AlgaeBioGas

Algal treatment of biogas digestate and feedstock production

D7.9

Project website

PUBLIC

Contract	ECO/12/333018
Instrument	CIP Eco-innovation - Pilot and market replication projects
Call Identifier	CIP-EIP-Eco-Innovation-2012
Project website	http://algaebiogas.eu/
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1 Summary and Objectives

1.1 Project abstract

AlgaeBioGas project is focused to market introduction of algal-bacterial treatment of biogas digestate and feedstock production, an innovative technology which has significant economic and environmental benefits to biogas operators. Within the Eco-innovation project we are setting-up the first application as a demonstration centre and preparing all prefabricated technology, organization and marketing tools to market replication projects. The technology demonstration centre will not only be able to demonstrate the technology in full size at a demanding customers site, but also provide on-site support for customer's testing, analysis, evaluation, training and other activities required as part of a complex project.

1.2 Project website

The purpose of this report is to introduce the content and outlook of the AlgaeBioGas website and its functionalities both for visitors and project partners. We will post all of the data that can be made publicly accessible on the web site. At this moment and due to small consortium size we do not expect that the web site will have any intra-project communication role, but this may change. The intra-project file storage is organized as a version controlled common file repository. The consortium is asked to deliver this report as Deliverable 7.9 under Work Package 7 (Dissemination Activities) at Month 6.

The project website URL is http://www.algaebiogas.eu/.

2 Construction of the Website Portal

2.1 Acquisition of domain names

The following candidates have been checked:

suffix	algaebiogas	algae-biogas	Motivation
.eu			Natural choice since algaebiogas is an EU project
.com	taken		Common use, especially in US
.net	taken		Common use
.org			Common use
.si			For the domicile of the partners
.de			The most promising and largest market

We registered all above available domain names.

We investigated the option to purchase the algaebiogas.com domain, which is parked, but the asking price was USD 4449 - which we estimated to be too expensive. AlgaeBioGas is now "surrounded" by a single entity (us), so the parking organization may either decide that the domain is not worth much when surrounded and lower the price, or they decide there is a definite target for the domain and raise the price. Only time will tell.
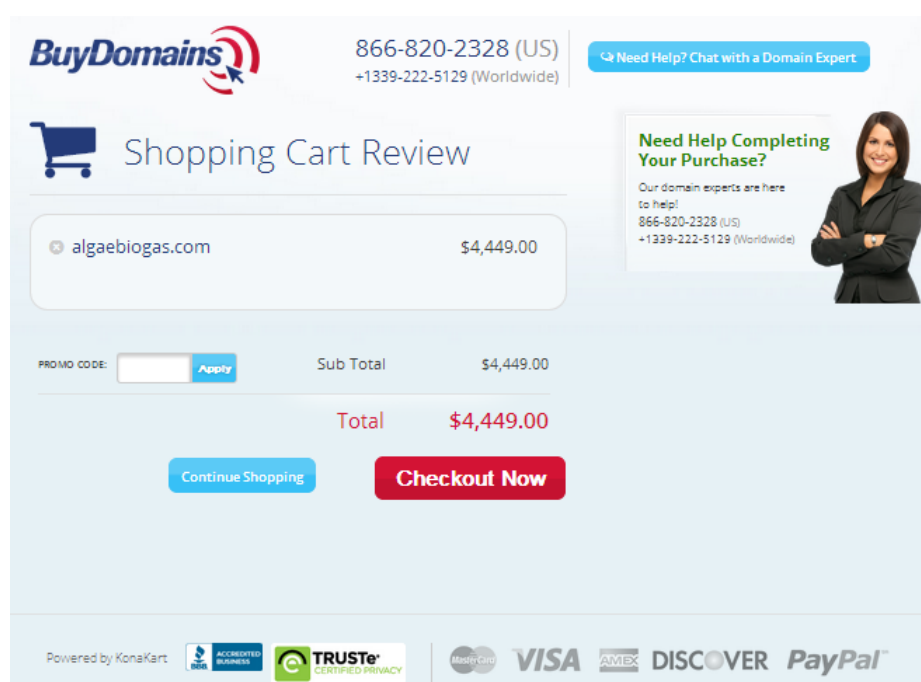
https://checkout.buydomains.com/BDAddToCartFromProdId.do?&prodId=1153770

Figure 1: Domain check

2.2   Server

We decided to use the server and infrastructure that is already at use for our other websites: algen.si and algica.si. We keep our own domain name server, so we added all the domains names to the DNS server.

The apache web server was configured to serve the domains. All English based domains are mapped to a single virtual web server, the .de and .si domains are mapped to the specific language pages on the server.

The Drupal CMS system was configured to serve the pages. The usernames for all project participants of the project were prepared. There are three roles: *anonymous* for all general visitors, *authenticated* for general project users and *administrator* for site management.

Deployed CMS system enables set-up of general presentation layout, set-up of graphic templates and similar.

2.3   Common web site functionality

The page contains a horizontal menu on the top, vertical menu on the left, a login panel below and the content of the tab in the centre. The AlgaeBioGas logo is on the top-left side of the web site. The EU, AlgEn and KOTO logos can be found on the right. The summary of current news is listed below the logos on the right side.

The content of the web site is divided according to the type of information and can be accessed using the vertical menu at the left side of the page.

2.3.1   Horizontal menu lines

- Privacy statement

- Cookie policy

- Terms & Conditions

2.3.2   Vertical menu lines

- Home

- News

- Project Overview

- Project Basics

- Public Deliverables

- Events Calendar

- About Us

- Contact

- SVN

3 Description of Website functionalities for public visitors

The public part of the web site has to be a marketing tool for the future product. We will focus much more on the technology, customer benefits and demo results and keep the methods and market development activities limited within the project-private part of the web site. Below are described the topics, which can be found in vertical menu and accessed by anybody.

3.1 Home

Home is the front page and contains basic information about AlgaeBioGas. The text is supported by images of the process.
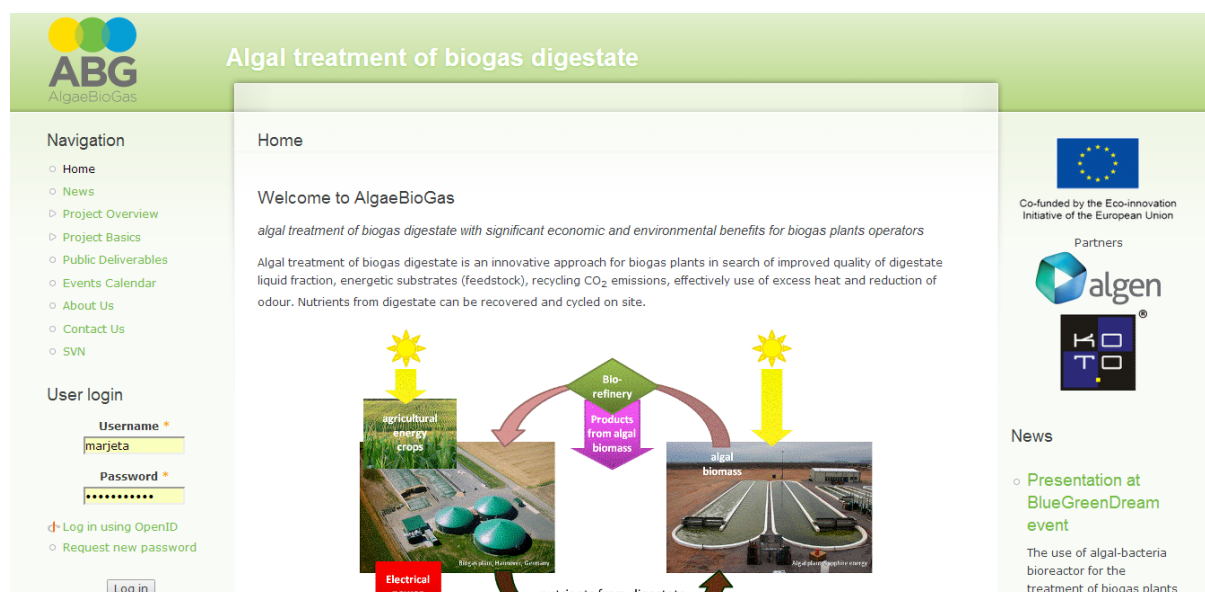
Figure 2: Front page

3.2 News

The announcements of events, progress of the project work, dissemination activities and other information considering AlgaeBioGas project will be presented on the News page. The short announcements of the latest news are also visible on all other pages: on the right side under logos.

Figure 3: News

3.3   Project Overview

This page provides information about the project. The idea, background, innovation and aim are described here. Technical description including the state of development is presented in the sub link.

Figure 4: Project Overview with sub link Technical description

3.4   Project Basics

The aim of this page is to present the basic of the technology and our view of the market. We will publish one-two page stories (at least one per month) related to AlgaeBioGas to keep the website alive, invite search engines and keep potential customers visiting our web page. The list of topics is provided and the topics are described in sub links.

Figure 5: The list of topics on Project Basics page

3.5   Public Deliverables

The list of all public deliverables of AlgaeBioGas project is presented on this page. We welcome visitors to open the deliverables by clicking on the hyperlinks. The access to the deliverables will be provided as the deliverables will be prepared and submitted.

Figure 6: Deliverables can be accessed by hyperlinks

3.6   Events Calendar

On this page the list of events related to the project is maintained. Wide variety of events is included. We are maintaining this list since we consider presentations on events as one of the primary paths to access the potential market. Events where we

are participating are specially marked in the list. Not all decisions on participation at future events have been made yet and the list will be updated periodically.

Figure 7: Events Calendar

3.7 About Us

The beneficiaries of the project are presented at About Us page. The names of the partners are hyperlinks to websites of the companies.

Figure 8: About Us

3.8 Contact Us

The contact e-mail is AlgaeBioGas(at)algen.si and we invite website visitors to contact us with any discussion or question regarding the project. The e-mails sent to this address will reach info(at)algen.si (coordinator) and lea.lavric(at)koto.si.

4 Description of Website functionalities for project members

4.1 Use of SVN repository as a project file sharing method

It has been decided that we will use SVN as a revision control system to manage and share documents in the AlgaeBioGas project. We are presenting a brief overview of the installation and a very brief crash course on using minimum set of features of SVN in Appendix I.

For any ambiguities, incompleteness, misunderstandings and requests for help please contact marjeta(at)algen.si and robert(at)algen.si.

4.2 Website Administrator

The administrator has full access to maintain the web site by managing the content, adding or deleting the menu points, adding new content, uploading documents etc. The more significant changes will be discussed between partners.

5 E-mail addresses and mailing lists

The following e-mail lists have been established:

e-mail address	Members
algaebio-gas(at)algen.si	A general e-mail address for project related (external) inquiries. Initial members info(at)algen.si, lea.lavric(at)koto.si
abg_algen(at)algen.si	People at AlgEn working on the project
abg_koto(at)algen.si	People at KOTO working on the project
abg_all(at)algen.si	abg_algen(at)algen.si and abg_koto(at)algen.si
abg_wide(at)algen.si	abg_algen(at)algen.si and abg_koto(at)algen.si and additional stakeholders (like advisory board),... Initially: no others yet.

There is an essential rule for using these mailing lists: when replying to a mail that was sent to such mailing list, the list has to be in CC of the mail, so that all members see the reply and that the original sender does not get a (different) reply from each member.

Initially the prefix for the lists was "ab_" which was later changed to "abg_", so both versions still exist.

Mailing list abg_koto(at)algen.si is maintained by algen. It was agreed that the maintenance duties will be moved to koto, so at some time this may change to abg_koto(at)koto.si.

# Appendix I: Use of SVN repository as a project files sharing method

Installation

- Create folder algaebiogas on your computer – this will be the folder that will be synchronized with the SVN server (initially we will support synchronization of the whole tree, later it is possible to synchronize parts of the tree).

- Download the TortoiseSVN program from: http://tortoisesvn.net/downloads.html

- Installing the program (be administrator).

- Installation does install a few items in the Start menu, but much more important and useful is the *right-button menu in Windows Explorer* (Marked reddish in the following screen shot):
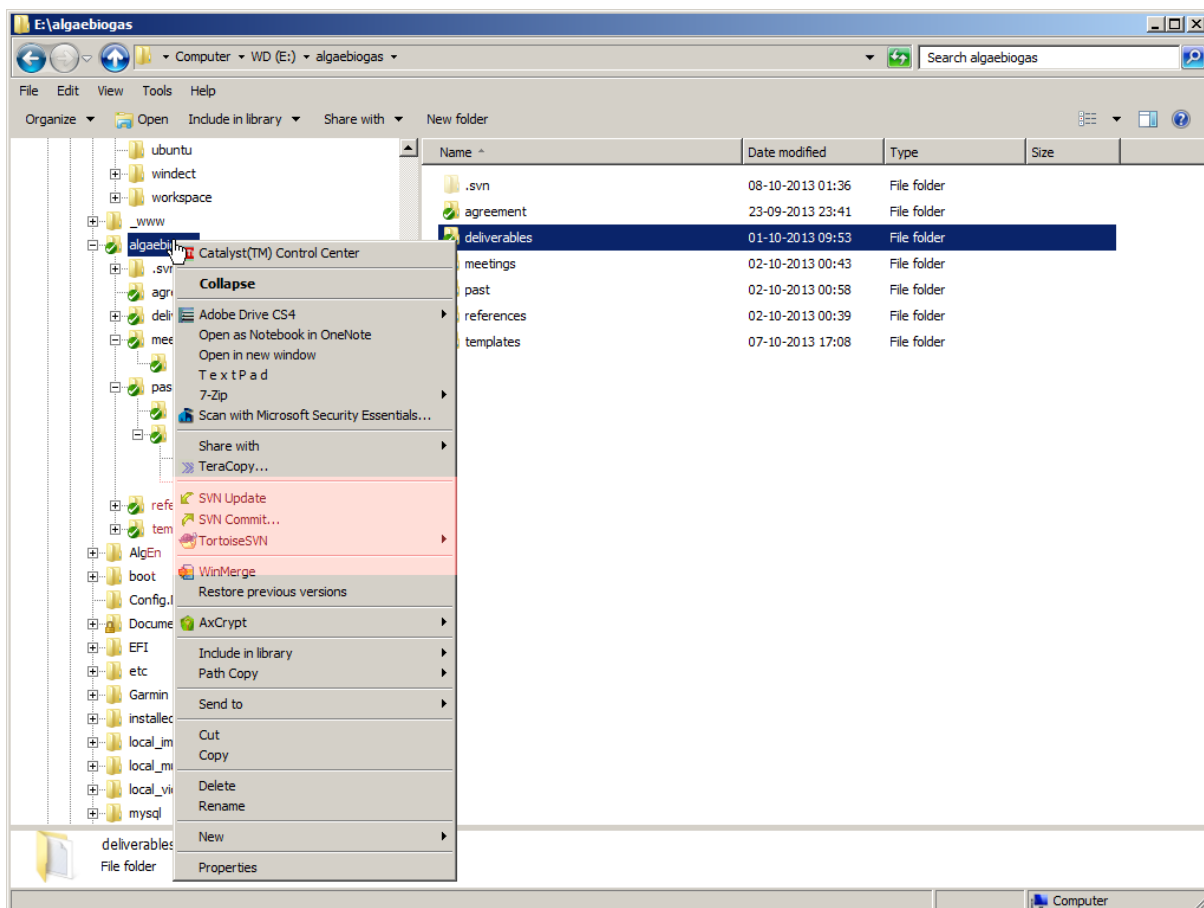
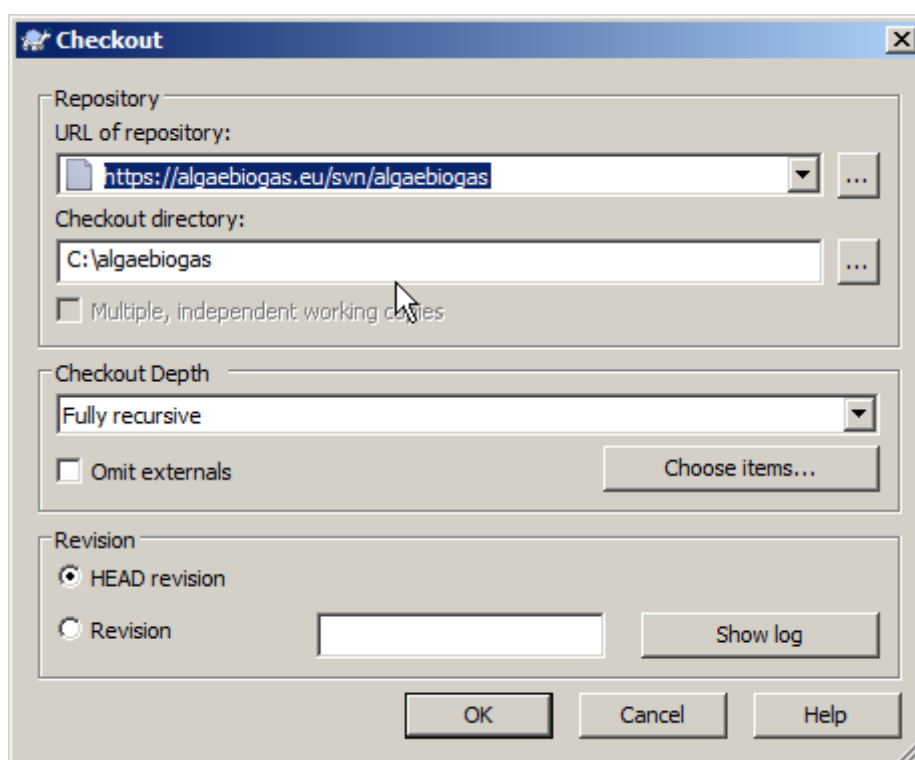## Initial Check-out

- We will now check-out the files from repository to your local copy of the tree:

  - Select the above created folder algaebiogas, right-click it and select SVN Checkout
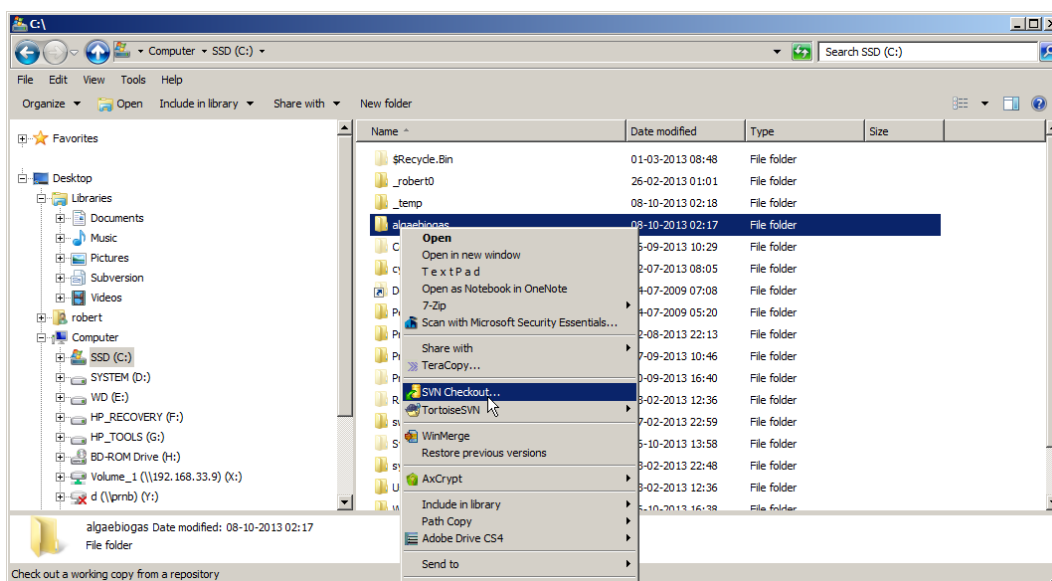
- In the Checkout window enter the location of the repository https://algaebiogas.eu/svn/algaebiogas, check that *Fully recursive* is se-lected and click *OK*.


Same screen in more modern environment (Win8):
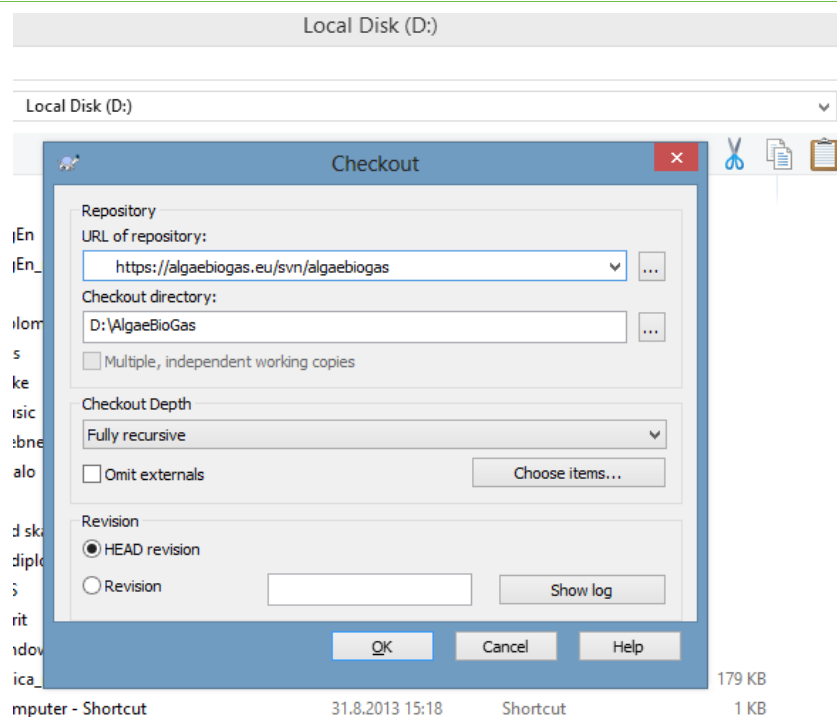
- You will be asked to accept the certificate of our SVN server. If you wrote the address right and do not expect any weird DNS scams on the way (if the web page http://algaebiogas.eu/ shows right), please do accept the certificate permanently. If you want to be sure, check the fingerprint – it should contain "algen" or "Robert Reinhardt" as the certificate holder.
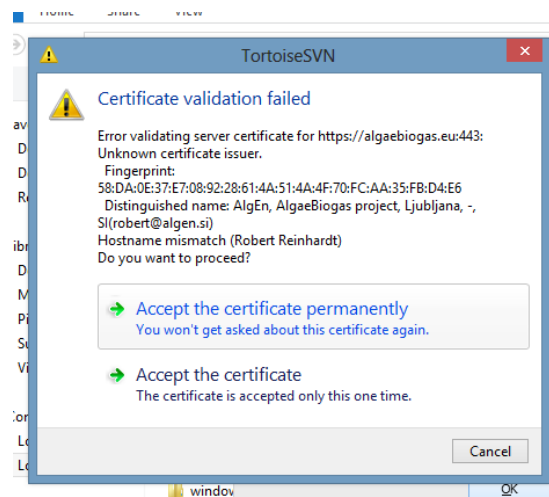

- Authentication: you are asked for username and password. You must have received a username/password pair by mail.

  This authorization is very separate from other credentials you may have: different from any Drupal username/password (used for web site management), different from Linux username/password (used for other filesyncing and ftp server). This kind of authorization is only used for SVN and for web access to some non-web managed pages. This username and password pair is only settable by system administrator and (sorry) there is no way to change a password by user access, there is no mechanism for lost password retrieval, no expiration periods, no password security checking and no other frills.

However, all traffic between server and client is encrypted so passwords are not easily deciphered by "innocent bystanders". At present, you have to contact me (Robert(at)algen.si) for any password maintenance.
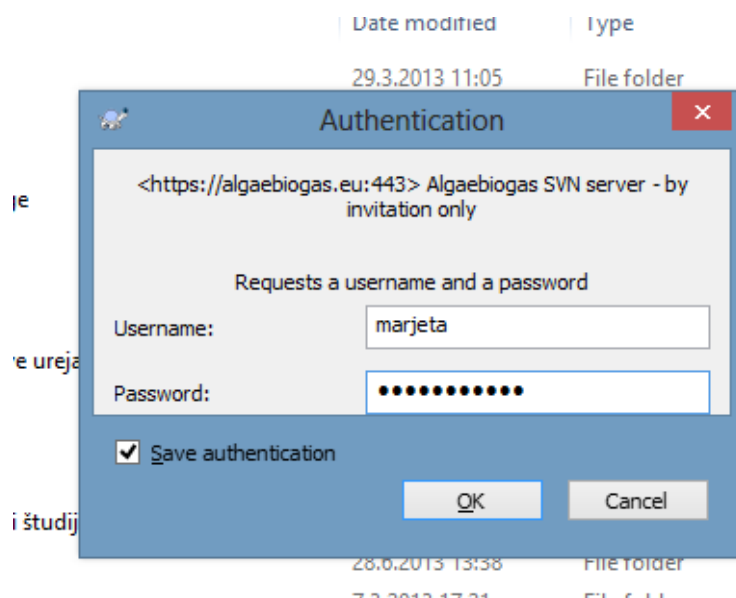
- Check-out copies all files to your directory. At present there is some 200 MB of data so this may take several minutes.
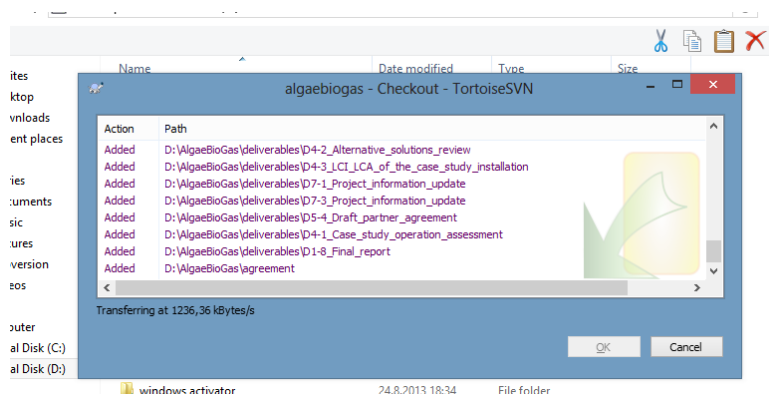
Using SVN

After you have a working SVN sandbox (your copy of files) you can see status of files by small icons overlaid on normal file icons: green means everything is OK, blue means the file is not known to SVN (it is unversioned and most likely must be added to SVN), red means that file has been changed locally and changes have to be committed to SVN.

- Beware: *green overlay does not mean that files are identical to the repository: files in the repository may have changed* – and update operation brings such changes to our copy.

- In general there are two operations:

  - SVN Update – brings changes from repository to our copy (sandbox):
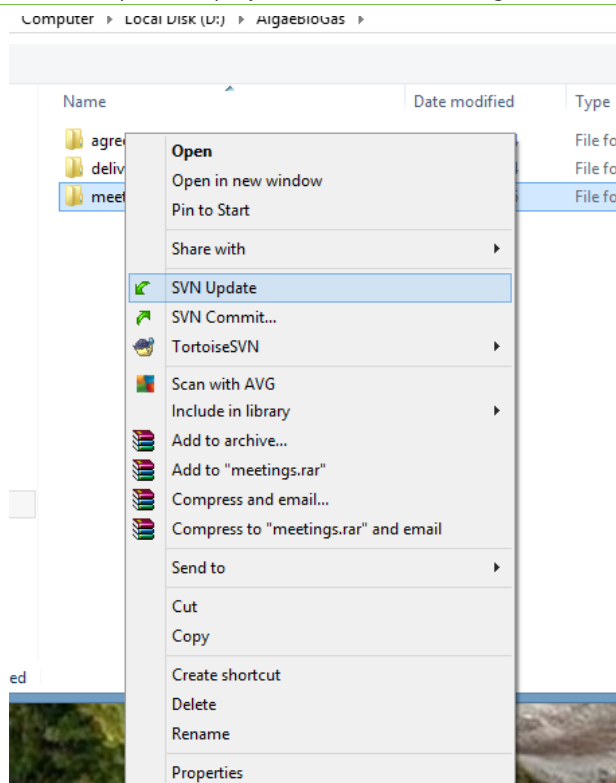
- SVN Commit – brings changes from our copy to repository
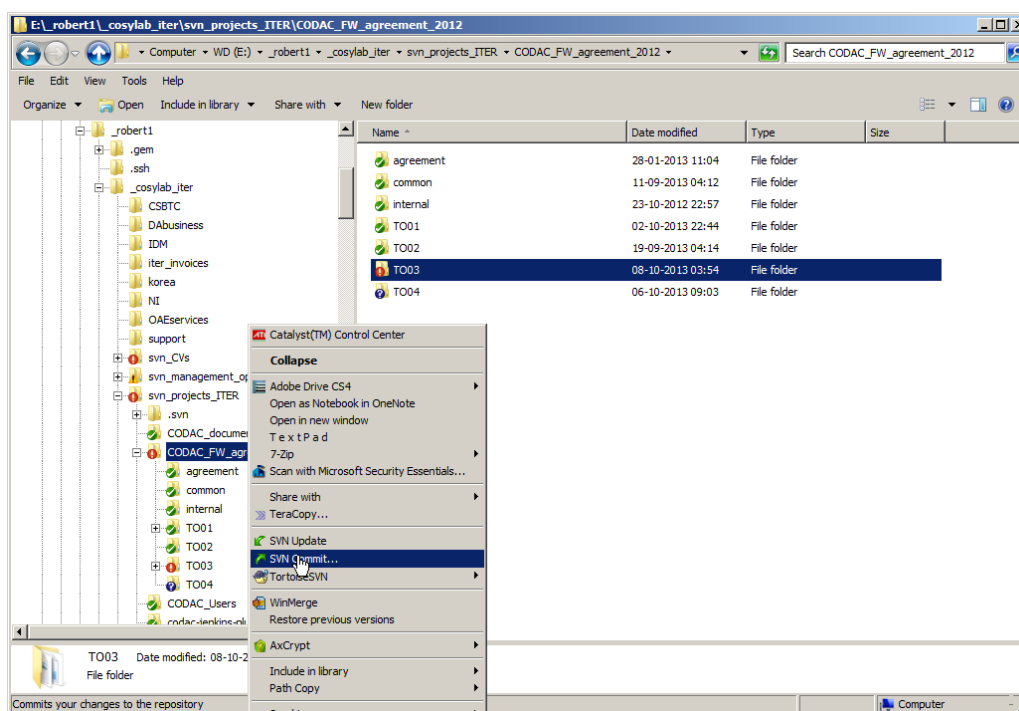
Above screen capture shows a folder with changed files (red over TO03) and a new folder which is not versioned yet (blue over TO04), a commit that is about to be clicked will show the following:
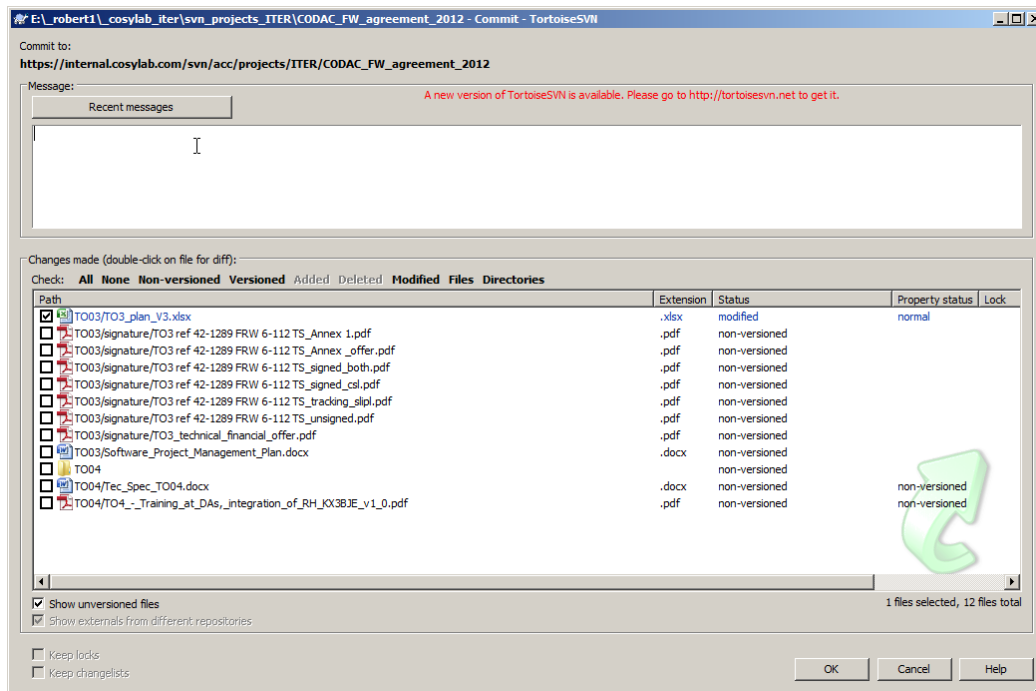
Top part of commit window asks for a message describing the commit (free text).

Bottom part shows file selection pane: we see one file that has been modified and many files that have been added and are at present unversioned. They should be marked to be added to the repository.

After the commit is executed we get the following log of what has been done:
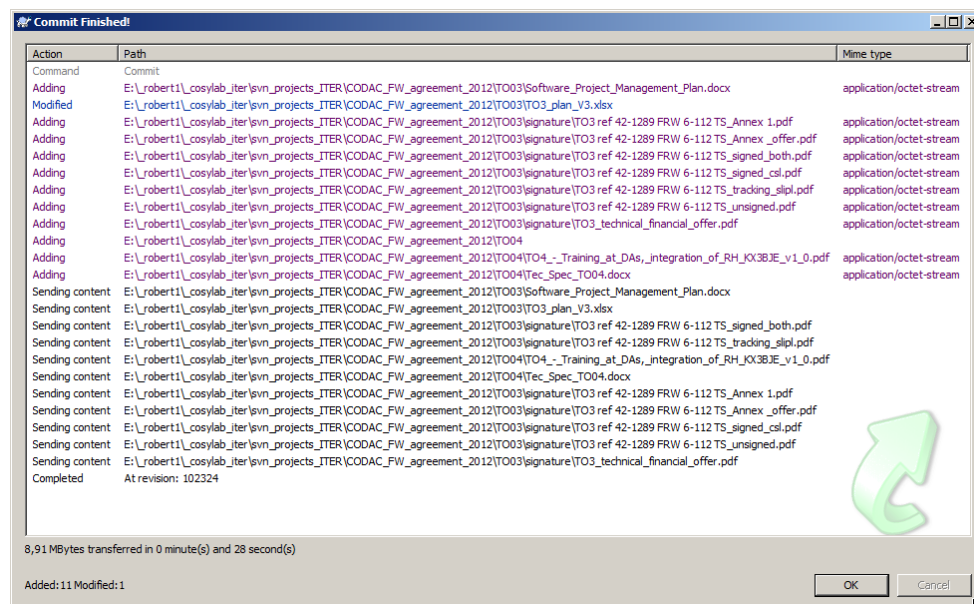
Any discovered conflicts would have been revealed here.

In any of these operations collisions of changes are possible. SVN supports comparison and merging tools for text files, these are not really useful for complex files we are working with.

Some general notes

- SVN keeps history of all files that were committed. You can get old versions, you can bring the whole repository to some old version, you can bring your sandbox to an old version, you can split versions – keep changing several branches separately and then later merging them into a single branch (or not); you can also tag releases, so you can get the version of files at the time a release has been done. All these operations are beyond the scope of common user in our case.

- On every Commit you are asked to provide a description of change. Please do so. Please also make commits into sensible units: commit changes to one deliverable separate from changes of another deliverable. Commits are intended to be atomic: you can only uncommit a complete commit, not parts of it.

- A general rule: do *SVN Commit* frequently (nobody sees any change until you commit), but in sensible units – if you changed several files, commit them together if the changes belong together, or commit them separately if the changes are independent.

- Another general rule: do *SVN Update* frequently. Without Update you will not see what others have changed in the repository – there is no mark on the file that it has been changed in the repository and your copy is out of date.

- Use SVN operations for renaming and deleting files:
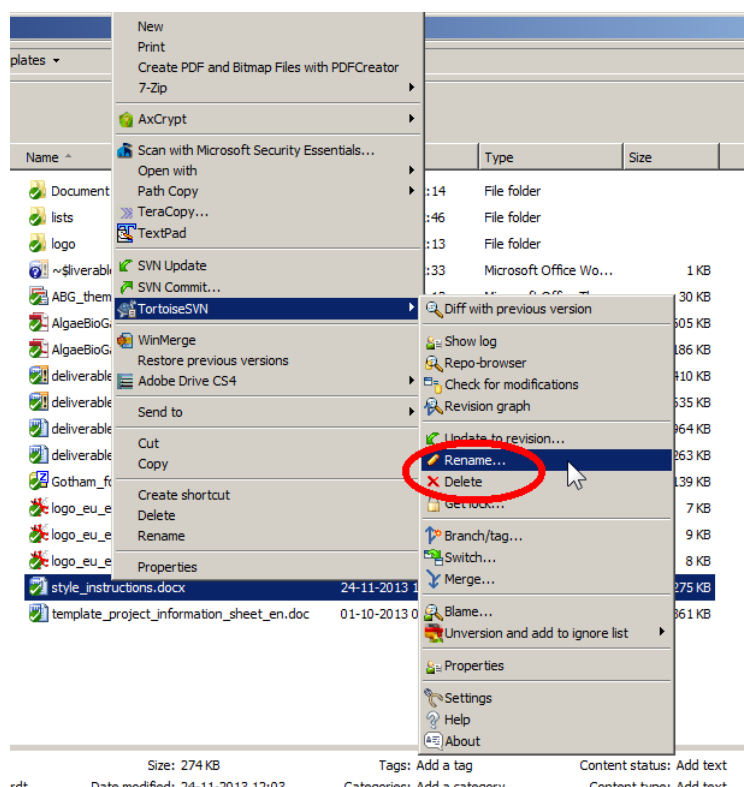
This lets SVN know about the change and act correspondingly. It you just delete a file, it will be deleted from sandbox only and you will get it back with next update. If you just rename a file, you will get an unversioned file that SVN will want to add on next Commit and next Update will bring back the file under the old name.

SVN Delete and SVN Rename operations are versioned; file is never really deleted and you can get the deleted file back.

- SVN does the versioning by itself, so there is no need to mark versions of a file with dates. The only occasion where file name should be changed is a revisioning case: when the author sends a file to several reviewers their changes are usually incompatible, so it does not make sense to have them in a single stream of versions. In such cases SVN branching would be the needed functionality, but we will use simply appending the initials of the reviewer to the file name. Author then joins several versions of the file (with different suffixes) into a single new version. Such private branches of files may or may not be included in SVN. If they are included in SVN, they may be safely SVN deleted after they are merged into the mainstream version.

- There is a useful command in SVN: Diff. It shows difference between head version of the file and current version in your sandbox. It works well for Word files and decently for Excel files (and of course perfect for plain text files).

- SVN gets lost sometimes if you exaggerate with local operations in your sandbox (you can usually find out the reason for such behaviour if you think about how to maintain versions during your wild operations). In such cases you may be asked to perform a *Clean-up* operation. If you have some important changes in your sandbox, please make a copy of your folder to some unversioned place before you do such heavy operations. *Clean-up* and *Unlock* operations should be performed on the file that caused problems (which is sometimes hard to find, especially if it has been deleted in the mean time). There is always a solve-all approach: delete your whole sandbox and make a new clean check-out (after you have moved all your uncommitted work out of the sandbox).

- Please avoid checking-in temporary and work files: all files with names that begin with "~$" are Word and Excel temporaries (they sometimes remain in folders after a crash and may be safely deleted). Please also use versioning feature sparingly with very large files that change frequently: SVN is not a good tool for database backup and it was not designed for large repositories of photographs, movies or similarly large files (although storing a limited set of photographs, or a finished movie is perfectly normal).

- Some programs tend to update files if you just open them or make a tiny change (a single arrow in excel means that the selected cell is changed, so we have a new version of a file). Please avoid generating such files with minimal differences – SVN is smart in the sense that it only stores the differences, so the problem is not in the storage, but in the clutter generated by such useless versions.

- SVN was designed for versioning in software development, so it is a robust and safe tool. There are other such tools (git would be a typical example) that are more distributed, but we opted for a conservative proven solution with a central repository.

- We have a separate document about file naming rules, but is serves good purpose to repeat the essentials here: filenames are short descriptions of the contents of file; SVN is inherently multiplatform (our server resides on a linux box) so file naming rules should be understood restrictively: if something is not a valid filename on one system it should not be used on any system. An important special case is letter case: windows does not distinguish upper and lower case characters, while linux does. Files reside in folders and there is a general limit on

the total length of a fully qualified folder/filename. On windows it is 255 characters. Please consider a (common) option that whole folder tree is stored in some other folder (e.g. for backup) and leave some room in filename length for such cases. If you like to use national characters in filenames (ČŠŽ for Slovenian), please try to TYPE a filename containing a Chinese character: how do you type it? It is the same problem to type a Č on an English or French keyboard (or an € on US keyboard). We can all type 26 English letters and 10 digits: please be considerate to us who have to occasionally really type a filename (by using a decent character set and decent filename length). Please bear in mind that some Word processors are smarter than us in using characters that LOOK similar but are really different: "-", "-", "–", "-", "¯", "_", "−" (no two of these dashes are equal).

- Another final naming note: think about sorting order of filenames in a folder: if you are using numbers, consider them zero padded (V1, V2, V11, V100 sort lousy, while V001, V002, V011, V100 sort well on all systems). If you had to use a date in a filename (which you don't), please consider using it in format YYYY-MM-DD or YYYYMMDD – this sorts well, while DD-MM-YYYY sorts by days in a month and D-M-YY sorts as 1, 11, 2, 21, 3).