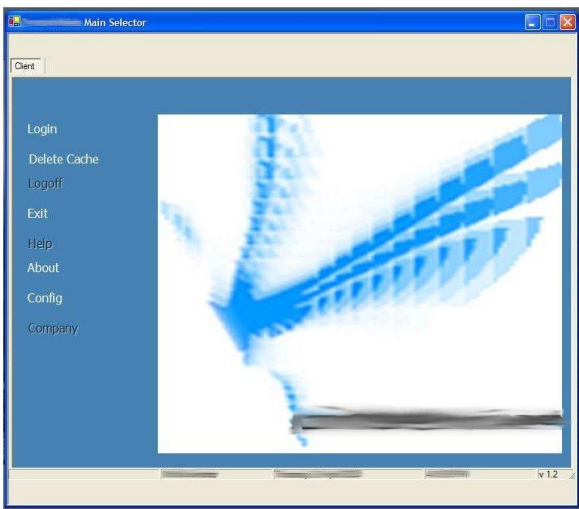


# Windows Application Framework

Some of the highlights of the Windows Application Framework that I have developed

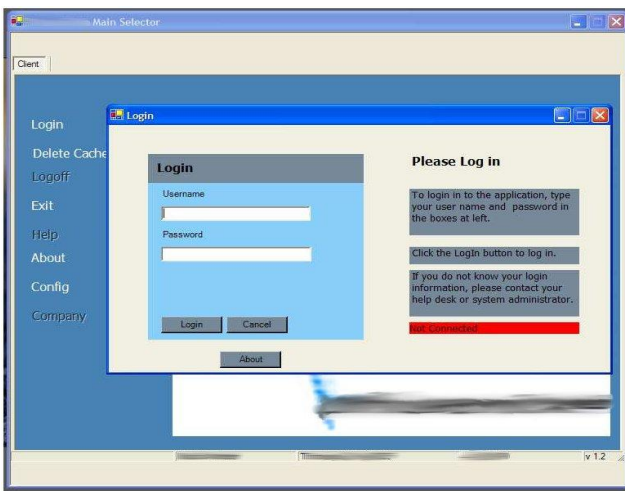
- Dynamically built user interface components, auto updatable assemblies.
- Web-services for data access allow non dependency on database drivers on the client side.
- Security through role-based authorization for user access only to specific applications.
- New and updated application can be deployed transparently to the user.



The Windows Application framework is the entry point for all deployed applications.

The architecture of the windows framework is as follows.

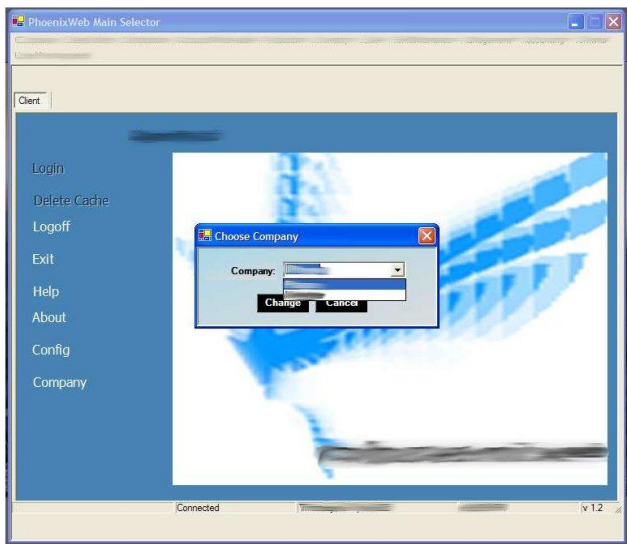
- The setup for the framework contains the base libraries for the UI and reporting. Minimalism is the norm for what is packaged with the setup. The signature of all auto downloadable assemblies is inserted into the client machine's .Net framework security sub-system. Hence, the auto downloadable assemblies obtain full trust on instantiation.



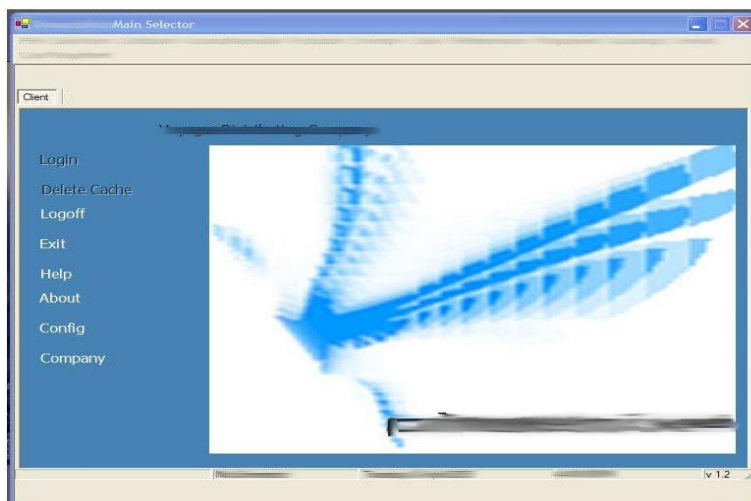
- The authentication assembly is automatically downloaded from the specified code-base and instantiated through reflection. This removes all dependencies on versioning and hence new functionality can be incorporated into the assembly without deploying a new setup.
- The Authentication assembly contacts the authentication web-service and after authenticating the user, obtains his/her company profiles as well as menu profiles.
- A very interesting aspect of this framework is that the Menu file is built dynamically from a Dataset which is provided by the authentication assembly

after authorization. Hence new applications can be called from a centrally updated menu.

- Web-services are used for all data access by client applications. This removes the need for database drivers to be installed on the client side hence removing any incompatibilities with database driver versions.
- The click event of the menu file automatically downloads the latest version of the assembly from an intranet/internet location and instantiates the specified object through reflection. Hence new and updated application can be deployed transparently to the user.



- The user can belong to multiple companies and the authentication assembly populates the company combo box with the multiple companies an authenticated user belongs to. A change in company dynamically updates the company profile and rebuilds the menu in accordance to the new company's menu dataset.
- Security is applied on the dynamically built menu since the menu dataset contains access permissions which are checked against the user's groups and then accordingly, the menu item(s) are enabled or disabled.



# Screenshots of some applications built on the above mentioned framework

