Revision Analyser v1.0

User Manual

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1 Installation

Before you install Revision Analyser, it is a good idea to first check the system requirements and installation walkthrough in this chapter.

1.1 System requirements

Revision Analyser will run on any modern PC with Windows 7 or Vista installed. You will need to have version 4.0 installed of the Microsoft .NET Framework. Some project types also require the Java Runtime Environment to be installed. You may however decide to not install these project types.

1.2 Installation walkthrough

We will now go through the installation process step-by-step. The setup will give an error when .NET Framework 4.0 is not installed, so make sure to have it installed before you start.



Figure 1: Welcome dialog of the installation.

The installation starts with the screen shown in Figure 1. Just press Next to continue.

弱 Setup - Revision Analyser	
Select Destination Location Where should Revision Analyser be installed?	
Setup will install Revision Analyser into the following folder.	
To continue, click Next. If you would like to select a different folder, click	Browse.
C:\Program Files (x86)\Revision Analyser	Browse
At least 22,4 MB of free disk space is required.	
< <u>B</u> ack Next >	Cancel

Figure 2: Select Destination Location dialog.

You should now select a destination location in which you want Revision Analyser to be installed (Figure 2). You can just leave this to its default and press Next to continue.

🔂 Setup - Revision Analyser	
Select Components Which components should be installed?	
Select the components you want to install; clear the components you do install. Click Next when you are ready to continue.	o not want to
 Application Files SolidSX2 - Required component for visualization. User Manual - User manual for Revision Analyser (PDF file). Recoder Plugin - Project type for Java/SVN analysis. Sourcerer Plugin - Project type for the open-source project Sourcer 	er.
Current selection requires at least 22,4 MB of disk space.	
< <u>Back</u> <u>Next</u> >	Cancel

Figure 3: Select Components dialog.

The Select components screen (Figure 3) allows you to select the components you would like to install. Please note that the *SolidSX2* component can only be selected when it is not yet installed on your computer. The *Recorder Plugin* component is only visible when you have the Java Runtime Environment installed on your computer. Press Next to continue after you made your selection.

📴 Setup - Revision Analyser	X
Select Start Menu Folder Where should Setup place the program's shortcuts?	
Setup will create the program's shortcuts in the following Start M	1enu folder.
To continue, dick Next. If you would like to select a different folder, dick	Browse.
Revision Analyser	Browse
Don't create a Start Menu folder	
< Back Next >	Cancel

Figure 4: Select Start Menu Folder dialog.

In the Select Start Menu folder dialog (Figure 4) you can select the folder in which you want the start menu icons to be placed. If you do not want these icons to be created, you can check the "Don't create a Start Menu folder" box. Press Next to continue.

🔂 Setup - Revision Analyser	
Select Additional Tasks Which additional tasks should be performed?	
Select the additional tasks you would like Setup to perform while installin Analyser, then click Next.	g Revision
Create a desktop icon	
< <u>B</u> ack Next >	Cancel

Figure 5: Select Additional Tasks dialog.

You can also allow the installation to create a desktop icon for you. You can do this by checking the "Create a desktop icon" box in the Select Additional Tasks window (Figure 5). Press Next to continue.

i	Setup - Revision Analyser	• X
	Ready to Install Setup is now ready to begin installing Revision Analyser on your computer.	
	Click Install to continue with the installation, or click Back if you want to review or change any settings.	
	Destination location: C:\Program Files (x86)\Revision Analyser	Â
	Setup type: Custom Selected components:	E
	Application Files SolidSX2 - Required component for visualization. User Manual - User manual for Revision Analyser (PDF file). Recoder Plugin - Project type for Java/SVN analysis. Sourcerer Plugin - Project type for the open-source project Sourcerer	
	<	•
	< <u>B</u> ack Install	Cancel

Figure 6: Ready to Install dialog.

Finally, the Ready to Install dialog will be shown (Figure 6). It contains a review of the settings you selected during the installation wizard. Press Install to start the installation. It can take a few minutes before the installation is finished, depending on the options you selected to install.

2 Getting started

This chapter will guide you through the functionalities of Revision Analyser. After following this guide you should have a good understanding of how the application works.

2.1 Creating a new project

We will start of by creating a new Revision Analyser project. After you started Revision Analyser, click on File > New Project... or press Ctrl+N to create a new project (Figure 7).



Figure 7: New Project... menu.

This will show the New Project dialog (Figure 8). For this guide, we will create a Recoder project. There might be other project types available as well, such as Sourcerer. Type in a name for your project, select a location where the project files should be stored (this will be automatically filled in by Revision Analyser), and press OK to create the project.



Figure 8: New Project dialog.

The first time you create a project in Revision Analyser, you will get to see the Global Variable screen shown in Figure 9. It will ask you for the location of the SolidSX2 executable. Revision Analyser will try to automatically find the correct path for you (which is usually C:\SolidSX\bin). Press OK to continue.

Global Variable	
The global van below.	iable 'SOLIDSX_PATH' is not yet configured. Please enter a value for it
<u>N</u> ame:	SOLIDSX_PATH
<u>V</u> alue:	C:\SolidSX\bin

Figure 9: Global Variable dialog.

If, for some reason, SolidSX2 does not start, you might want to check the licensing information for this application. Close Revision Analyser and start SolidSX2 manually via Start > Applications > SolidSource > SolidSX > SolidSX. You will get to see the License wizard (Figure 10). Here you can buy a license for SolidSX or request a 30-day trial license. After you registered a valid license file, you can restart Revision Analyser and continue with this guide.



Figure 10: SolidSX2 License wizard.

A Recorder project will show its own settings dialog after you create a project of this type (Figure 11). In this dialog you can configure the URL, username and password of the SVN server. You can test these settings right away by clicking on the 'Test Connection' button. In the Recoder Project Settings dialog you can also add JAR libraries or paths containing JAR files that are required for a proper analysis.

Re	ecoder Project Settin	gs 📃 💌
	SVN JAR Librarie	s JRL of the SVN server below. If needed, you can also specify an
	URL: Username: Password:	
		Show the password I typed
		<u>QK</u> <u>Cancel</u>

Figure 11: Recoder Project Settings dialog.

When the SVN server uses a SSL connection, you will get to see the dialog box in Figure 12 after you press 'Test Connection'. Here you have to verify the SSL certificate. Press Yes to accept it, or No to reject it. When you reject it, you will be unable to use this SVN server for the project.



Figure 12: SSL certificate error dialog.

2.2 Manage revisions

Now that the SVN server is configured, we can start to fetch revisions from the revision server. Open the Manage SVN Revisions dialog (Figure 13) by clicking on the Project > Manage SVN Revisions... menu item or by pressing Ctrl + M.

Revision	Author	Date	Message	
0		4-10-2010 19:00:58		
10	Mark	6-10-2010 23:12:39	- Added LEDs support	
20	johan	11-10-2010 12:57:48	nieuwste versie	
30	johan	12-10-2010 13:19:23		
40	johan	17-10-2010 20:39:26		
50	johan	19-10-2010 10:46:09		
60	johan	19-10-2010 12:54:39		
70	Mark	25-10-2010 12:20:37	AddSensor	
80	johan	26-10-2010 10:46:02		
90	johan	26-10-2010 23:37:54	minimize widget works!	
Add	Delete			QK Cano

Figure 13: Manage SVN Revisions dialog.

2.2.1 Adding revisions

We will start off by adding revisions to the project. Press the 'Add...' button in the Manage SVN revisions dialog. This will open the Add SVN Revision(s) dialog (Figure 14).



Figure 14: Add SVN Revision(s) dialog.

In this dialog we can search for revisions on the SVN server. You can select a date range and press Search to show revisions that were committed within that range. You might want to limit the search results to a maximum of 100 (or more) to speed up the process. You can also search using multiple date ranges by pressing the 'Advanced...' button. This will open the Advanced Search dialog (Figure 15).

Advanced	l Search	-	-	-		X
You car	add multiple d	ate rang	es to y	our search qu	ery belov	v
From:	13-10-2010		To:	16-10-2010		Add
Start	Date		End	Date		
4-10- 13-10	2010 -2010		8-10 16-1	-2010 0-2010		
De	ete			Limit search	results: arch	100 ▼ <u>C</u> ancel

Figure 15: Advanced Search dialog.

After you have searched for SVN revisions, you must select the revisions that you want to analyse. There are three selection methods available:

- **Select All**: this will select all SVN revisions for analysis.
- Select %: this will select a given percentage of SVN revisions (see Figure 16). By default this is set to 10%, but you can change this yourself.
- **Select None**: this will remove all selections that you made.



Figure 16: Select Percentage dialog.

Figure 17 shows an example of how the selection might look like in the end. In this screenshot, revision 5 is selected to be analysed. Revisions 0 and 10 were already analysed before, and therefore have gray text and cannot be selected again. Press 'Add' to add the revisions you selected to the Manage SVN Revisions dialog (Figure 13). Please note that the 'Add' button is only enabled after you have selected at least one revision. Press 'OK' in the Manage SVN Revisions dialog to start the analysis.

	Revision	Author	Date	Message
	0		4-10-2010 19:00:58	
	1	johan	4-10-2010 19:03:00	1e revisie
	2	johan	4-10-2010 19:03:42	bin en obj hoeven niet op SVN
	3	johan	5-10-2010 12:36:16	Login functies enz.
	4	johan	5-10-2010 13:04:58	Admin gedeelte
V	5	johan	5-10-2010 18:30:18	Login fix
	6	johan	6-10-2010 13:10:41	added Divan and Netwonsoft. Json libraries
	7	johan	6-10-2010 13:12:02	added references to libraries
	8	johan	6-10-2010 14:52:45	
	9	Mark	6-10-2010 21:45:51	- SensorInterface Atmel software
	10	Mark	6-10-2010 23:12:39	- Added LEDs support
	11	johan	7-10-2010 14:08:32	Divan wordt nu nog gebruikt

Figure 17: Overview of the selected revisions.

2.2.2 Deleting revisions

If, for some reason, you would like to delete a revision, you can do this in the Manage SVN Revisions dialog (Figure 17). Revisions that you added for analysis in the previous paragraph, are noted with a green plus (+) sign in front of them. You can delete these revisions right away by selecting them and pressing the 'Delete' button. Revisions that were already analysed before, can also be deleted the same way, but will get a red minus (-) sign in front of them. You can also revert this by pressing 'Undelete'. Press 'OK' to apply the changes.

F	Revision	Author	Date	Message	
(0		4-10-2010 19:00:58		
	10	Mark	6-10-2010 23:12:39	- Added LEDs support	
- 1	20	johan	11-10-2010 12:57:48	nieuwste versie	
1	30	johan	12-10-2010 13:19:23		
	40	johan	17-10-2010 20:39:26		
) :	50	johan	19-10-2010 10:46:09		
6	60	johan	19-10-2010 12:54:39		
1	70	Mark	25-10-2010 12:20:37	AddSensor	
	80	johan	26-10-2010 10:46:02		
9	90	johan	26-10-2010 23:37:54	minimize widget works!	
) !	5	johan	5-10-2010 18:30:18	Login fix	
)	7	johan	6-10-2010 13:12:02	added references to libraries	
) (8	johan	6-10-2010 14:52:45		
)	13	Mark	7-10-2010 18:55:43		

Figure 17: Deleting SVN revisions.

2.2.3 Task log

Whenever you add or delete one or multiple revisions, you will get to see the Task Log (Figure 18) after you press 'OK' in the Manage SVN Revisions dialog. In this Task Log you get to see a detailed overview of the progress of the tasks that have to be performed. You can only close the Task Log after all tasks have been completed.

lorking on tas	ws a log of the tasks that have to be processed. After the tasks are finished, you may export it to a HIML file.
Time	Event
12:31:01	Starting RemoveTask (1/7)
12:31:01	Removed SVN revision 50
12:31:01	Starting RemoveTask (2/7)
12:31:01	Removed SVN revision 80
12:31:01	Starting AddTask (3/7)
12:31:01	Checkout/Update started
12:31:03	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture
12:31:06	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\SensorViewArchitecture.pdf
12:31:07	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\SensorViewArchitecture.synctex.gz
12:31:07	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\SensorViewArchitecture.aux
12:31:08	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\tempfile.tmp
12:31:08	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\SensorViewArchitecture.tex
12:31:08	Add: C: \Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\SensorViewArchitecture.log
12:31:08	Add: C: \Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\Visio
12:31:10	Add: C:\Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\Visio\MultiTierArchitecture.pdf
12:31:11	Add: C: \Users\Johan\Documents\Revision Analyser\RecoderProject\SVN\Architecture\Visio\DemoWeb.pdf
_	

Figure 18: Task Log dialog.

2.3 Using the revision timeline

After you have added one or more revisions to the project, you can start using the revision timeline. The revision timeline (shown in Figure 19) allows you to easily select a revision that you want to show in the SolidSX2 component. You can do this by simply clicking near the revision that you want to show. The application will automatically select the revision that is the nearest to your mouse click.



Figure 19: Revision timeline.

3 Other functionalities

This chapter discusses functionalities that do not fit within the other chapters.

3.1 Application settings

The Tools > Options menu item in Revision Analyser will open the Options dialog (see Figure 20). Here you can add, edit or delete global variables used across project types. For example, if you move SolidSX2 to another location, you will have to change the global variable for this.

Opt	ions		×
6	Global Variables		
	Name	Value	<u>A</u> dd
	JAVA_PATH SOLIDSX_PATH	C:\Windows\system32\ C:\SolidSX\bin	Edit Delete
			<u>Q</u> K <u>Cancel</u>

Figure 20: Options dialog.

3.2 View loaded plug-ins

You can view the currently loaded plugins by clicking on Help > About Revision Analyser. In the About screen, press the 'Plug-ins...' button to open the Plug-ins dialog (Figure 21). In this dialog you can see the loaded plug-ins and more information for each of the plug-ins.

Plug-ins		×
Loaded plug-ins: Recoder Sourcerer	Plug-in information: Name: Recoder Description: Recoder is a Java framework for source code metaprogramming aimed to deliver a sophisticated infrastructure for many kinds of Java analysis and transformation tools. Copyright: © 2011 Johan van der Geest and Mark Ettema Version:	*
	Qose	Ŧ

Figure 21: Plug-ins dialog.

Have you ever heard of the Konami code? Why not give it a try in the About dialog!