

SVN tutorial

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What's SVN

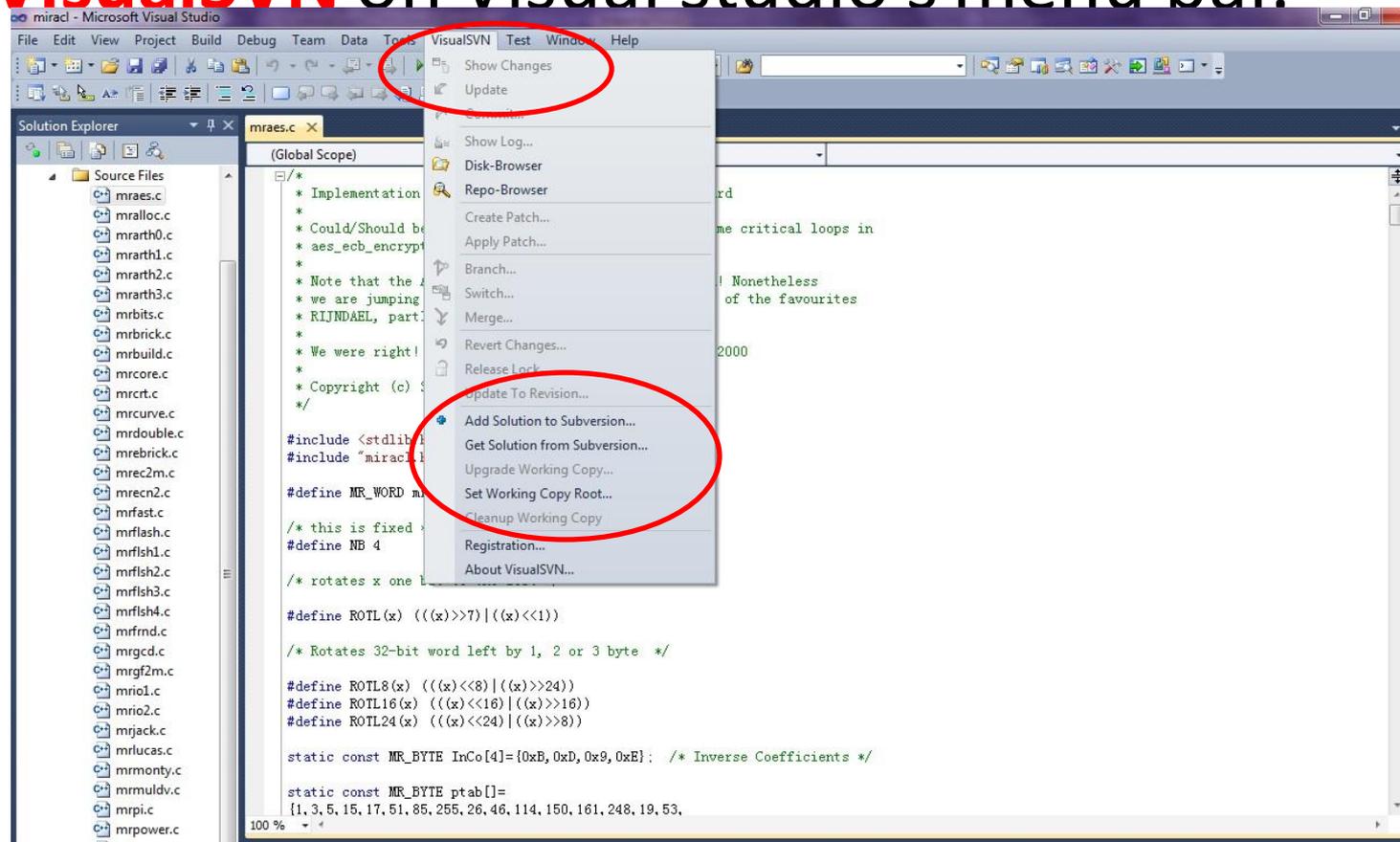
- SVN is a development tool for keeping track of all your changes in code.
 - SVN will be used for all of your team projects in this semester
 - Other similar programs: clearcase, CVS...
 - Our department has a SVN **Repository** server

How to use SVN

- TA/Instructor create the repository for a project:
 - `https://svn.cse.tamu.edu/[repository name]/[subtree]`
- To use SVN in Visual studio, students need to install SVN client on their Windows
 - SVN client: [VisualSVN](#) and [TortoiseSVN](#) in combination with Visual Studio
 - For linux user, you can use install a SVN client with GPL, and use SVN command line

- First download TortoiseSVN (64-bit)
 - <http://tortoisesvn.net/downloads.html>
- And install it.
- Then download VisualSVN and install it
 - <http://www.visualsvn.com/visualsvn/download/>

- Now, open your visual studio, you will see **VisualSVN** on Visual studio's menu bar.



- Click 'Add Solution to Subversion',
- a popup will come up, check 'I will set working copy root manually' and click 'Next'
- Select the correct folder that your project is in, then click 'Next'
- Choose 'Existing Repository' and click 'Next'
- In the 'Destination URL:' box, type in the **project location** url from above (Here use *[https://svn.cse.tamu.edu/\[repository name\]/\[subtree\]](https://svn.cse.tamu.edu/[repository name]/[subtree])*)
- It will prompt you for username/password.
- After verification, it will ask you if you want to import your new files (For the first time, the repository is empty) click 'Import' - this may take a bit
- And... your done

SVN commands

- Concept: **Check In, Check Out, Commit**
 - Check In: also known as **Import**
 - First, create a directory for it in your repository.
 - \$ svn mkdir *https://svn.cse.tamu.edu/[repository name]/teamxx_projx*
 - Next, import project files. Change the current directory to the project's directory, and run *svn import*
 - \$ cd /home/name/[...]/myproj
 - \$ svn import *https://svn.cse.tamu.edu/[repository name]/teamxx_projx*

Check Out

- the repository is stored in the svn directory **which you won't deal with**. To work on your files, first you need to **check** a working copy **out** of the repository. To do so, use *svn checkout*:
 - svn checkout *https://svn.cse.tamu.edu/[repository name]/teamxx_projx*

Commit

- Once you're done and you want to store the new revision in your repository, run *svn commit* in the checked-out myproj directory:
 - \$ `svn commit`

Working with Revisions

- **Check Status**
 - `$ svn status <filename>`
- **Compare different Revisions**
 - `$ svn compare -r R1:R2 <filename>`
 - (Replace R1 and R2 with actual revision numbers you want to compare)
- **Revert Local Edits**
 - `$ svn revert <filename>`
- **Revert to Previous Revisions**
 - `$ svn update -r R`
 - (Replace R with an actual revision number)

Final Words

- `$svn help <command>` to get a help message on `<command>`:
 - `$ svn help import`
 - <http://svnbook.red-bean.com/>
- Questions?