## Layton Technology Build Procedures

The aim of this document is to outline the steps required to build AuditWizard.

Table - Version History

|  |  |  |  |
| --- | --- | --- | --- |
| Version Number | Date | Author | Reason for change |
| 0.1 | 12/05/2009 | Jason Lynn | Initial version |
| 0.2 | 14/10/2010 | Jason Lynn | Update |

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## AuditWizard source code structure

The AuditWizard code consists of 14 projects contained in a Microsoft Visual Studio solution file. One of these projects is the Deployment Project which handles the creation of the AuditWizard installer file (*AuditWizard\_v8.msi*). The other projects are:

*Layton.AuditWizard.Administration*

*Layton.AuditWizard.Applications*

*Layton.AuditWizard.AuditTrail*

*Layton.AuditWizard.AuditWizardService*

*Layton.AuditWizard.Common*

*Layton.AuditWizard.DataAccess*

*Layton.AuditWizard.Network*

*Layton.AuditWizard.Overview*

*Layton.AuditWizard.Reports*

*Layton.Cab.Interface*

*Layton.Cab.Shell*

*Layton.Common.Controls*

*Layton.NetworkDiscovery*

## Building the Source Code

The code should be built using Visual Studio in the *Release | x86* configuration. The following are some additional points to remember when performing the build:

1. Change the version number throughout the application.
2. Update the version number in the Deployment project – DO NOT change the ProductCode when prompted.
3. Set the Build Configuration to *Release | x86*.
4. Ensure correct application type is defined (standard or PAYG).
5. Ensure corresponding images for standard/PAYG version are in place for splash screen and registration.
6. Any new tables have been added to the SQL Standard build scripts.
7. Add any new tables to the database migration script.
8. All new files (i.e. new database scripts) added to build folder in VS2008.
9. If the Scanners have been updated with a new file version, update the current version number in UploadAuditDataFile.
10. Add any new image files to the Icons folder within File System view in VS2008.
11. Change the Layton Service Desk stored procedure build numbers in start-up code.

## Updating the Version Number for Customer Web Service

On launch, AuditWizard automatically checks to see if a new version is available. This is handled by a web service which needs to be manually updated whenever a new version is available. The web service code is stored as a Visual Studio Project named *CustomerWebService*.

To make a change to the version, open the project and update the *GetLatestVersionNumber* method in *CustomerWebService.asmx.cs* with the relevant version number. Build the project and select the following files: *CustomerWebService.dll* and *CustomerWebService.asmx*. Then perform the following steps:

1. Log onto Plesk (<https://74.54.73.146:8443> Login Details Username: admin,  Plesk Access (Backend) - UZqqEwnC@F)
2. Navigate to the Domains (under General Tab in top left of screen)
3. Click [laytontechnology.com](https://74.54.73.146:8443/domains/dom_ctrl.php3?dom_id=1&previous_page=domains)
4. Select File Manager from the Hosting section
5. Click on httpdocs
6. Click on AW\_Web\_Services
7. Select the file ‘*CustomerWebService.asmx’*, then Remove Selected
8. Add New File – navigate to the new *CustomerWebService.asmx*.
9. Navigate to the bin folder
10. Select the file‘*CustomerWebService.dll’*, then Remove Selected
11. Add New File – select the new *CustomerWebService.dll*.

You can test this has worked by going to the following URL:

<http://www.laytontechnology.com/AW_Web_Services/CustomerWebService.asmx/GetLatestVersionNumber>

It should report the new version.

## Update Patch

With each full release, we also ship an update patch to allow existing users to easily upgrade to the latest version. This patch is created using an InstallShield 12 project (*AW\_Release.ism*). To build the patch:

1. Set ‘Latest setup’ to match the path to the latest MSI file.
2. Move the previous latest setup into the previous setups list.
3. Change the version number in the 'Uninstall' tab of Patch Design to match latest version.
4. Validate the build - it should tell you that it will perform a MINOR upgrade on each previous version.
5. Build patch.
6. Remember to digitally sign the patch after building.

## Digitally Signing the Product Executables

All of the product executable files need to be digitally signed to ensure the company name is visible on any UAC dialogs. This helps to project a professional image of the company and assures the user that the application is from a trusted source.

There are two files needed to complete the signing: (a) the file to be signed, (b) the P12 file which contains our code signing certificate. The SignTool.exe command-line tool (part of the Visual Studio SDK) is used to digitally sign the file.

The steps are as follows:

1. Open the Visual Studio Command Prompt
2. Type the following into the command window:

signtool sign **/f** *<KEY\_PATH>* **/d** *<FILE\_DESC>* **/p** *<PASSWORD>* **/t** *<TIMESTAMP URL> <EXE\_PATH>*

A full list of the available parameters can be found [here](http://msdn.microsoft.com/en-us/library/8s9b9yaz.aspx#sign). The relevant ones used in this example are:

**/f** – Specifies the signing certificate in a file.

**/d** – Specifies a description of the signed content.

**/p** – Specifies the password to use when opening a PFX file.

**/t** – Specifies the URL of the time stamp server.

As an example, the following string is used to digitally sign an AuditWizard MSI file (assuming both required files are located on the root of the C:/ drive).

signtool sign /f c:\SecurityKey.p12 /d AuditWizard /p Layt0n916 /t http://timestamp.comodoca.com/authenticode C:\AuditWizard\_v8.msi

If the signing was successful, you will see the following message in the Command Prompt:

*Done Adding Additional Store*

*Successfully signed and timestamped: C:\AuditWizard\_v8.msi*