**Mercurial source control system.**

Mercurial is a free, distributed source control management tool. With Mercurial, every developer has his own local repository. Developer may commit, rollback and perform any other source control related tasks using his own repository. Then this repository may be synchronized with any other repository (another developer or some dedicated central repository).

In addition to Mercurial itself we will use **TortoiseHg –** GUI for Windows users which integrates Mercurial into Windows explorer.

In general, we intend to use next repositories topology:

**Arlington, VA**  **Noida, India**

Central Repository

Local Central Repository

Developer Repository

Developer Repository

Developer Repository

**SCM Manager Web server**

Central repositories have to be available over network (Http), so we use “SCM Manager” Web server. SCM Manager has its own role-based security system.

Development team “SCM Manager” Web server

Development Team

Central

Repository

Arlington “SCM Manager” Web server

Arlington

Repository

Developer

Repository

Developer

Repository

Developer

Repository

Http

Http

**How to clone Arlington Central Repository to Development Team Central Repository:**

To create copy of Central Repository and make it available via your own SCM Manager Web server, you have 2 possibilities:

1. Go to SCM Manager default folder. Clone Arlington Central Repository inside this folder, then go to SCM Manager Web site and make “import repository”. Set permissions.



“localhost” must be replaced with URL of the server where SCM manager is hosted.

You will be prompted for credentials. “SCM Manager” administrator must give them to you.

1. Or: Create new repository via SCM Manager Web site, set permissions etc. Then, in Windows explorer, right-click on the directory of created repository and go to TortoiseHg -> Synchronise.



And pull changes from Arlington Central Repository:



“localhost” must be replaced with URL of the server where SCM manager is hosted.

You will be prompted for credentials. “SCM Manager” administrator must give them to you.

**Some notes for developer:**

Central repository server

Developer’s machine

Local Developer

Repository

Developer’s source code folder

Update

Commit

Development Team

Central

Repository

Pull

Push

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**How to clone central repository to developer computer:**

1. Create some folder.
2. Right-click on the folder -> TortoiseHg -> Clone.
3. Enter the address of Central Repository.

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You will be prompted for credentials. “SCRM Manager” administrator must give them to you.

**How to get latest changes from central repository:**

1. **Commit** all your local changes (if any) to your local repository so your local repository has all your changes.
2. **Pull** the current version from central repository. Merge changes if necessary.
3. **Update** your local source code folder.

**How to put you changes into central repository:**

1. Get all changes from central repository (apply all 3 steps described above). You must not push you local changes before you have all latest changes from central repo.
2. Check that project can be built and run.
3. **Push** changes to central repository.