, `test`, `ui`, `update`, `svnant`, `svnClientA`, and `www`. A context menu is open over the `core` folder, listing actions like 'New', 'Show in Resource History', 'Create Unified Diff', 'Checkout...', 'Export...', 'Import...', 'Rename/move...', 'Branch/Tag...', 'Copy', 'Paste...', 'Delete...', 'Copy URL to Clipboard', 'Properties', and 'Refresh View'. The 'Checkout...' option is highlighted. In the background, the 'SVN Resource History' table is visible, showing revision details for the `core` folder.

Rev...	Tags	Date	Author	Comment
1880		12/5/05 10:12 PM	markhip	Suppress logging of exceptions from s...
1876	0.9.101	12/5/05 9:24 AM	markhip	Bump revision to 0.9.101
		12/5/05 6:59 AM	fcoffee	Updated Chinese localization.
		12/4/05 11:06 AM	markhip	Further refinement of reporting of com...
		12/4/05 10:51 AM	markhip	Followup to previous commit. Change...
		12/3/05 9:34 PM	markhip	Fixed bug when committing via JavaSV...
		12/2/05 2:23 PM	markhip	Fix a potential NPE when the svn meta...
		12/2/05 1:33 PM	markhip	Throw an exception if user tries to mo...
		12/2/05 1:09 PM	markhip	Fix a potential NPE in SVNNotificationH...
		12/2/05 10:56 AM	markhip	Remove command line adapter as a Su...
		12/1/05 4:27 PM	markhip	When a Synchronization is pinned and ...
		12/1/05 11:55 AM	markhip	Bump revision to 0.9.100
		12/1/05 11:29 AM	markhip	Added code so that the svn:author an...
		12/1/05 10:53 AM	markhip	Added a workaround for "svn:author an...

Below the table, a snippet of commit comments is visible:

```
Milestone 1 of new branch/tag support.
```

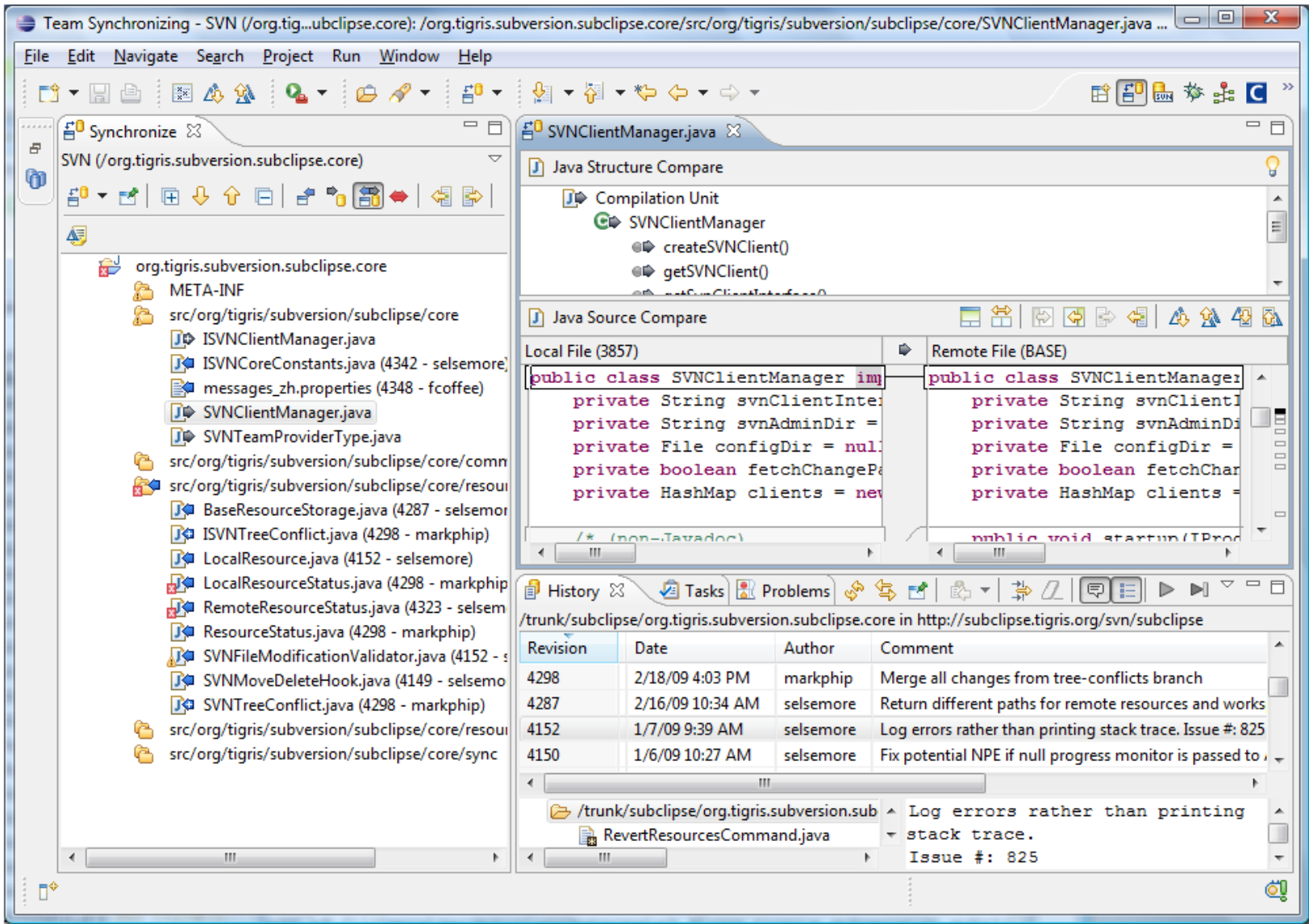
```
Added support for a new subclipse:tags property that contains a list of values in this format:
```

```
revnum,tag_name,relative_path,b
```

```
branch/tag
```

The status bar at the bottom shows the current path: `/trunk/subclipse/core` in `http://subclipse.tigris.org/svn/subclipse`.

Subclipse



The screenshot shows the Subclipse IDE interface. The left sidebar displays the project structure for 'org.tigris.subversion.subclipse.core'. The main editor area shows a comparison between a local file (revision 3857) and a remote file (BASE) for 'SVNClientManager.java'. The code is as follows:

```

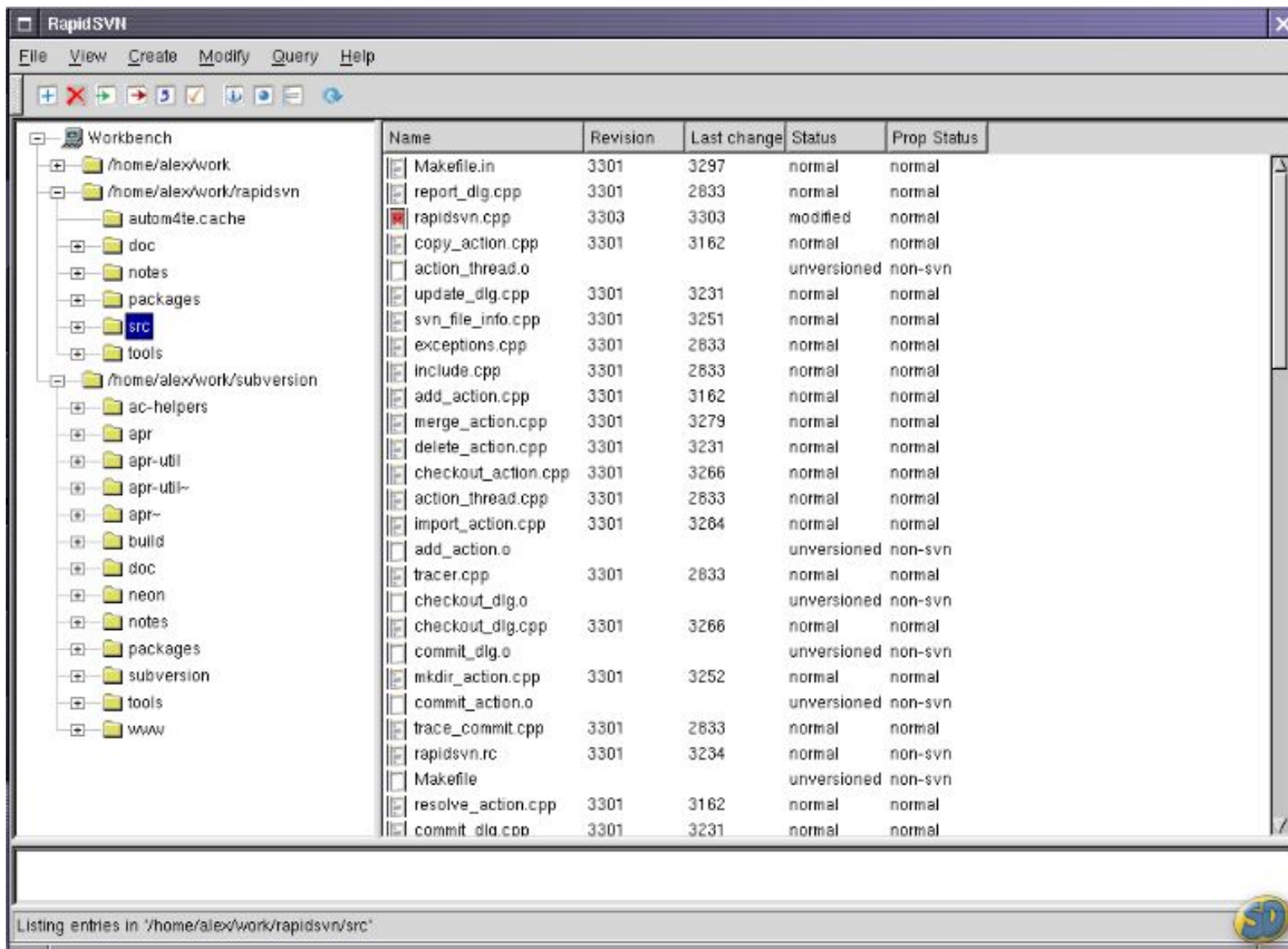
public class SVNClientManager implements SVNClientInterface {
    private String svnClientInte...
    private String svnAdminDir = ...
    private File configDir = null...
    private boolean fetchChangePa...
    private HashMap clients = new...
}
    
```

At the bottom, the History view shows a list of revisions:

Revision	Date	Author	Comment
4298	2/18/09 4:03 PM	markhip	Merge all changes from tree-conflicts branch
4287	2/16/09 10:34 AM	selsemore	Return different paths for remote resources and works
4152	1/7/09 9:39 AM	selsemore	Log errors rather than printing stack trace. Issue #: 825
4150	1/6/09 10:27 AM	selsemore	Fix potential NPE if null progress monitor is passed to



RapidSVN Portable



The screenshot shows the RapidSVN application window. The title bar reads "RapidSVN". The menu bar includes "File", "View", "Create", "Modify", "Query", and "Help". Below the menu bar is a toolbar with various icons. The main area is divided into two panes. The left pane shows a tree view of the file system, with the "src" directory under "/home/alex/work/rapidsvn" selected. The right pane displays a table of files and their properties.

Name	Revision	Last change	Status	Prop Status
Makefile.in	3301	3297	normal	normal
report_dlg.cpp	3301	2833	normal	normal
rapidsvn.cpp	3303	3303	modified	normal
copy_action.cpp	3301	3162	normal	normal
action_thread.o			unversioned	non-svn
update_dlg.cpp	3301	3231	normal	normal
svn_file_info.cpp	3301	3251	normal	normal
exceptions.cpp	3301	2833	normal	normal
include.cpp	3301	2833	normal	normal
add_action.cpp	3301	3162	normal	normal
merge_action.cpp	3301	3279	normal	normal
delete_action.cpp	3301	3231	normal	normal
checkout_action.cpp	3301	3266	normal	normal
action_thread.cpp	3301	2833	normal	normal
import_action.cpp	3301	3264	normal	normal
add_action.o			unversioned	non-svn
tracer.cpp	3301	2833	normal	normal
checkout_dlg.o			unversioned	non-svn
checkout_dlg.cpp	3301	3266	normal	normal
commit_dlg.o			unversioned	non-svn
mkdir_action.cpp	3301	3252	normal	normal
commit_action.o			unversioned	non-svn
trace_commit.cpp	3301	2833	normal	normal
rapidsvn.rc	3301	3234	normal	non-svn
Makefile			unversioned	non-svn
resolve_action.cpp	3301	3162	normal	normal
commit_dlg.cpp	3301	3231	normal	normal

Listing entries in '/home/alex/work/rapidsvn/src'

Atividade

- **Criar os projeto no [Google code](#)**
- **Instalar ferramenta para controle de versão**
- **Colocar relatório no repositório**
- **Criar páginas wiki com cada sessão do relatório**
 - **Requisitos Funcionais**
 - **Requisitos Não-Funcionais**
 - **Casos de Uso**

