CAB Local Information System Intranet Installation Guide

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1 Introduction

This document helps you install the intranet version of the CAB Local Information System developed by Constructive IT Advice. It covers installation from scratch and making changes to your installation.

1.1 Features overview

The Local Information System supplements the CAB systems by providing information about local contacts and resources likely to be useful to clients. It is designed to make it as easy as possible for you to find the information you need online without having to find data from paper files. The system will help ensure that data is as up-to-date as possible by linking directly to source material on the web and in your bureau. The system provides:

1. **An online index to the local information database**. The online index provides a sophisticated search and look up system, increasing the likelihood that you will find what you are looking for. For example, you can search for index entries containing words you are looking for. The electronic index also supports multiple index entries for the same item so, for example, you can identify organisations by both acronyms as well as their full names.
2. **Information about contacts and resources**. The database contains textual information that will help advisers in their dealings with clients. Text can be formatted to make it easier to read. For example, it can include bullet points.
3. **Links to local information**. The database supports different types of link:
   a. The database can link directly to supporting information held in web sites. Clicking any link will take you straight to the relevant web page. The maintenance program comes with a utility that regularly checks web links to make sure they are still valid.
   b. Document links. These work in the same way as web links except that they refer to documents held in your local network. For example, a database entry might link to a local policy document written in Word. The database will automatically run the right application to show you the linked document. Again, document links can be checked regularly to make sure they are still valid.
   c. Paper file links. Some documents are difficult or inappropriate to store electronically. In these cases the database can provide a reference to a paper file.

The system is designed to be easy and straightforward to use, and does not require users to have specific IT expertise - although a knowledge of web browsing will be helpful.

1.2 The intranet version

The intranet version of the Local Information System runs on a web server. You can host it on the internet or on a PC in your network.

Advisers access the Local Information System using any device equipped with a reasonably capable and modern web browser. See below for a list of devices and browsers we have tested. There is no need to install any software on adviser's devices.

Similarly, local information administrators use web browsers to add, change and delete entries in the database.

If you host the Local Information System on the internet, then any authorised person can access the system as long as they have a connection to the web. That includes:

- Multiple offices sharing the same database
- Outreach sites
- People working from home

If you decide to host the system on your network, the technology used by the intranet version means you can share the system with other offices over relatively slow network connections. Something that wasn't practical for the desktop version.

Previously, you needed the desktop version to update the intranet database. That's no longer the case – the intranet version can run stand-alone. We have, however, provided utilities to allow the desktop and intranet systems to work together. For example, you might want to keep your desktop system running while you make sure your intranet system is bedded down.

Finally, all the software used by the Local Information Software is either provided by us for free or is available free with Windows. The only cost to you is the hosting fee if you decide to place the system on the internet. Even then, your cost should be significantly less than £10 per month.

1.3 Configuration options

There are therefore several different ways to deploy the Local Information System. The following sections describe the main features:

- Local Information System hosted on the internet
- Local Information System hosted on your network
- Administration tools
- Connecting to other offices
- Connecting a desktop version to the intranet version
- Using portable devices offline

1.3.1 Local Information System hosted on the internet

The intranet version is designed so it can run on a web server hosted by an Internet Service Provider (ISP). The ISP will connect the web server to a URL – for example: www.yourbureaulis.org.uk. Anyone connected to the internet can then navigate to your URL and work with your Local Information System.
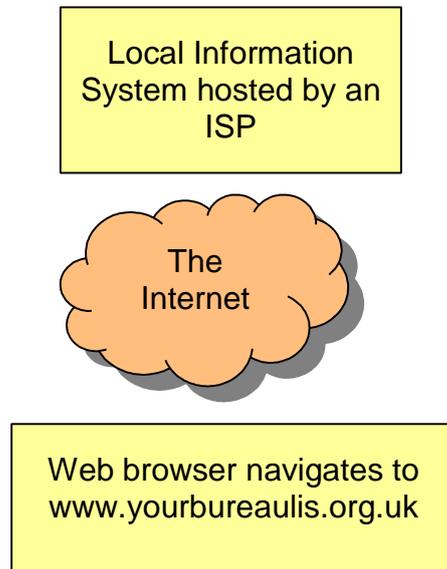
We provide a mechanism to secure the system with user ids and passwords. We also explain how to prevent search engines, like Google, showing your site in searches.

1.3.2 Local Information System hosted on your network

Most versions of Windows come with a web server – called Internet Information Server – included for free. The Local Information System uses IIS to serve web pages to browsers.
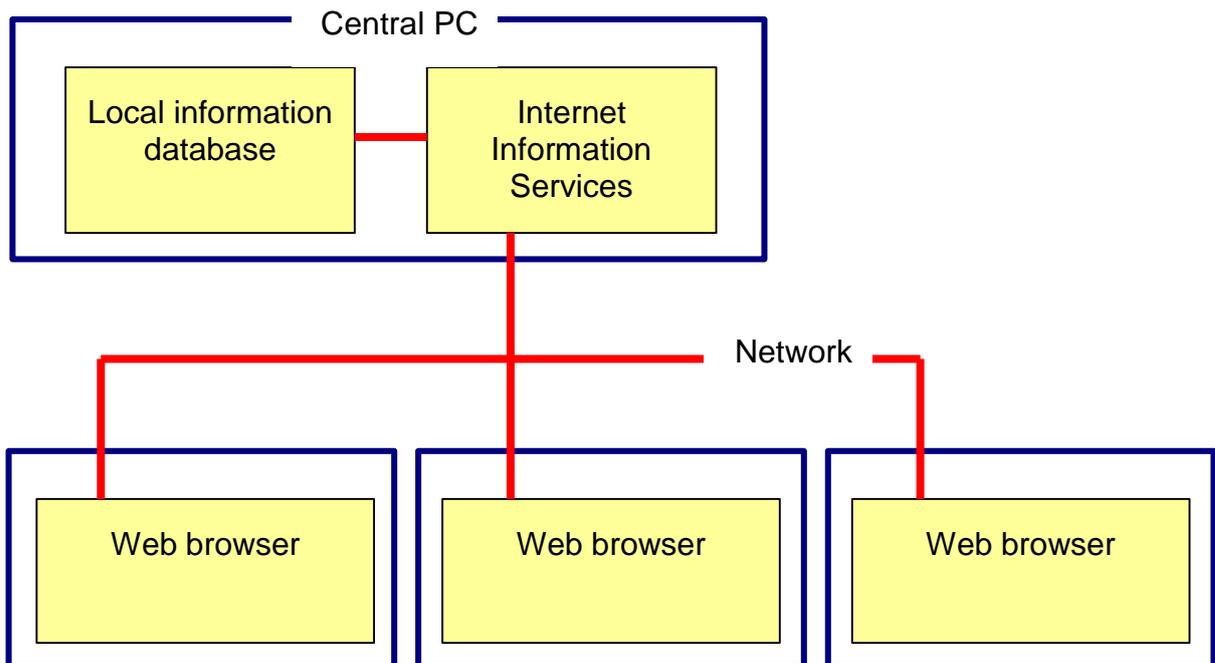
Note that the central PC doesn't have to be your office server – although it can be.

1.3.3 Administration tools

We provide the following tools to support the intranet version of the Local Information System:

1. A utility that checks links held by the database to see if they are valid

2. A backup utility designed to help you to automate backups of your database

3. A synchronisation utility that brings a database held by the intranet into line with a locally-held database

Each of these utilities runs on a Windows PC. They use the same technology as a web browser to connect to the intranet system. They work:

- Regardless of where you host your Local Information System
- Without needing special access to sites hosted on the internet
- Without you having to stop the Local Information System
- With both Microsoft Access and SQL Server: the two database technologies supported by the intranet version

1.3.4 Connecting to other offices

In the past, users of the desktop version of the Local Information System shared access with other offices by sending database copies over their networks. Direct access to a database over inter-office links was rarely practical.

If you host your Local Information System on the internet, then everyone with internet access, a valid id and a password can work with it. For example, they can get to it from:

- Any of your offices
- Outreach sites
- Home

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Alternatively, if you host the system on your network, the intranet version places relatively low demands on it. That means it's more practical to share data across network-connected offices:
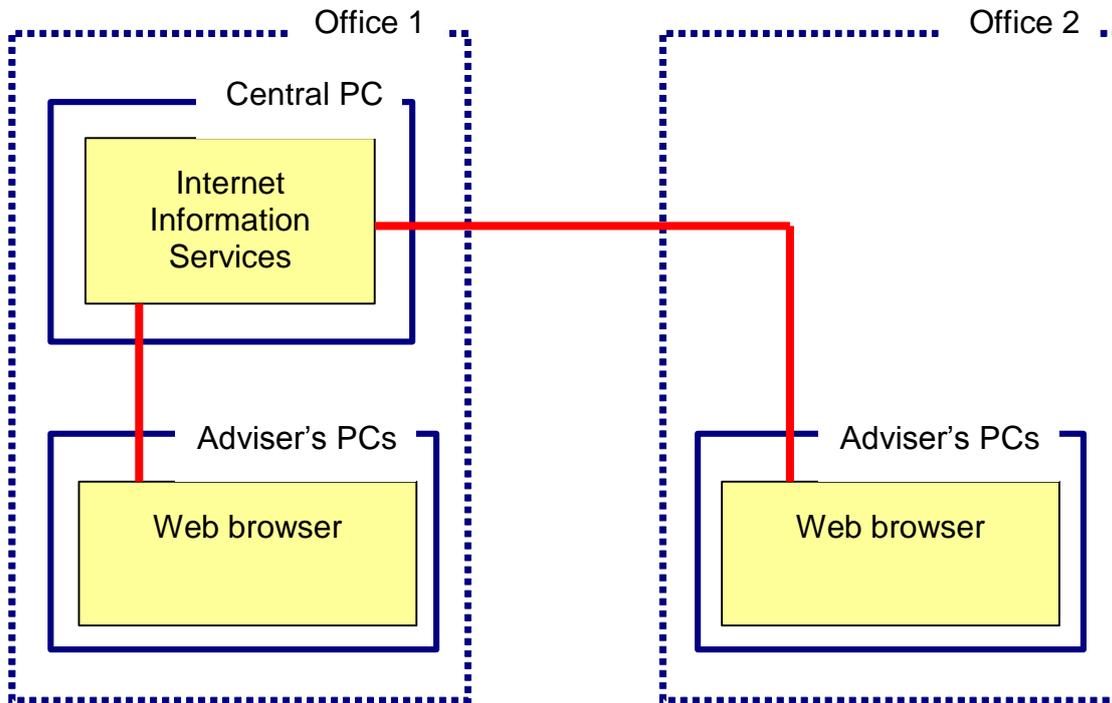
1.3.5 Connecting a desktop version to the intranet version

You can run the intranet version of the Local Information System without the desktop version, and vice versa.

You might find it useful, however, to use both versions simultaneously. We provide two main ways to do that.

If you host your Local Information System on the internet, you can update your web site with changes made by your desktop version…
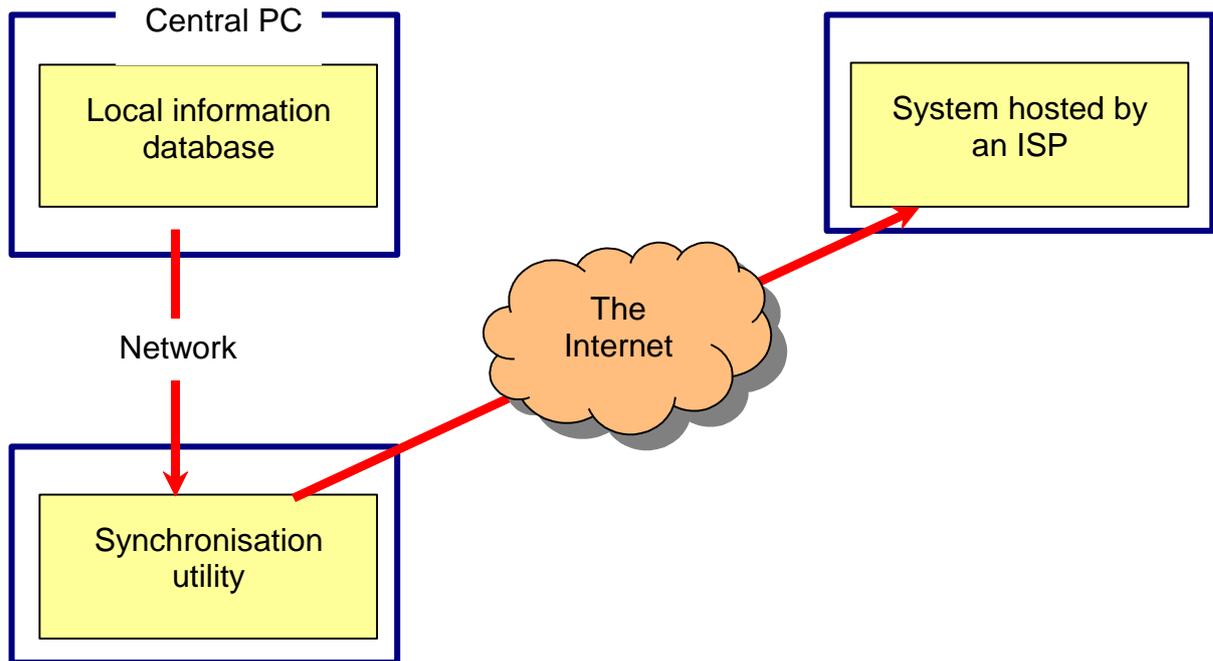
The utility reads data from the local database and updates the intranet version with any changes. There is also an option to delete all the data held by the intranet version and rebuild it from the local database.

Note that the data held by the intranet version is **either** updateable **or** synchronisable. It cannot be both. If you decide to use the synchronisation utility you will be unable to change the database via a web browser. We do, however, provide a mechanism to switch a synchronisable database to an updateable one and vice versa.

If you host your Local Information System on your network, the intranet and desktop versions can share the same database…
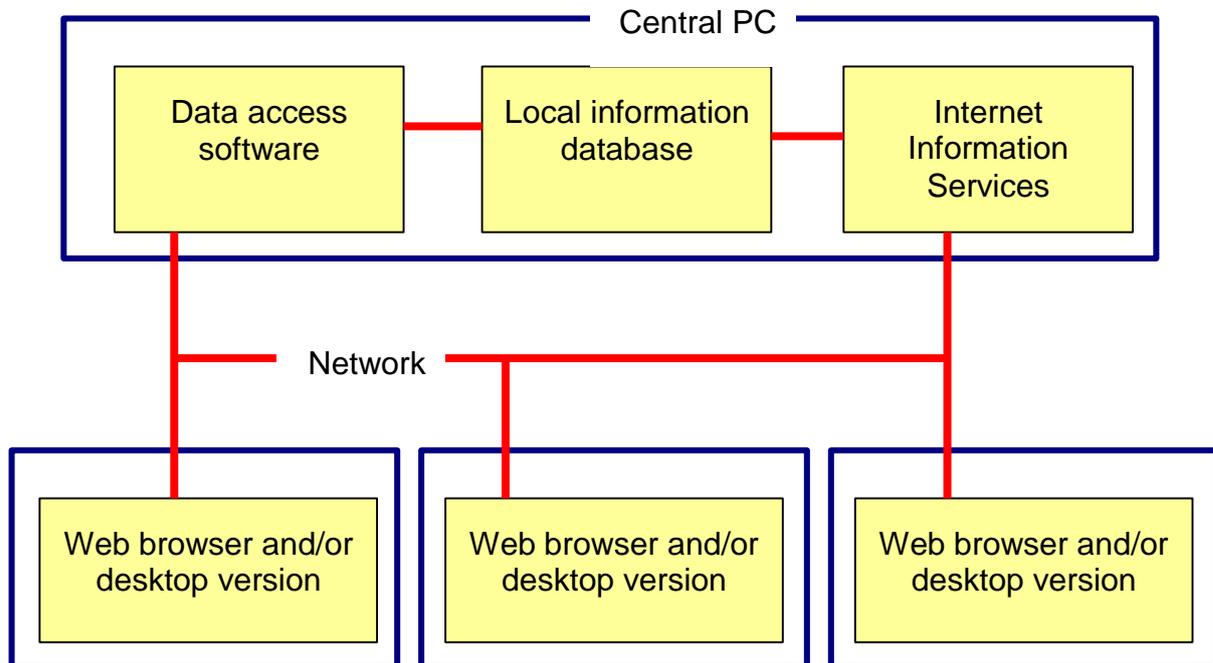
Changes made via the desktop version will be instantly available via web browsers. Similarly changes made via web browsers will be instantly available to desktop users.

Note, however, there is a small difference in the way HTML is handled between the two versions. We recommend using either the desktop or the intranet version to make most of your changes.

1.3.6 Using the document library

The intranet version of the system allows you to build a document library provided you use SQL Server as your database (the common way to implement the system on the internet). The document library provides two main benefits over using FTP to store documents on your web server:

1. The system controls access to documents in the library so they can be hidden from people that do not log on to the system
2. Documents are maintained in the library using a standard local information system page, administrators don't have to learn how to work with an FTP program

Documents are retrieved using a web address so they can be linked to items using web links rather than document links. Those links will work from any desktop version you install provided it has an internet connection. Further, you can link the document library to other systems and web sites you run – people will see the standard log on page if they try to connect to a document that is not available to anonymous users.

1.3.7 Using portable devices offline

Finally, it is possible to install the system stand-alone on a laptop. That's useful for advisers working at outreach locations without an internet connection or a connection to the home office.

The backup tool provided by the intranet version is designed so it can update the database held on a laptop simply by double-clicking an icon while the laptop can connect to the intranet version. The adviser can then take the laptop to an outreach location and use it there.

1.4 Server requirements

1.4.1 Internet hosting

To host the intranet version on the internet, your Internet Service Provider must support a Windows environment running:

- Internet Information Server (IIS)
- .NET version 2, 3 or 3.5 (ISP's supporting version 4 or later will almost certainly install 3.5 as well)
- SQL Server 2008[1] or later

We can also support an Access database, but there are few – if any – ISP's prepared to host Access databases. The system is not designed for Linux or MySql – sorry.

1.4.2 Hosting in your network

To run the intranet version on a central PC in your network, that PC must run either:

- Windows XP, or later
- Windows Server 2003, or later

The system was developed to run under Microsoft's .NET development environment. It requires version 2. Recent versions of Windows have this already installed. Note that .NET versions 3 and 3.5 also include version 2.

The PC must also have software for accessing the Local Information database. One of:

- Microsoft Access Database Engine 2010 (installed by Office 2010 or by downloading "Microsoft Access Database Engine 2010 Redistributable")
- Microsoft Access Database Engine 2007 (installed by Office 2007 or by downloading "2007 Office System Driver: Data Connectivity Components)
- Microsoft Data Access Components (MDAC) v2.7 (version 2.8 removes the interface we need).

We recommend Microsoft Access Database Engine 2010.

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[1] The Local Information System will work with earlier versions, but you might need some help from us

1.4.3 IIS Support

We've tested the intranet version works with IIS 5.1, IIS6, IIS7 and IIS8. That's all the versions of IIS installed with Windows since Windows XP and with Windows Server since Windows Server 2003.

1.5 Client requirements

1.5.1 Equipment

The Local Information System is designed to run on any equipment with a reasonably modern browser. For example, we have tested it on:

- Microsoft PCs and laptops
- Apple PCs and laptops
- Apple iPads
- Android tablets and phones

1.5.2 Browser support

We expect the system will work with most browsers. For example, we have tested it with:

- Internet Explorer versions 7, 8, 9, 10 and 11
- Android 'Internet'
- Chrome (Windows and Android)
- Firefox
- Safari - (OS X, IOS and Windows)

We do not intend to support IE6 or earlier.

The intranet version makes heavy use of JavaScript, which must be enabled in browsers for it to run.

2 Installing the intranet version in the internet

Installing the Local Information System as an internet site has a number of advantages:

- Advisers can access the Local Information System wherever they are working provided they have an internet connection
- The ISP will do a lot of the set up for you so you don't have to get to grips with installing server or database software
- Performance will usually be better than using a shared server or a desktop PC as a central PC

There are some drawbacks, however:

- If you don't already have an arrangement to use a hosted Windows server with database access, you might have to move any existing site and/or pay extra
- We designed the system with installation at an ISP in mind, but it's possible your selected ISP might impose constraints that mean the system will not work in their environment (to date that's not been an issue for any internet installations, though)
- You will need to install the intranet version and activate it within the ISP's server – unfortunately each ISP has a different way to do that, we can't give you step-by-step instructions

To help you with those issues we offer a free service to install your intranet software and/or explore problems you might encounter. We will need temporary access to your web site's administration id and password. You can revoke access when we have finished. To take advantage of this service, contact us via www.SeeITA.com/contact.shtml

The following sections provide guidelines for installing the intranet version under the following headings:

3. Select an Internet Service Provider
4. Decide a domain name (URL)
5. Purchase your hosting package
6. Setup IIS
7. Setup FTP
8. Populate the application folder
9. Test your initial setup

Once you have installed the intranet version successfully, read the remaining sections of this document starting from section 4 to learn how to complete your setup and test it.

2.1 Select an Internet Service Provider (ISP)

We describe the internet hosting requirements on page 12.

If you already have an ISP that hosts your bureau's web site you might be able to use the same one to host the Local Information System. If you currently use a Linux server you might be able to switch to a Windows server without losing any functionality. If you use a Windows server but

your package does not include SQL Server you can almost certainly upgrade it. If you are unsure whether you can use your existing ISP, contact us; we'll try to help.

If you need to switch to a different ISP, it's possible you can transfer your existing web site to the new ISP. Again, let us know if you need if you need help with this.

There are a large number of ISPs that are willing and able to host the Local Information System. So far we have used these ones:

- 1&1 – more details at http://www.1and1.co.uk/hosting-windows
- Fasthosts – more details at http://www.fasthosts.co.uk/web-hosting/

We have nothing to gain by suggesting either of them.

2.2 Decide a domain name (URL)

Most packages come with a free domain. Those that don't will allow you to add one for an additional fee. You don't need to buy one to start with, however. You will always get an internal domain name – it won't be pretty or memorable, but it will get you going. You will be able to add a domain later.

Typically CAB domain names are: www.<bureau name>cab.org.uk

.org.uk indicates a charity. We suggest you follow this convention if you intend to use the same site for your bureau's web site and your Local Information System. If you have to use a new ISP and you already have a URL for your bureau, you can set the site up first and – when you're happy with it – you can switch your URL from the old site to the new one.

If you are creating a site just to host your local information system, we suggest you add 'lis' to the end of your existing domain so www.<bureau name>cab.org.uk becomes www.<bureau name>cablis.org.uk. That makes the URL easy to remember.

2.3 Purchase your hosting package

ISPs allow you to purchase hosting packages with a credit card. You'll probably need to ask someone to purchase the package for you with their credit card and claim the amount back as expenses. If possible, you should use your bureau's name to register the site. That way you won't have to jump through hoops to get the site reassigned later on.

You will then get:

- An id and password for your control panel
- A link for your control panel
- A URL for your site (if you didn't purchase one)

The control panel will allow you to setup your web site to run the Local Information System.

2.4 Setup IIS

The control panel will provide a way to:

- Create web site folders. If your site is solely for use by your Local Information System, your application folder will be your site's root folder[2]. Just create subfolders called 'LogDirectory' and 'Documents'. Otherwise create a CABLIS subfolder to your root folder (CABLIS will be your application folder), and LogDirectory and Documents subfolders to CABLIS.
- Activate IIS for your application folder.
- Grant access permissions to IIS – you will need to grant IIS full access to LogDirectory.

2.5 Setup FTP

FTP stands for File Transfer Protocol. It's the mechanism you need to copy files and folders to and from your web site.

The control panel will either provide an FTP facility built into the site or provide a way to allow you to run an FTP program against your site. If you need to run an FTP program, the control panel will allow you to:

- Find the FTP address of your site
- Find out your FTP id and password, or create a new one

The most widely-used FTP program is FileZilla available for free from http://filezilla-project.org/. When you set it up with the FTP address, id and password you will be able to copy files and folders to and from your web site.

2.6 Populate the application folder

Create a folder on your PC to hold your local copy of the web site. Create subfolders to mirror the subfolders you created in your web site.

Copy all the contents of folder /Intranet/CABLIS including all its subfolders from the installation media to your local copy of the application folder.

Add the following text to file web.config immediately before the last line that reads "</configuration>".

```
<system.webServer>
   <defaultDocument>
      <files>
         <add value="LIS.aspx" />
      </files>
   </defaultDocument>
</system.webServer>
```

It instructs IIS to load the database search page by default.

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[2] The top level folder that will already have been created for you

Add a file called Robots.txt to your application folder containing:

```
User-agent: *
Disallow: /
```

Well-behaved search engines will see the file and won't try to index the Local Information System.

Use FTP to copy all the files and folders from your local copy to the web site.

2.7 Test your initial setup

You should now be able to run the intranet application by navigating to your web site's URL. You will need to append /CABLIS to the URL if you created a CABLIS application folder. The application won't run properly yet (see section 4 to continue to set up your web site). Instead you'll see an error message like this:

Sorry, there has been an internal error

The error description is:

The system's configuration file referred to by file web.config does not exist or access control prevents the site from seeing it.

Reload the Local Information System

3 Installing the intranet version on your network

You need to take the following steps to install the intranet version of the Local Information System on your network:

1. Decide on the central PC
2. Install Internet Information Services (IIS)
3. Allow access to IIS from other PCs in your network
4. Decide where to put the application folder
5. Install the intranet application

Once you have installed the intranet version successfully, read the remaining sections of this document to learn how to set it up and test it.

3.1 Decide on the central PC

Before installing the intranet version of the Local Information System, you need to decide which PC to use to serve the other PC's on the network.

You should consider using the same PC that holds the database. That will minimise the overhead of transferring data to and from the database.

For many bureaux, the PC that holds the database will also be the office server.   That's also likely to be the best location for the intranet server.

There are some other considerations:

1. If the PC holding the database is relatively low powered, or if it is already heavily used, you might want to consider installing the intranet server on a different PC to keep response times reasonable.
2. If you already have IIS running in your network, you should use the same PC to host the intranet. That will save you a lot of time and effort setting it up. We provide some more guidance in the appendices.

You might be tempted to use a central PC connected to the Local Information database across an inter-office network. That's unlikely to work well unless the inter-office connection runs at a minimum of 10mbps – preferably more.

Note that – having installed the intranet version on a PC – you might decide later you want to move it. That's not a problem; simply restart the installation process on the new PC.

3.2 Install Internet Information Services (IIS)

The following instructions are based around installing IIS on a PC running:

- Windows 7
- Windows 8
- Windows XP Professional
- Windows Server 2008

The procedure for other versions of Windows will be similar. If you need more help, there is plenty of support available on the Internet. We can also help you if you contact us with specific issues.

3.2.1 Windows Vista, Windows 7 and Windows 8

To find out if IIS is already installed: use the 'Programs and Features' option of the control panel. Click the 'Turn Windows features on or off' link at the top left of the window. Note you will need to be logged on as the PC's administrator, or have access to the administrator id and password to use this option:
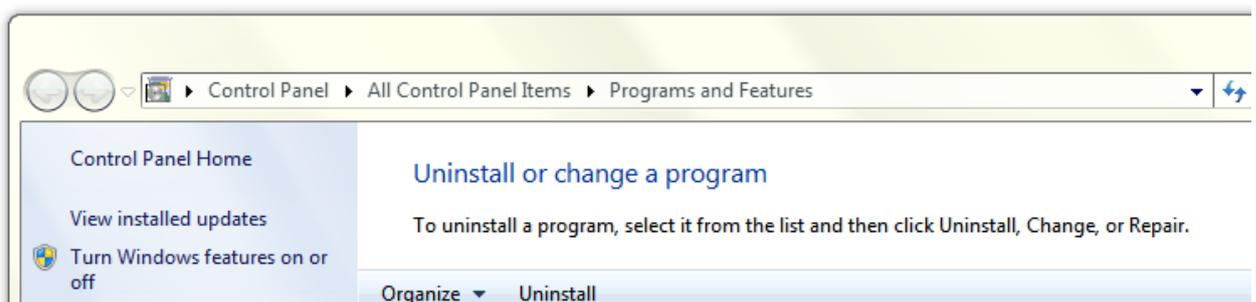
In the list, you will see 'Internet Information Services':
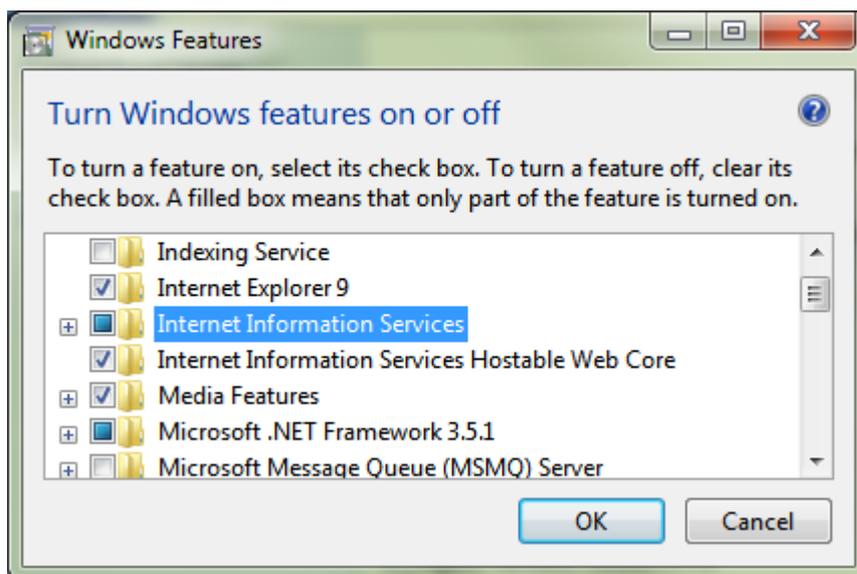
Click the '+' next to Internet Information Services to see the available options. Make sure that the following options are selected (it doesn't matter if other options are also selected):

- Under 'Web management tools', select option 'IIS Management Console'
- Under 'World Wide Web Services':
    - Under 'Application Development Features', select:
        - .NET extensibility (or .NET extensibility 3.5)
        - ASP.NET (or ASP.NET 3.5)
        - ISAPI Extensions
        - ISAPI Filters
    - Under 'Common HTTP features', select:
        - Default document
        - HTTP Errors
        - HTTP Redirection
        - Static Content
    - Under 'Performance Features' select both Dynamic and Static Content Compression
    - Under 'Security', select:
        - Basic Authentication
        - IP Security
        - Request Filtering
        - URL Authorization
        - Windows Authentication

If all the above are already ticked click 'Cancel' – you do not need to install IIS. Otherwise, tick all the options above and click OK to install IIS.

To test whether IIS is working correctly type "localhost" into the address bar of a browser running on the same PC. For a fresh install, you should see a welcome message from IIS similar to one of the following:

3.2.2 Windows XP Professional

IIS is provided as a component of Windows XP Professional. To find out if IIS is already installed: use the 'Add or Remove Programs' option of the control panel. Click the 'Add/Remove Windows Components' icon on the left:
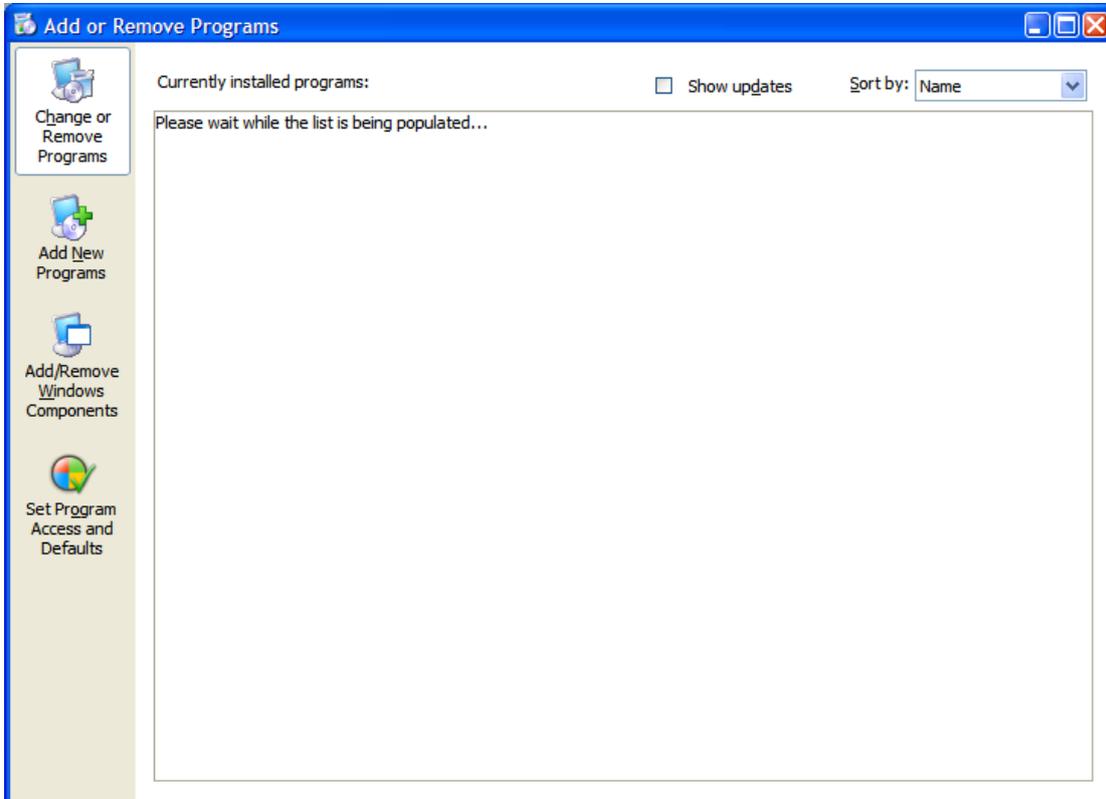
You will see a progress screen:
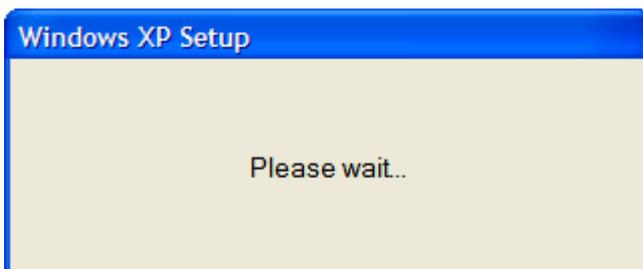
Find the 'Internet Information Services (IIS)' entry:
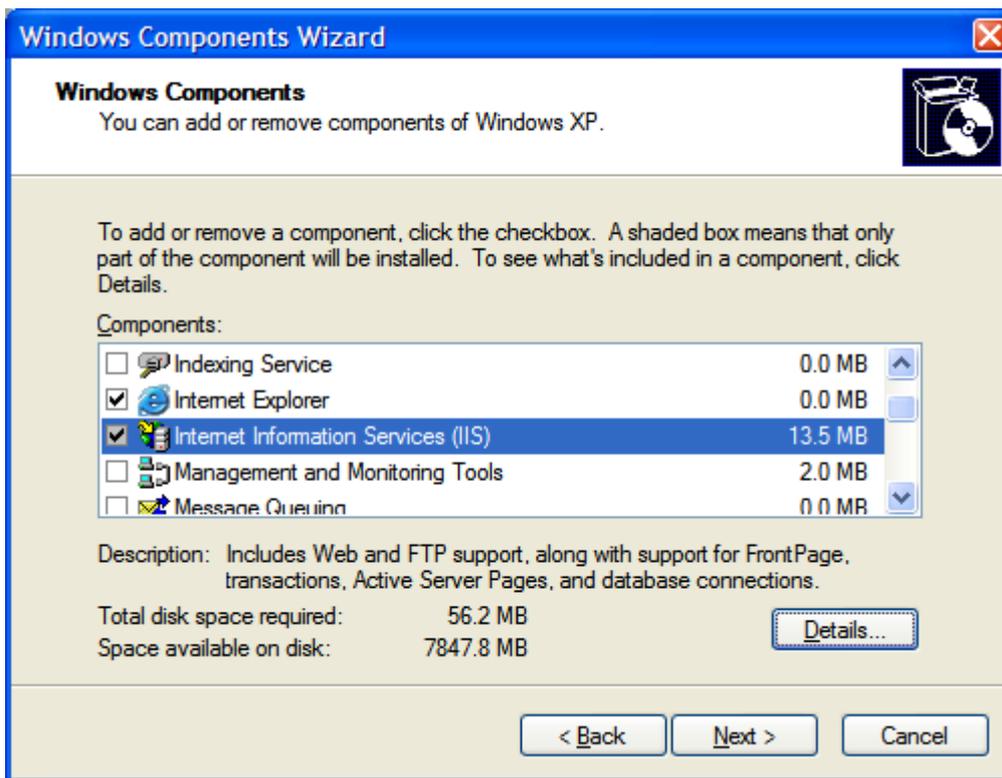
Tick the entry and click the 'Details…' button to review the selected options (and sub-options). As a minimum, make sure the following are ticked:

- Common Files
- Internet Information Services Snap-In
- World Wide Web Service:
  - World Wide Web Service

There is no harm in ticking additional options.

Click 'OK' until you return to the 'Windows Components Wizard'. Click 'Next' to start the installation process. You might be asked for the installation disk at this point.

To test whether IIS is working correctly type "localhost" into the address bar of a browser running on the same PC. You will see an id and password challenge. Enter your PC's administration id and password. (Id: administrator and a blank password might work). You should then see something like:
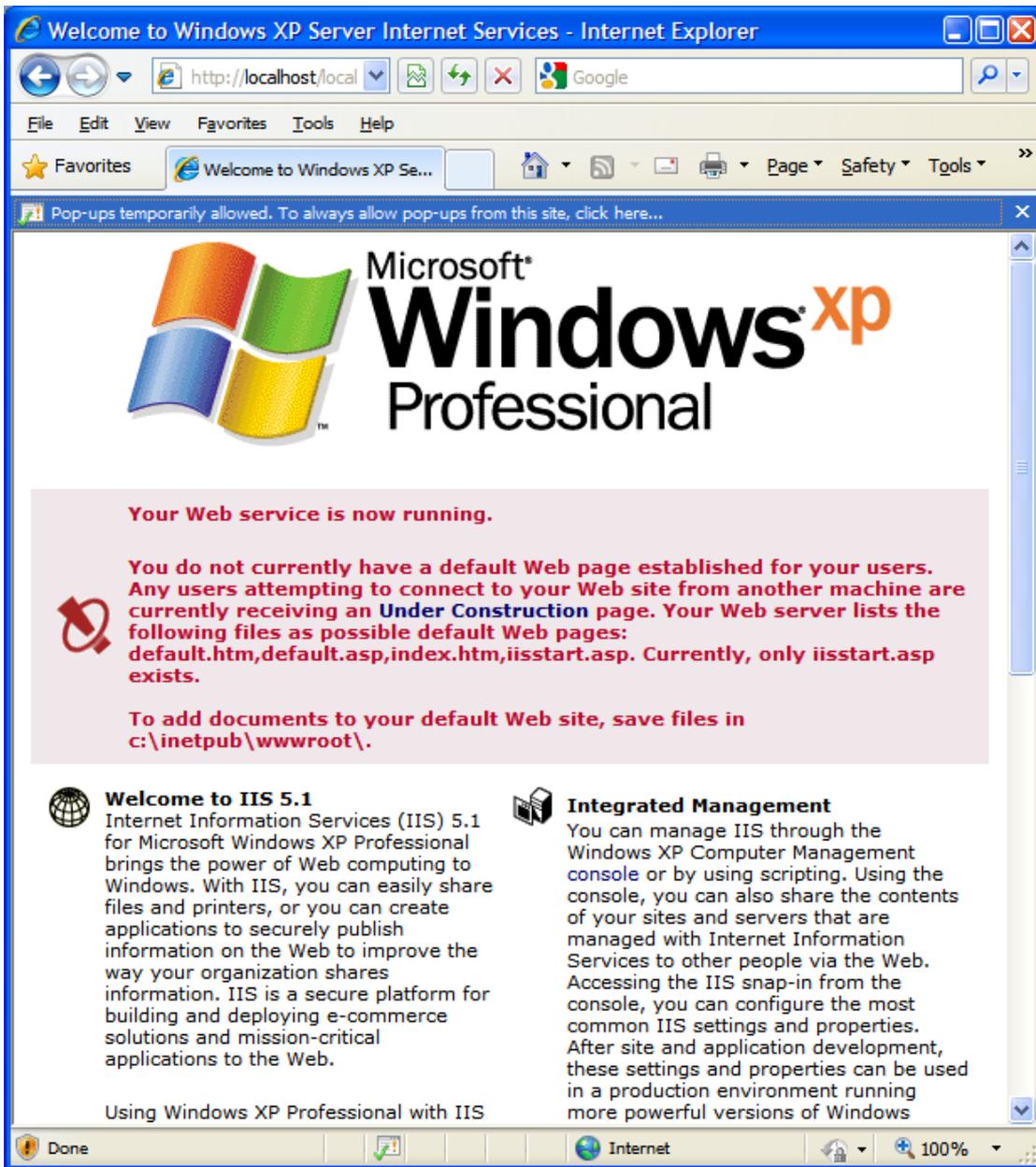
3.2.3 Windows Server 2008

IIS might already be active on your server. Try typing "http://localhost" in to a browser on the server and see if there's a response. If not, you need to add the 'Web server' role. To do that:

- Click 'Start', point to 'Administrative Tools' and click 'Server Manager'
- In 'Roles Summary', click 'Add Roles'
- Use the 'Add Roles wizard' to add the web server role

3.3 Allow access to IIS from other PCs in your network

If you have Windows Firewall installed and running, you will need to tell it to allow other PCs to access IIS. To do that, use the 'Windows Firewall' option of the control panel.

Click the 'Allow a program or feature through Windows Firewall' link at the top left of the screen:
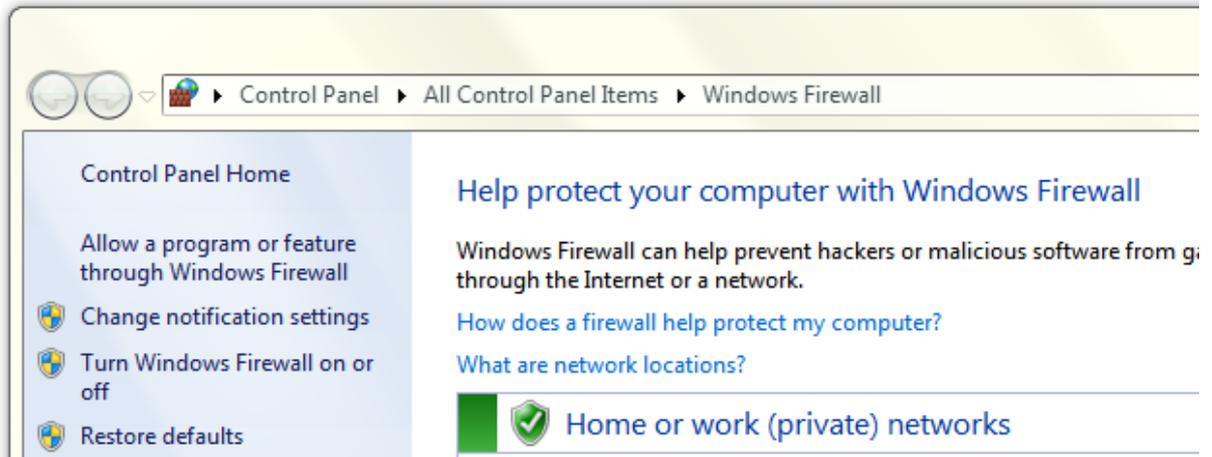
You will see 'World Wide Web Services (http) towards the bottom of the list (the other selections are not relevant):

If the option is ticked, there's nothing more to do. Otherwise, click 'Change settings' (you will need to be logged on as the PC's administrator, or have access to the administrator id and password). Tick the 'World Wide Web Services' option and click OK to enable access.

If you use different firewall software, you will need to ensure that other PCs can access IIS via port 80.

To test IIS is available you'll need the address of your central PC on the network. You can use one of:

- The central PC's name. For example, if you access files on the PC using references starting with "\\Server01\", you should be able to use address "http://Server01/".
- The Central PC's IP address. In Vista or Windows 7, go to the 'Network and sharing center' via the control panel or by right clicking the network icon in the right hand side of the task bar. Click the link next to 'Connections' (it might appear as 'status'). In the 'Wireless Network Connection Status' panel, click 'Details…'. The IP address will be shown next to 'IPv4 Address'. The address will be something like: "http://192.168.0.66/".

Enter the PC's address in the address bar of a browser on another PC in the network and you should see the same page you saw when you tested IIS in the previous section.

Make a note of this address. You'll need it again later.

3.4 Decide where to put the application folder

By default, IIS installs a folder called 'inetpub' at the root of your primary drive (usually your 'C' drive). Under that folder you will see a folder called wwwroot. If you have not used IIS on the Central PC before, wwwroot is the default folder for IIS applications. The simplest option is to create a CABLIS subfolder to the wwwroot folder.

If you use an alternate folder for IIS applications, the simplest option is to create a CABLIS subfolder to that folder. The appendices provide instructions for finding the current IIS application folder.

Alternatively, you can use any location on the central PC that suits you. For example, there might be a location that is a better fit with your backup strategy. Create a CABLIS folder there.

3.5 Install the intranet application

In the previous step, you decided the location for the CABLIS folder that will hold the intranet application.

If you haven't already done so, create the CABLIS folder at your chosen location. Copy the contents of the Intranet/CABLIS folder from the installation media to it.

If you chose a location that is not a subfolder of the IIS application folder, you will need to create a virtual folder in IIS. The appendices explain how to do that.

Next, create an application pool for your application. That will allow you to start and stop the Local Information System without interfering with any other intranet applications you might have. The appendices explain how to do that.

Tell IIS your CABLIS folder is an application. The appendices explain how to do that.

Tell IIS that LIS.aspx is the default page for the CABLIS application. The appendices explain how to do that.

You should now be able to run the intranet application by navigating to http://localhost/CABLIS in a browser on the central PC. The application won't run properly yet (you'll be setting it up in the next section). Instead you'll see an error message like this:

Sorry, there has been an internal error

The error description is:

The system's configuration file referred to by file web.config does not exist or access control prevents the site from seeing it.

Reload the Local Information System

4 Configuring the intranet application

At this point you will have created your intranet application but it doesn't run successfully because you have not yet configured your system.

You configure your system by updating text files known as configuration files. You can use any text editor to do that. Windows Notepad, for example.

If you decide to run the desktop system in the same network as the intranet system, you can point the intranet to the desktop configuration files. That means you can use the desktop Network Install Program to change many of the configuration values to update both the desktop programs and the intranet simultaneously.

If you host your intranet on the internet you will be unable to share config files with the desktop version. You can copy the config files from your desktop installation (if you have one) or you can create a single configuration file from scratch.

Changes to the Local Information System configuration files do not take effect straightaway. For performance reasons, the intranet version reads the configuration files every four hours, or so, and makes an internal copy. You can see the configuration values in effect at any time by navigating to page 'ShowConfigurationValues.aspx'. At the foot of that page you will see a 'Reload the cached values' button. Click this to force the system to re-read the parameters immediately instead of waiting for the next scheduled read. The change will update the values for everyone using the system. They will not lose their session.

You will also need to update a file called web.config in your application folder. Note that updating web.config will force the web server to reset. People will lose their sessions and they will get logged out. You should not, therefore, update web.config while the system is being used heavily.

If you host your intranet on the internet you will have to update the files in your local copy and use an FTP program to copy your changes to the web site.

The following sections cover how to:

1. Point the intranet at desktop configuration files
2. Create a Local Information System configuration file
3. Configure your database
4. Make sure links to documents work correctly
5. Configure password validation
6. Configure full text searching
7. Configure the logon rubric
8. Configure the text editor
9. Decide how to report unexpected errors
10. Test the Local Information System
11. Deal with problems

4.1 Point the intranet at desktop configuration files

Add entries like this between `<appSettings>` and `</appSettings>` in file web.config:

```
<add key="ConfigurationFile"
    value="configFilePath\LocalInformation.xml"/>
<add key="MaintenanceConfigurationFile"
    value="configFilePath\LIMaintenance.xml"/>
```

Replace *configFilePath* with full path of the central PC's systemObjects folder. If you are unsure where that is, run the Local Information System and double click the version number. You will see a diagnostic message that gives you the location of the database. The systemObjects folder is a subfolder to the folder containing the database. Use a local reference (like D:\LI\systemObjects) where possible in preference to a machine name (like \\Server01\LI\systemObjects). We have encountered file permission problems when using server names (see page 57 for more detail).

4.2 Create a Local Information System configuration file

If at all possible, we suggest you point the intranet at desktop configuration files (see previous section) – that makes maintenance easier.

If that's not possible (if you host the intranet on the internet, for example) you will have to create a single configuration file called LocalInformation.config in the application folder.

You have two ways to create LocalInformation.config:

1. Make a configuration file by copying entries from your desktop system
2. Make a configuration file from scratch

4.2.1 Make a configuration file by copying entries from your desktop system

Make a copy of LocalInformation.xml from your central PC's systemObjects folder. The previous section explains how to find out where that is.

Open the copy in a text editor (such as Notepad). You will see configuration parameters enclosed in parameter names. For example, parameter databaseName appears something like this:

```
<databaseName>LocalInformation.mdb</databaseName>
```

To create your configuration file:

1. Delete entries you don't need (if present):
    a. databaseName
    b. databaseDirectory
    c. engineType
    d. formWidth
    e. formHeight
    f. formTop
    g. formLeft

     h.   formSplitterLeft
     i.   logDirectory
     j.   resultSortOrder
     k.   stopNewWindow
     l.   searchPrefix
     m. searchSuffix
     n.   scale
     o.   zoomLevel

2. Open file LIMaintenance.xml from the systemObjects folder and copy the 'stopList'parameter (which includes 'stop' parameters) into your configuration file immediately before the last line which reads `</xml>`.
3. Add a line containing `<hideDocReferences/>` immediately before the last `</xml>` line.
4. Store your configuration file in the application folder.

4.2.2 Make a configuration file from scratch

Create text file LocalInformation.config using this template:

```
<xml>
  <BureauName>aaa</BureauName>
  <softButtonA>
    <caption></caption>
    <tooltip></tooltip>
    <action></action>
    <parameter></parameter>
    <numberOfDaysForNew></numberOfDaysForNew>
  </softButtonA>
  <softButtonB>
    <caption></caption>
    <tooltip></tooltip>
    <action></action>
    <parameter></parameter>
    <numberOfDaysForNew></numberOfDaysForNew>
  </softButtonB>
  <stopList>
    <stop>a</stop>
    <stop>an</stop>
    <stop>and</stop>
    <stop>as</stop>
    <stop>at</stop>
    <stop>by</stop>
    <stop>for</stop>
    <stop>in</stop>
    <stop>is</stop>
    <stop>it</stop>
    <stop>its</stop>
    <stop>of</stop>
```

```
      <stop>on</stop>
      <stop>or</stop>
      <stop>to</stop>
      <stop>the</stop>
   </stopList>
   <hideDocReferences/>
</xml>
```

Replace *aaa* with your bureau's name (adding a trailing "-" if you do not want the system to add "Citizens Advice Bureau" after the name.

The stop list contains all the words that are ignored when indexing or searching the local information database. You can remove words or add as many new ones as you want.

The `<softButtonA>` and `<softButtonB>` parameters control two optional buttons displayed to the left hand side of the search page. Delete either or both parameters if you don't need it/them.

To use a soft button, complete the parameters for the button as follows:

- **caption** - The caption that is shown on the button
- **tooltip** - The tooltip that will be shown when someone hovers their mouse over the button
- **action** - The action that will be taken if the button is clicked. One of:
  - **Index lookup**. The button will run a search on the database as if the user had entered one or more search terms and pressed the 'Search' button. Use **parameter** to specify the search term(s) you want to use. You will also need to define how many days back the program should look for new items when deciding whether to highlight the button with a red border; specify zero if you do not want people to be alerted to updates.
  - **Web lookup**. The button will display a web page. That could be an often-used web page, or it could be a link to a page that displays a list of useful links. Use **parameter** to specify the address of the web page you want to show.
  - **Document lookup**. The button will display a document from your network. Use **parameter** to specify either the id of an item in your database or the address of a document.
- **parameter** - The parameter associated with the button action: either one or more search terms, a web address, an item number or a document address
- **numberOfDaysForNew** - the number of days the reader program should look back to decide whether to highlight the soft button. "0" suppresses the alert. Used only if the action is "Index lookup".

Save your configuration file and store it in your application folder.

4.3 Configure your database

If you intend to use the same database as your desktop system and you are sharing the same configuration files, you have already configured your database. There's nothing more to do.

Otherwise, the following sections describe how to configure different types of database:

1. SQL Server database
2. Access database stored locally
3. Access database via a connection string

If you create a new database, it will start empty and synchronisable. That means you can use the synchronisation utility to copy the data from a desktop version of the Local Information System. You will be unable to update the database via the web. We describe how to switch the database to be updateable on page 59.

To start with your new database has just one maintenance id and password: TEST and TEST.

We describe strategies for capturing data into your new database on page 62.

4.3.1 SQL Server database

Your web site's control panel will provide a way to:

- Create a SQL Server database
- Run a script against it to create the tables needed by the Local Information System

We provide the script you need in the installation media: /Intranet/Synchronisable Databases/CreateLISDatabaseScript.sql

When you create your database you will be given a database name. You will need to update the script with the name of your database – see the comments at the beginning of the script (you can open it with Notepad) for more details.

We also provide a backup copy of an empty synchronisable database called SQLServer.bak which might be a useful alternative to building the database from a script.

Your ISP will also give you a database administrator id, password and database address. Use these to add a connection string like this…

```
<add name="LocalInformationSystem"
    connectionString="Server=xxx;Database=yyy;User=zzz;Password=ppp;Timeout=ttt;" />
```

… immediately below the line that reads `<connectionStrings>` in your web.config file, where:

- `xxx` is the database name
- `yyy` is the address of the database
- `zzz` is the database's admin id
- `ppp` is the password

- `ttt` is the time allowed to make a connection before it has been deemed to fail. The first time you use a database in a day can take more than the default 15 seconds. We suggest an initial value of 30.

Add the following parameter immediately after `<appSettings>` in your web.config file:

```
<add key="UseSql" value="yes" />
```

4.3.2 Access database stored locally

If your site supports Access databases, you can store the database as part of your application without having to know its exact location on the server:

1. Create a folder called Database immediately below the application folder
2. Copy LocalInformation.mdb from the installation media: /Intranet/Synchronisable Databases to your new Database folder
3. Add the following line to your LocalInformation.config file in the application folder:
   `<databaseName>LocalInformation.mdb</databaseName>`
   immediately after the line containing `<xml>`. Since you will not have provided a
   `<databaseDirectory>` parameter, the system will automatically look for the database in your Database folder.

4.3.3 Access database via a connection string

For complete flexibility, you can specify how to connect to an Access database using a connection string. This method overrides any other database information in the configuration files.

If your ISP provided you with a connection string, add a line like this…

```
<add name="LocalInformationSystem" connectionString="xxx" />
```

… immediately below the line that reads `<connectionStrings>` in your web.config file, where xxx is the connection string you've been given.

Otherwise add a line like this:

```
<add name="LocalInformationSystem"
    connectionString="Provider=xxx;Data Source=yyy;Persist
    Security Info=False;" />
```

… immediately below the line that reads `<connectionStrings>` in your web.config file, where:

- `xxx` is the name of the database connection software, Microsoft.ACE.OLEDB.12.0 to use the Microsoft Database Engine or Microsoft.Jet.OLEDB.4.0 to use MDAC[3].
- `yyy` is the full path and name to your database. If you include "|ApplicationFolder|" in your connection string the system replaces it with the path to your application folder.

---

[3] If you are hosting your local information system on the web it is unlikely your ISP will support MDAC, try MSDE. The TestFileReferences.aspx page (see on) lists all providers supported by your server.

4.4 Make sure links to documents work correctly

We suggest you do not use document links if you are creating a system from scratch. Instead use web links to retrieve documents from the document library or from the documents folder on your web server. Web links are more flexible, easier to maintain and – if you use the document library – can be access controlled. If your system has a small number of document links we suggest you replace them with web links.

For documents in the document library use a link like this:

`http://<site address>/getattachment.aspx?f=sampledocument.pdf`

For documents in the document folder use a link like this:

`http://<site address>/documents/sampledocument.pdf`

If you don't use – or plan to use – document links in your Local Information System, you can skip the rest of this step.

The desktop system supports two types of link from an item in the database:

1. Web links are links to pages or documents held on a web server
2. Document links are links to documents (including static HTML pages) held by a file server

Security measures in web browsers mean that document links served through the intranet version will be blocked even though they work fine in the desktop version. To be useful in the intranet, document links have to be converted to web addresses. If you want to retain document links, you need to tell the system to convert them to point to the document library or a subfolder of the Local Information System. The way you do this depends on whether your database is hosted on the internet, or not.

4.4.1 Intranet hosted on the internet – using the document library

First identify all the documents linked to by document links in your database and upload them to the document library. Then add an entry like this this between `<appSettings>` and `</appSettings>`:

`<add key="DocumentLinkReplacements" value="replacementList"/>`

where *replacementList* is a sequence of text items separated by |. The items are in pairs: the first being part of a document link to replace; the second being the text to replace it.

Suppose your documents are all held in a folder referenced as \\Server\DocLib. You would need to add a parameter like this:

```
<add key="DocumentLinkReplacements"
value="file:///\\Server\DocLib\|GetAttachment.aspx?f="/>
```

This would convert a document reference like: \\Server\DocLib\Subfolder\Document.pdf to: GetAttachment.aspx?f=Document.pdf which can be linked successfully from a web browser[4].

Note that "file:///" is automatically prepended to document links that do not already start with "file:".

Suppose you also had a folder referenced as d:\AnotherLib you would need to add a parameter like this:

```
<add key="DocumentLinkReplacements" value="
file:///\\Server\DocLib\|GetAttachment.aspx?f=|
file:///\\Server\DocLib\Subfolder\|GetAttachment.aspx?f="/>
```

This would convert a document reference like: d:\AnotherLib\Document2.pdf to: Documents\AnotherLib\Document2.pdf.

You can add as many pairs as you need to convert all your document references.

Note you will need to keep your local document libraries and the documents library on the web in step with each other if people are not to see different documents via the intranet and the desktop.

4.4.2 Intranet hosted on the internet – using the documents folder

You have no choice but to copy your documents to the web site since an internet hosted web site cannot connect to your local network.

Identify all the folders linked to by document links in your database. If a folder contains documents in several subfolders, that counts as just one folder; you do not need to map the subfolders. Then:

1. Create a subfolder to the application folder for each document folder giving each one a unique name.
2. Copy the documents from each local folder to the equivalent document folder on the web.
3. Add an entry like this between `<appSettings>` and `</appSettings>`:

   ```
   <add key="DocumentLinkReplacements" value="replacementList"/>
   ```

   where *replacementList* is a sequence of text items separated by |. The items are in pairs: the first being part of a document link to replace; the second being the text to replace it.

---

[4] Case doesn't matter when specifying replacements. "\\Server" will match "\\server", for example.

Suppose your documents are all held in a folder referenced as \\Server\DocLib. Suppose you created a web folder called "Documents" containing the same documents as DocLib. You would need to add a parameter like this:

```
<add key="DocumentLinkReplacements"
value="file:///\\Server\DocLib\|Documents\"/>
```

This would convert a document reference like: \\Server\DocLib\Subfolder\Document.pdf to: Documents\Subfolder\Document.pdf which can be linked successfully from a web browser[5].

Note that "file:///" is automatically prepended to document links that do not already start with "file:".

Suppose you also had a folder referenced as d:\AnotherLib and you created a subfolder to Documents called AnotherLib containing the same documents. You would need to add a parameter like this:

```
<add key="DocumentLinkReplacements"
value="file:///\\Server\DocLib\|Documents|file:///d:\AnotherLi
b|Documents\AnotherLib\"/>
```

This would convert a document reference like: d:\AnotherLib\Document2.pdf to: Documents\AnotherLib\Document2.pdf.

You can add as many pairs as you need to convert all your document references.

Note you will need to keep your local document libraries and the documents folder on the web in step with each other if people are not to see different documents via the intranet and the desktop.

4.4.3 Intranet hosted on your local network

Identify all the folders linked to by document links in your database. If a folder contains documents in several subfolders, that counts as just one folder; you do not need to map the subfolders. Then:

1. Create a virtual folder for each document folder giving each one a unique name. The appendices explain how to do this.

2. Add an entry like this between `<appSettings>` and `</appSettings>`:

   ```
   <add key="DocumentLinkReplacements" value="replacementList"/>
   ```

   where *replacementList* is a sequence of text items separated by |. The items are in pairs: the first being part of a document link to replace; the second being the text to replace it.

   Suppose your documents are all held in a folder referenced as \\Server\DocLib. Suppose you created a virtual folder called "Library" pointing to the folder. You would need to add a parameter like this:

---

[5] Case doesn't matter when specifying replacements. "\\Server" will match "\\server", for example.

```
<add key="DocumentLinkReplacements"
value="file:///\\Server\DocLib\|Library\"/>
```

This would convert a document reference like: \\Server\DocLib\Subfolder\Document.pdf to: Library\Subfolder\Document.pdf which can be linked successfully from a web browser[6].

Note that "file:///" is automatically prepended to document links that do not already start with "file:".

Suppose you also had a folder referenced as d:\AnotherLib and you created a virtual folder called AnotherLib pointing to the folder. You would need to add a parameter like this:

```
<add key="DocumentLinkReplacements"
value="file:///\\Server\DocLib\|Library|file:///d:\AnotherLib|
AnotherLib"/>
```

This would convert a document reference like: d:\AnotherLib\Document2.pdf to: AnotherLib\Document2.pdf.

You can add as many pairs as you need to convert all your document references.

4.5 Configure password validation

When someone logs in to the intranet, we show a button allowing them to change their password in the left hand panel of the main search page.

By default, the following validation rules are applied to new passwords:

- The password must be at least 6 characters
- It must contain at least one upper and lower case character
- It must contain at least one character that is not alphabetic or numeric

You can change the default by adding the following below `<appSettings>` in web.config:

```
<add key="PasswordValidationString" value="abc"/>
```

where:

- `a` = "n" to disable the mixed case check, anything else to enable it
- `b` = "n" to disable the special character check, anything else to enable it
- `c` = the minimum number of characters allowed in new passwords

4.6 Configure full text searching

If you are using a SQL server database then the system supports full text searching by default. This allows people to search all the text of an item. The mechanism for doing that is not very efficient, however. If you find it affects performance, or runs too slow, you can disable full text searching by adding this line below `<appSettings>` in web.config:

```
<add key="SuppressFTSearch" value="yes" />
```

---

[6] Case doesn't matter when specifying replacements. "\\Server" will match "\\server", for example.

4.7 Configure the logon rubric

You can change the text shown to people logging on to the system. For example, you could tell people who to go to if they do not have a user id. You specify the rubric you want to use by adding a `<LogonRubric>` setting below `<appSettings>` in web.config. You can include new lines in the setting which are translated into new lines in the rubric. The default value is:

```
<add key="LogonRubric" value="Please provide your Local
    Information System user id and password to gain access to the
    system" />
```

4.8 Configure the document library

Use a MaximumAttachmentSize setting to specify the largest size of document (in Mb) allowed in the document library. For example:

```
<add key="MaximumAttachmentSize" value="2"/>
```

The web server has its own size restriction to limit the size of uploads. This check is implemented *before* the checks implemented by the document library. It's possible that your ISP prevents you from overriding their limitation. If not, you can specify a web.config entry like this immediately below <system.web> in your web.config file:

```
<httpRuntime maxRequestLength="xxx" />
```

where xxx is the new upload limit expressed in kilobytes. The standard default is 4096 (= 4Mb).

Use a AllowedAttachmentExtensionList setting to provide the list of file extensions allowed in your document library. Use a | character to separate each entry in the list. For example:

```
<add key="AllowedAttachmentExtensions"
value="pdf|xls|xlsx|doc|docx|ppt|pptx|txt|bmp|jpg|jpeg|png|gif"/>
```

4.9 Configure the text editor

We use a third party tool called CKEditor to edit the text of an item. You can read more about it at ckeditor.com

We provide support to configure:

- The editor toolbar
- The tags shown by the 'Format' drop down
- One or more templates for database items

4.9.1 The editor toolbar

CKEditor allows you to modify the features available via the toolbar. You can change those settings using an EditorToolBar setting below `<appSettings>` in web.config. The CKEditor documentation lists the available options. The default value is:

```
<add key="EditorToolBar" value="Bold|Italic|Underline|Strike|-
    |Subscript|Superscript|-|RemoveFormat
```

```
NumberedList|BulletedList|-|Outdent|Indent|-|Blockquote|-
    |JustifyLeft|JustifyCenter|JustifyRight
Cut|Copy|Paste|PasteText|PasteFromWord|-|Undo|Redo
/
Table|HorizontalRule|SpecialChar
Link|Unlink
Format|TextColor|BGColor
Find|Replace|-|SelectAll|-|SpellChecker
ShowBlocks|About" />
```

The documentation also explains how to create templates that you can apply via the toolbar.

4.9.2 The 'Format' dropdown

You can decide which tags are shown in the 'Format' dropdown by adding an `<EditorFormatTags>` setting below `<appSettings>` in web.config. The default value is:

`<add key="EditorFormatTags" value="p;h1;h2;h3" />`

4.9.3 Editor templates

CKEditor allows you to apply one or more templates to items. You'll need some understanding of JavaScript to set up a template. There's more information at:

http://docs.cksource.com/CKEditor_3.x/Developers_Guide/Templates

NB:

- You have to add "Templates" to your toolbar definition to see the Template drop down
- Use setting `<EditorTeplatesFiles>` in web.config to instruct CKEditor to use them. You can specify either a single file, or multiple files separated by commas.
- Use definition set name "lis" to register the set automatically. If you want to use a different set name, define it with a `<EditorTemplates>` setting in web.config, the default is:
  `<add key="EditorTemplates" value="lis" />`
- Each template definition must have an image, even if it's just a single transparent pixel

4.10 Decide how to report unexpected errors

By default, if the system encounters an unexpected error, it will display a standard diagnostic page to the person using the system. This is likely to be most useful while you are setting the system up for the first time. In general use, however, it's common for people to ignore this kind of error or, worse, complain of a problem but not provide any diagnostic data from the page. You can therefore opt to have details of unexpected errors sent to one or more email addresses.

For this option to work, your central PC will need to connect to an SMTP server. Most ISPs provide one that you can use.

To email error messages:

1. Add entries like these before the `</configuration>` line at the end of your web.config file:

```
<system.net>
  <mailSettings>
    <smtp deliveryMethod="Network" from="returnAddress">
      <network host="smtpServerAddress"
          userName="smtpUserId"
          password="smtpPassword"
          port="smtpPortNumber" />
    </smtp>
  </mailSettings>
<system.net>
```

2. Add an entry like this between `<appSettings>` and `</appSettings>`:

```
<add key="ErrorEmailAddress" value="destinationEmailAddress"
/>
```

Where:

1. *returnAddress* is the return address shown on the emails. Normally, the address doesn't have to exist, but some ISPs might require you to use the domain you registered with the ISP.
2. *smtpServerAddress* is the server's SMTP address, for example: auth.smtp.server.co.uk
3. *smtpUserId* and *smtpPassword* are the credentials for logging on to the SMTP server
4. *smtpPortNumber* the port required by your ISP, if in doubt try 25
5. *destinationEmailAddress* is the address that should receive the emails; you can specify multiple email addresses separated by commas (*not* semicolons)

You can test the above parameters by displaying the TestReferences.aspx page in a browser. Look for the 'Test error emailing' link.

Note that, if you set up any parameters incorrectly, the system will fall back to displaying the standard diagnostic page.

4.11 Test the Local Information System

You should now be able to run the system. You should see a page something like this:

Try running a search – even if the system doesn't find a match you will have tested database access.

The following sections help you decide the URLs to use for:

1. Intranet hosted on the internet
2. Intranet hosted on your network

4.11.1   Intranet hosted on the internet

You can test the system from any internet connected device. You should now be able to run the intranet application by navigating to your web site's URL. You will need to append /CABLIS to the URL if you created a CABLIS application folder.

4.11.2   Intranet hosted on your network

Start by trying to navigate to the site on the central PC. That will ensure there are no network issues to get in the way. Use:

http://localhost/CABLIS/

If that works OK, test the site is available from the rest of your network. You found the internet address of the central PC in step 4 above. Go to any PC on the network, start a browser and navigate to:

http://*internetAddress*/CABLIS/

where *internetAddress* is the internet address of the central PC. You should see the same page.

You can now start using the intranet version of the Local Information System.

4.12 If you encounter a problem

The error message you see might be sufficient for you to determine and fix the problem. If not we provide two web pages to allow you to investigate further…

TestFileReferences.aspx

This page tests out all the file references made by the system and provides more diagnostics. If the page doesn't help, send us screen shots of the error you get running CABLIS and the TestFileReferences.aspx page (as shown in a web browser), and we'll try to help.

ShowConfigurationValues.aspx

This page shows you all the configuration values being used by the application. It might help you work out why the system is not running the way you expect. Note that changes to configuration values do not have immediate effect. The system stores configuration values internally for performance reasons and updates them every four hours, or so. The ShowConfigurationValues page displays a 'Reload the cached values' parameter at the bottom of the page so you can force the system to read the latest configuration values.

5 Using the intranet tools

We provide a set of desktop tools with the intranet version:

- Database synchronisation
- Database backup
- Database link checking

Note that as well as making database backups, you can use the backup utility to update a laptop intended to run the Local Information System stand-alone without a connection to a network.

The following sections describe each in turn, and how to install them in a PC.

5.1 Database synchronisation

The synchronisation tool reads a Local Information System database and uses it to bring a database held at an intranet site up to date.
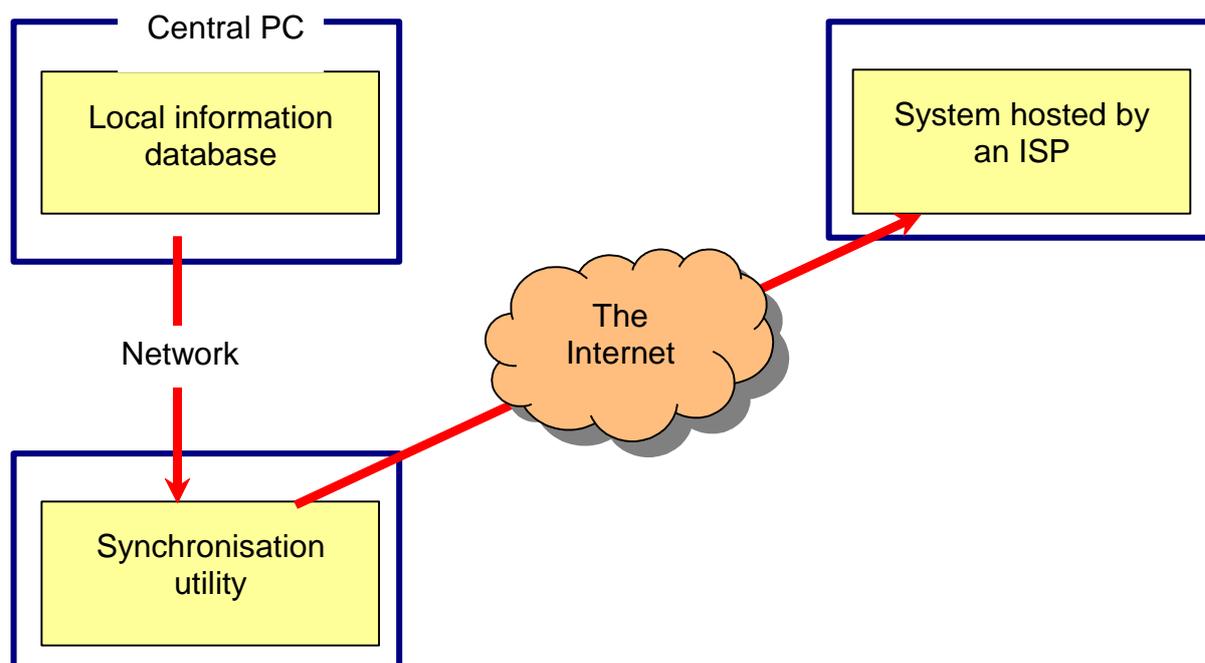
You maintain the database by adding, deleting and changing entries in a local copy of the database. Having made some changes, you can run the synchronisation utility to copy them to the database held by the ISP. People using the Local Information System on the internet will then see your changes.

In the diagram above we show the intranet site hosted on the internet. You can also synchronise with the intranet hosted inside your office network. That makes sense if you want to maintain the database at a different office to the one hosting the intranet site.

A synchronisable intranet database is slightly different to the normal version. You can't use an updateable database if you intend to synchronise with it. Instead we provide 'synchronisable' versions of both Access and SQL Server databases in the distribution media.

The synchronisation utility is called SynchLIData.exe. When you run it, you see this form:

If you've used it before, you'll see the URL and Database fields filled in for you. The URL is the URL of the web service processor page: LISService.asmx. For example: http://www.yourbureaulis.org.uk/LISService.asmx. The Database field should be the address of the local copy of the Local Information System database – you can use the '?' button to browse to it.

The user id and password must be a valid maintenance id and password held in the *remote* version of the database. If you're starting with one of the empty databases we provide, use id 'TEST' and password 'TEST'.

The 'Force updates' option is provided in case the dates in the database get misaligned for any reason. It forces all entries in the remote database to be updated.

If the utility detects there are no changes you see a message telling you. Otherwise you will see a form like this:
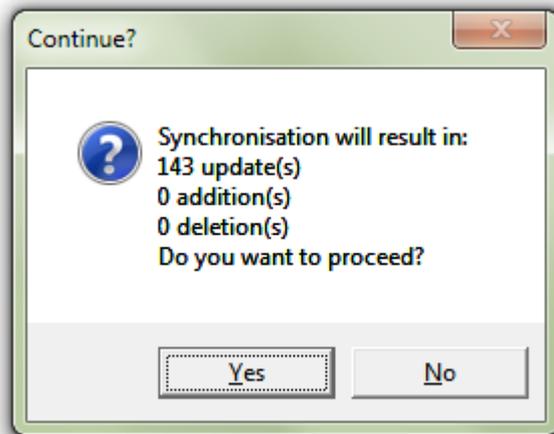
Click 'Yes' to synchronise your changes. You will then see this message:
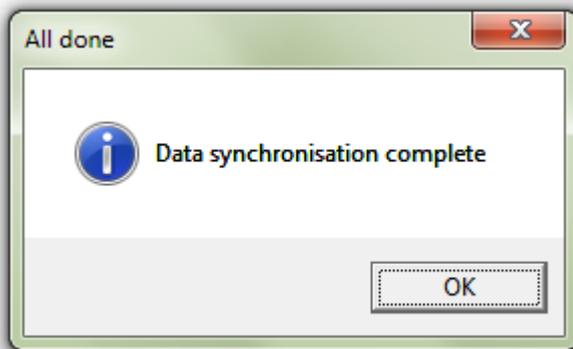
If there are user groups defined in either the local or remote system, you will see this message:
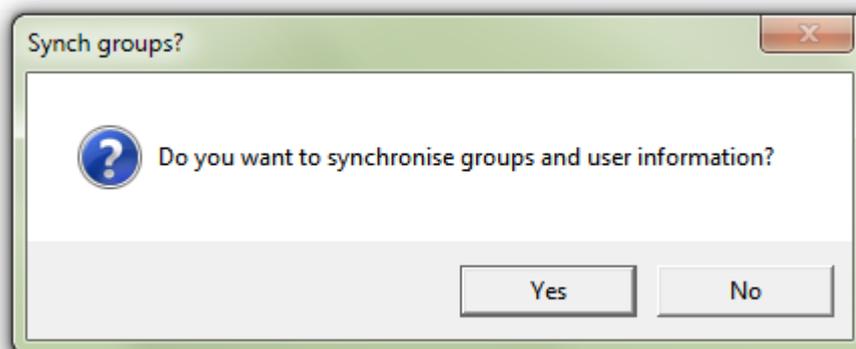
The synchronisation program assumes you are restoring a system backup because groups cannot be maintained in the desktop system. If you don't want to synchronise groups reply 'No'. You will see a follow-up warning if there are groups defined in the remote system but not the local one (because synchronisation will delete group information from the remote system).

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If you decide not to synchronise group information, you will see this message:

Having synchronised group information or user information, you will see one of these messages:
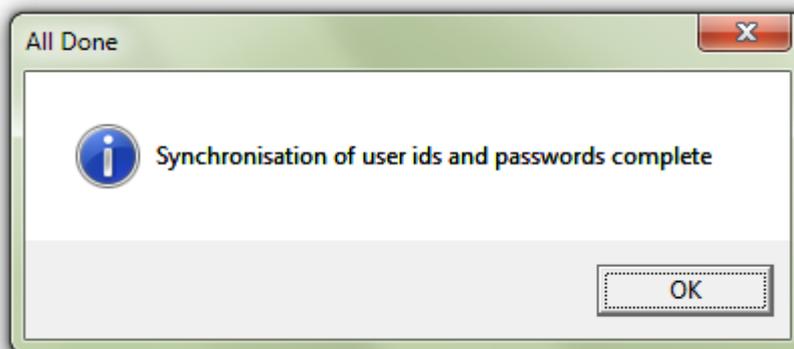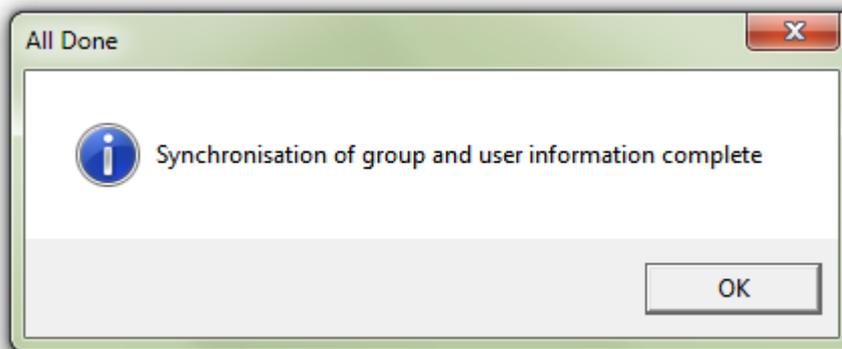
5.2 Database backup

The backup tool makes Access database copies of a database held by the intranet.
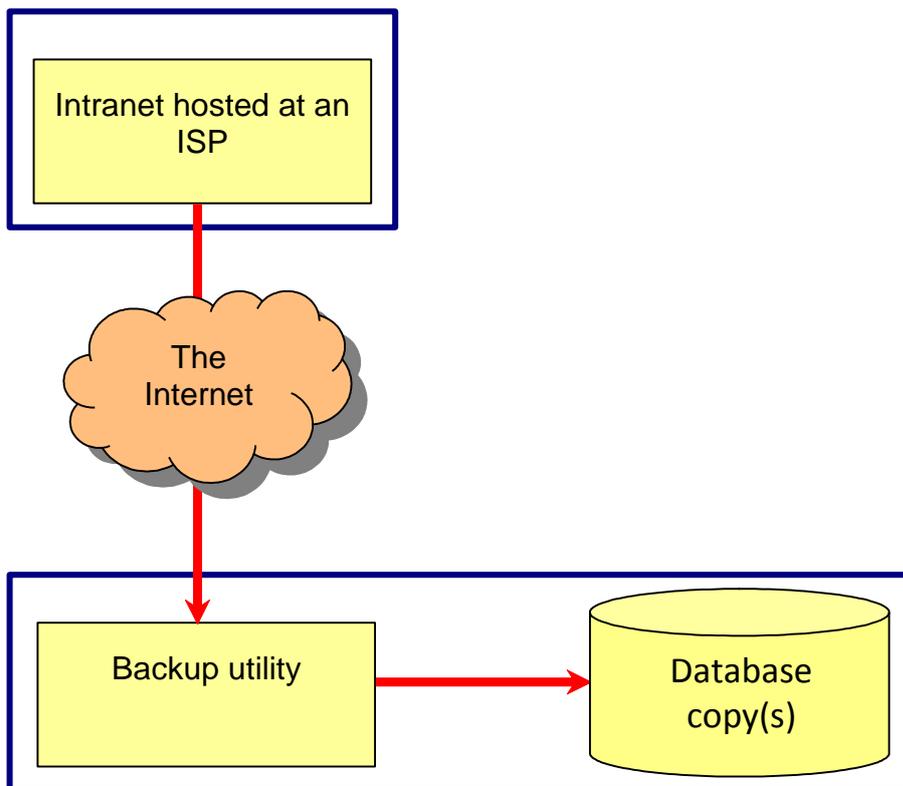
The diagram shows the tool working with a database hosted on the internet, but it works just as well with databases hosted in your network. The database copies can be made on the same PC that runs the tool or any other PC on your network.

The tool is a console application – it doesn't require you to enter any data. That means you can use Windows task scheduler to schedule a backup to run daily overnight, for example. The technology we use means the database being backed up can be in use at the time the backup is run.

NB, the technology we use in the backup tool and in the synchronisation tool used to restore data is incompatible with the document library. The document library is not backed up by the backup tool. Instead we suggest you keep a copy of every document you upload to the library. If you need to restore the library, you can simply re-upload the documents.

The backup tool is called BackupLIData.exe. It runs in one of two modes:

1. Auto – automatically keeps a specified number of backups automatically; backups are named with the date and time each backup was performed.
2. Overwrite – overwrites the same file every time the backup is run.

The overwrite mode is intended for situations when you what to copy a database to a laptop that is to be used without a network connection – at an outreach location, for example. The backup

database is not updateable. It can, however, be used by either the intranet or the desktop version to enquire on the local information database.

To run the tool, create a batch file (a text file with the extension .bat) containing a single line like this:

```
path\BackupLIData.exe mode ~ address ~ id ~ password ~ folder ~
    backup count
```

Where:

- *path* is the path to the tool on your PC
- *mode* is either "auto" or "overwrite"
- *address* is the address of the web service processor page: LISService.asmx; for example: http://www.yourbureaulis.org.uk/LISService.asmx
- *id* is a valid intranet user id
- *password* is the password for the id
- *folder* is the path to the backup folder containing the backup template and backup files
- *backup count* is needed only for auto mode and determines how many backup copies are kept in the backup folder

The backup folder contains the following:

- A template database called 'LocalInformation.mdb.template' used to create empty databases that are populated by the backup utility
- Diagnostic information produced by the most recent backup in a file called 'Progress.txt'
- Either the latest backup called 'LocalInformation.mdb' if you use 'Overwrite' mode or a set of backups called:

  LocalInformationyyMMddhhmmss.mdb

  where ddMMyy is the date the backup was made and hhmmss is the time. We chose that file naming convention so that you can easily sequence the folder to show the latest backup first.

We provide the template file in folder /Intranet/BackupFolder of the installation media. You don't need to create any of the other files, they are created automatically.

We don't provide a restore tool because you can use the synchronisation tool to restore your database. We suggest the following procedure which assumes the intranet database is updateable[7]:

---

[7] If you update the database using the desktop tools and synchronise it with the intranet, your backup strategy should be based around the desktop database, not the intranet one.

1. Make a backup of the intranet database before you start – even if you know it's in a dodgy state. The data it holds might still be useful if there's a problem with the restore process. For internet-hosted databases, your ISP will provide the means to make backups.
2. Use page DatabaseUpdater.aspx to delete all the data in the intranet database.
3. Make the intranet database synchronisable (see page 59).
4. Run the synchronisation tool, specifying the most recent database copy as the source database and the intranet as the target. This will automatically restore the database and rebuild the indexes.
5. Make the intranet database updateable (see page 59).

5.3 Database link checking

The link checking tool helps you check to see if the web links in your database are still working. It works in a very similar way to the web link checking tool in the desktop version.
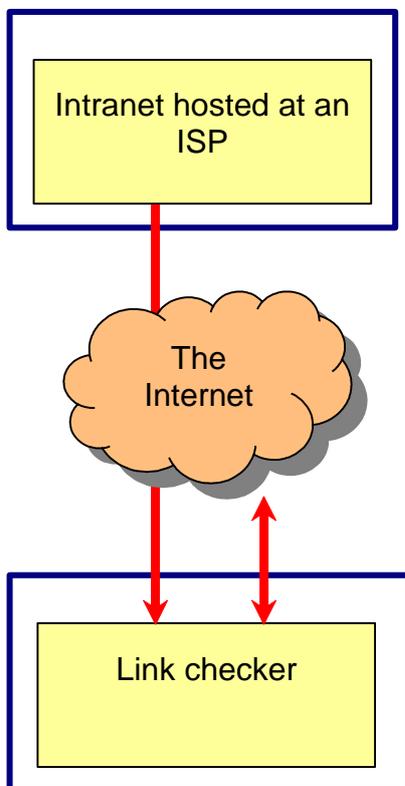
The diagram shows the tool working with a database hosted on the internet. It works just as well with databases hosted in your network, but you might find that the desktop link checker works faster in this situation.

The synchronisation utility is called CheckLIWebLinks.exe. When you run it, you see this form:
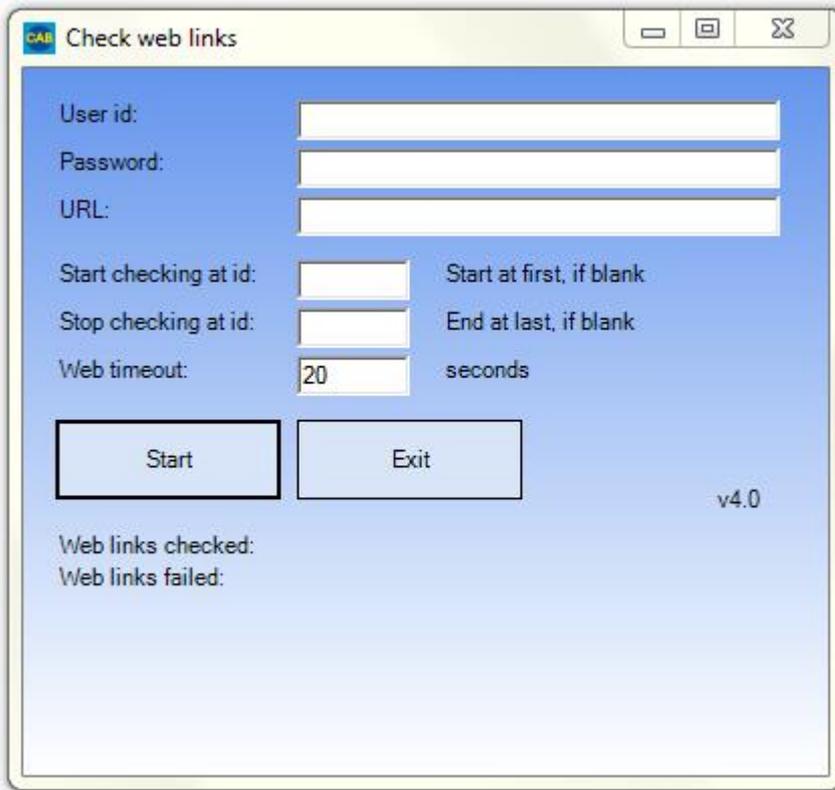
If you've used it before, you'll see the URL and timeout fields filled in for you. The URL is the URL of the web service processor page: LISService.asmx. For example: http://www.yourbureaulis.org.uk/LISService.asmx.

The user id and password must be a valid maintenance id and password held in the *remote* version of the database.

You can specify the first and last database ids to check. That way you can check different sections of the database on different days.

The web timeout is the time in seconds the tool will wait to see if a web site is going to respond. Set too short you will get too many false error reports. Set too long, the tool will take a long time to run if it encounters a lot of problem links. We suggest you start with the default: 20 seconds.

Click 'Start' to begin link checking. You will see progress messages while links are being checked. At the end you will see either a message saying no problems were found or a list of problems with diagnostic information.

Note that the tool prevents the PC it from automatically sleeping or hibernating during link checking. You can therefore start link checking and go home. If set, the PC will sleep or hibernate automatically when it's done. When you wake the PC up the next day, you will see the results.

5.4 Installing the database tools

If you have installed the desktop system on your PC, there's nothing to do. The tools are already installed. You'll find them in the Local Information System folder – c:\Program Files\CITA\CABLocalInformation by default.

Otherwise, you will have to:

1. Install version 1.1 of the .NET framework – an appendix to the desktop installation guide (contained in the systemDocumentation folder of the installation media) explains how to do that.
2. Install the Microsoft Access Database Engine – again, see the appendices to the desktop installation guide.
3. Copy the tool(s) you need from the systemObjects folder to your PC (Microsoft security rules prevent you from running them from a server) together with file vbpowerpack.dll

6 Security

This section describes various aspects of security:

1. User ids and passwords
2. Logging out
3. User groups
4. Internet issues
5. Documents stored in folders
6. Documents stored in the document library
7. Folder permissions
8. Working with tablets

6.1 User ids and passwords

The Local Information System allows you to specify two types of user id:

1. **Web users** are allowed to search the database and view results
2. **Maintenance users** have the same access as web users but they can also update the data in the Local Information System. Maintenance users can also run the database tools

To start with, your database contains just one maintenance user (id: TEST, password: TEST). If you synchronise with a local database, the TEST id is replaced with the ids and passwords in your local system.

You can add, delete and change ids and passwords in one of two ways:

1. If you update your database via the web, maintenance users have access to page MaintainUsers.aspx (see the online help pages for more detail)
2. If you make changes by synchronising with a local database, use the CABLIAccess.exe utility to update your local database and synchronise those changes to the intranet – see the Technical Overview provided in folder systemDocumentation of the installation media

If you do not create any web users, the Local Information System assumes you do not want to control access to searches; people will be able to access the data without an id or password. If you create one or more web users, the system will require *everyone* accessing the system to enter a valid id and password. You can override this behaviour by adding one of two settings in the <appSettings> section of web.config. This setting forces everyone to enter an id and password even if you do not have any web users:

```
<add key="ForceSecure" value="yes" />
```

This setting allows access to the system without an id and password even if you have defined web users:

```
<add key="AllowAnonymous" value="yes" />
```

Having logged on, people can change their passwords any time using the 'Change password' button towards the bottom of the main search page. You can control how passwords are validated via system configuration. See page 38 for more detail. To prevent any web user from changing their password, add this setting to web.config:

```
<add key="SuppressChangePassword" value="yes"/>
```

Alternatively, you can specify whether individual groups of users can change their own passwords, see the 'User groups' section on page 54.

To help people log on to the system and find out who to contact in the event of problems – like forgetting their password – you can provide your own text at the top of the logon page. See page 39 for more detail.

6.2 Logging out

In developing the system we have created a compromise between usability and security. We have implemented a regime that means people using the database stay logged on to the system while they are using the main search page. The alternative would mean people having to log back on if they left the system idle for more than 20 minutes or so – which would be onerous.

The compromise is that someone could – in some situations – use the browser 'back' button to gain access to the system even if you click the 'Log out' button. The only sure way to prevent this is to close your browser down having logged out. You will see a message explaining this when you click the 'Log out' button.

6.3 User groups

Version 5 of the intranet version of the Local Internet System introduced user groups. User groups allow you to control how the system behaves for different groups of users. For each group, you can:

- Hide database entries
- Hide sections of database entries
- Prevent/allow access to features of the system
- Change how the system appears

The following sections explain how to:

- Create user groups
- Assign web users to groups
- Assign anonymous users to groups
- Hide items and sections of items from groups
- Configure the system using groups

Note that user groups have no effect on maintenance users or users of the desktop version.

6.3.1 Create user groups

We provide page MaintainGroups.aspx to add, change and delete user groups. For each group, maintenance users specify whether people can:

- see the additional search buttons
- see any soft keys you have defined
- see the 'Log in' button
- see the 'Change password' button

See the system help for more information.

6.3.2 Assign web users to groups

The MaintainUsers.aspx page allows maintenance users to add, change and delete web users. The same page can also assign web users to groups. See the system help for more information.

6.3.3 Assign anonymous users to groups

If a web user logs in with an id and password, their group is obtained from their id.

Maintenance users do not have a group; they always have access to everything.

Anonymous users are people that don't log in. In order to control their access they need to be assigned a group. The DefaultGroupList setting in web.config allows you to do that.

To set a default group for an anonymous user provide pairs of strings separated by | characters. The first string is used to match with the request URL. If the text matches part of the request URL (case is ignored), the second string is used as the default group id. The first match is used.

Specify a blank first string to force a default group regardless of URL.

Specify a blank second string to specify matching requests should not have a group.

For example, this setting will put all anonymous users in a group called Anonymous:

```
<add key="DefaultGroupList" value="|Anonymous"/>
```

Suppose you have system hosted in the internet that serves two different areas and you want anonymous users in each area to not see items that are specific to the other area. You need to assign users to a group based on their area. To do that, you could use your control panel to define subdomains like this:

- towna.areacablis.org.uk
- townb.areacablis.org.uk

towna and townb are subdomains and you will normally be able to create them without charge. You would point both subdomains to the CABLIS folder on your web site so they run the same code against the same database. The following setting…

```
<add key="DefaultGroupList" value="towna.|TownA||TownB"/>
```

… would assign all users using the 'towna' address to group TownA and all other anonymous users to group TownB.

6.3.4 Hide items and sections of items from groups

When you add or change an entry in the database, you will see a 'Hide from…' section that allows you to select the groups that shouldn't see the item. All searches and attempts to access the item directly made by the groups you select will behave as if the entry does not exist.

You can also embed [HideFrom] tags in the text of an item to hide parts of the text from specified groups. For example:

```
[HideFrom TownA Anonymous]This text will not appear to groups
    TownA and Anonymous[/HideFrom]
```

See the system help for more information.

6.3.5 Configure the system using groups

You can configure how the system appears to different groups using three web.config settings: AlternateHelpPageList, AlternateSearchPageHelpList, AlternateSplashPageTextList. In each case, data items are provided in pairs with each item being separated by a | character. The first item of the pair is a group id, the second item of the pair provides the data relevant to that group. If you specify an item for a blank group it is used for all groups (including anonymous users and users without groups) that have not been specified previously. The system ignores any following pairs once it has made a match.

The AlternateHelpPageList setting provides the address of a web page that you have created to provide help tailored for the specified group(s). It is shown whenever someone from the specified group(s) click the help button on the main search page. For example…

```
<add key="AlternateHelpPageList"
    value="Anonymous|/simplehelp.html"/>
```

… could show a simplified version of the supplied help text for anonymous users.

The AlternateSearchPageHelpList setting provides text to be shown immediately below the search buttons on the main search page. The text should be valid HTML starting with a <p> tag and ending with a </p> tag. You cannot use < or > in settings, so use [and] instead. Use [[to specify a [character and]] for a] character.

For example:

```
<add key="AlternateSearchPageHelpList" value="Anonymous|[p]Some
    simplified help text for anonymous users[/p]" />
```

The AlternateSplashTextList setting provides text to be shown when people first load the main search page. By default, the system shows the Constructive IT Advice logo followed by text including your organisation's name and an attribution to CITA. Provide valid HTML here to replace the logo and bureau-specific text. For example:

```
<add key="AlternateSplashTextList" value = "Anonymous|[p]This is
    the text to show to anonymous users[/p]" />
```

6.4 Internet issues

Placing your Local Information System on the internet raises concerns because it is then open to attack from anyone with access to the internet.

You have some assurance because:

- Microsoft builds security into its server software
- As developers, we have been trained in and understand internet security exposures

No system is 100% secure, but you can be confident your system will resist all likely attackers. In particular, we have specifically addressed the two most common vulnerabilities known as cross-site scripting and SQL injection.

There are two steps you should take, however, to help protect your system on the internet once you have installed it successfully:

1. Remove file TestFileReferences.aspx from your application folder (you can reinstate it later if necessary). This removes a diagnostic page that can reveal information useful to people trying to attack your system.
2. Prevent the system from displaying standard error messages by using email to report unexpected errors – more detail on page 40. This forces the system to replace the standard error messages (which contain information that could help an attack) with the message: "Details of the error have been emailed to your Local Information System administrator(s)."

6.5 Documents stored in folders

The system allows you to store documents on the server and reference them via links attached to entries in the database.

You should be aware that documents uploaded this way are not protected. Anyone who knows the address of a document stored on the intranet server can access that document without having a user id and password.

We anticipate this won't be a problem for most documents. Note that you can use encryption to protect sensitive documents. Microsoft Office supports encryption as standard. The encryption provided by versions earlier than Office 2007 is not secure, however.

A better storage method is the document library…

6.6 Documents stored in the document library

Documents uploaded to the document library are stored in the Local Information System database, not in a folder on the server. That means we can control access to the documents since the only way to access the documents directly is via the Local Information System.

For the time being we provide two-level access control. Documents are either available to anyone including anonymous users, or they require a the requester to log in with a valid user id and password.

6.7 Folder permissions

The most common problem people have encountered when installing the intranet version on their network is that files and folders are inaccessible because of permissions problems.

Internet Information Server creates and uses local users rather than domain users. That means IIS might not have access to files and folders that seem to be widely available to people on your network. The simplest way to overcome permissions issues is to grant access to the "Everyone" group which includes local users. The "All Domain Users" group doesn't include local users. If you want to fine-tune access, the id used by IIS is the one identified in the application's application pool - see the appendices for more detail.

Permissions problems can also arise when you use a server reference to start a path name when referring to files used by the intranet. Again, because IIS uses local users, it might not have access to server files when 'normal' users – registered to your domain – do. This can be particularly puzzling if the server you are referring to is the one on which the intranet is running – because the request is routed via your network it is treated as a request from outside the server. We therefore recommend you avoid server references where possible, using local references or mapped network drives instead.

6.8 Working with tablets

From the Local Information System point of view, the only difference between a tablet PC and an ordinary one is that tablet PC's have to be connected to a local network via WiFi. You will want to ensure that the WiFi network cannot be used by unauthorised people. The best way to do that is to implement access controls via your WiFi router. We suggest you:

1. Restrict access to the router to specific MAC addresses (these uniquely identify each piece of equipment that connects to a network)
2. Change the default admin password for the router to a complex password (Googling for GUID generator will find several sites that can generate a complex password)
3. If your tablet can connect without it, prevent your router from broadcasting a security identifier (SID)
4. Implement the strongest network encryption your router supports - avoid 'Wired Equivalence Privacy'(WEP) which is easily cracked

7 Switching between synchronisable and updateable databases

There are two major versions of the Local Information System database:

- **Updateable** databases can be updated directly using the desktop maintenance program or the intranet Edit Item page. You cannot make an updateable database the target of a synchronisation.
- **Synchronisable** databases cannot be updated directly. Instead changes can be made only through synchronisation.

The database installed by the desktop installer is updateable.

The database installed by the intranet installation procedure is synchronisable.

There are two main reasons why you might want to switch a database between synchronisable and updateable:

1. You are setting up a new intranet system that you want to be updateable
2. You want to restore an updateable database from a backup

The following sections explain how to:

1. Switch SQL Server databases
2. Switch an Access database from synchronisable to updateable
3. Switch an Access database from updateable to synchronisable

Switch SQL Server databases

Maintenance users can open the database updater page: DatabaseUpdater.aspx.

The database updater allows you to switch between the two types of database online.

For example, to restore a SQL Server database from a backup:

1. Make a backup copy of the old database using the ISPs backup features (just in case)
2. Use the database updater to:
   a. Make the database synchronisable
   b. Remove all data from the database
3. Synchronise data from your backup copy to the intranet
4. Use the database updater to make the database updateable again

Switch an Access database from synchronisable to updateable

Simply take the Access database you have been synchronising from and use it to overwrite the Access database on the intranet.

Switch an Access database from updateable to synchronisable

The simplest way to do that is to:

1. Replace the intranet database with a blank, synchronisable database (we provide one in folder \intranet\synchronisable databases of the installation media)
2. Synchronise your current database with the empty copy to bring it up to date

The document library

The document library cannot be stored reliably in an Access database. Instead it requires SQL Server. That means the document library cannot be synchronised or backed-up using the Local Information System tools. As a result, the document library is always updateable regarless of the state of the rest of the database.

8 Get statistics from the intranet

Whenever someone conducts a search on the local information database, the system logs the search and the result.

Log data is held by the intranet in the logDirectory folder you created during installation. You can retrieve records from a system hosted on the internet using an FTP program. You can get log data from a locally-installed intranet by copying the files from the logDirectory folder. You should not open the current log file directly – that will cause searches to fail.

The system creates one log file per month. Each file is called yyyy-mm.csv where yyyy is the year and mm is the month. For example: the log information for July 2013 is contained in file 2013-07.csv.

You can double-click a log file to open it in Excel. You will need to drag the width of the first column to see the data if it appears to contain just # characters. You will see the following columns:

- Date and time of the log entry
- Entry type; one of:
    - S – startup – these entries log when people started a session on the internet
    - I – logs use of the 'Search' button
    - A – logs use of the 'A-Z' button
    - F – logs use of the 'Full text' button
    - C – logs use of the 'Change' button
    - R – logs use of the 'Review' button
    - T – logs use of the 'Recent' button
    - LI – logs use of the 'LI ref' button
    - SI – logs use of a soft button to run an index search
    - SW – logs use of a soft button to display a web page
    - SD – logs use of a soft button to display a document
- One of:
    - Nothing for entry type S
    - For entry types SW and SD the web page or document that was displayed
    - For other entry types the text used to search or lookup the database
- For entry types other than S, SW and SD the number of results returned by the search/lookup. A zero in this column indicates no matches were found in the database.
- "Intranet" – use this column to differentiate intranet use from desktop use if you use a shared log file.
- The id of the user, or "Anonymous" if they had not logged on to the system.
- The user's group, or blank if they did not belong to a group.

9 Populating your database

If you already use the desktop version of the Local Information System, you can either:

- Share the desktop database with the intranet (see page 33); or
- Use the synchronisation tool (see page 44) to copy your existing database to the intranet

If, however, you are building the database from scratch, we suggest you consult the implementation notes provided in the systemDocumentation folder of the installation media. They provide guidance for setting up your new database. They also describe:

- Approaches to data capture
- The Excel-based bulk data entry utility we provide

The notes assume you are using an Access database for data capture – as does our bulk data entry utility. Unless you have SQL experience, we suggest sticking with Access to create your initial database. Access has a strong affinity with Excel and is easier to use than SQL Server. We suggest you install the desktop version of the system on a single PC during initial data capture (the desktop installation guide has a worksheet for that). You can use the synchronisation tool to update the intranet as you capture more data.

Once you have completed initial data capture, you can switch your database to updateable (see page 59) and start adding new entries directly.

10 Upgrading from a previous version

This section explains how to upgrade your intranet system to a new version. If you also run the desktop version of the system, the desktop installation guide explains how to upgrade it.

You should use the following procedure to upgrade your intranet:

1. Review your configuration
2. Backup your current system
3. Update your application folder
4. Run the database updater
5. Update your database tools

10.1 Review your configuration

New releases might come with new configuration options. You should read through the 'Configuring the intranet application' and 'Security' sections of the updated version of this guide to see what's new. Make a note of the changes you want to make.

10.2 Backup your current system

Before you make any changes we strongly recommend you backup your current system so you can fall back to it if necessary.

You will need to backup:

- Your application folder and all subfolders.   If your system is hosted on the internet, you should use an FTP program to download all the folders to a local copy. You can use this local copy to make your update (see on) but you should make an additional copy first so you don't overwrite your backup during the update procedure.
- Your database. We suggest you use both:
    o Our database backup tool (see page 48) – or equivalent
    o If you use Access, a file copy of the Access database; or, if you use SQL Server, the backup tool provided by your ISP

10.3 Update your application folder

The new version comes with an updated set of files and subfolders for your application folder. These are in folder \intranet\CABLIS in the installation media.

The file web.config provided in the CABLIS folder is intended for new installations only –delete it from the folder so you don't accidentally overwrite your version of web.config.

If you run the intranet in your network:

- Copy the new files and folders to your application folder (but not web.config) overwriting any existing files and folders.
- Make any changes you identified above to your web.config.

If you host your intranet on the internet:

- Overwrite your local copy of the application folder with the new files and folders (but not web.config) overwriting any existing files and folders.
- Make any changes you identified above to your web.config.
- Use an FTP program to upload your changes to your web site. To save time, you don't need to upload all the files and folders. Instead, just upload the files from:
  - The application folder itself
  - The bin subfolder and any subfolders
  - The images subfolder and all its subfolders
  - The scripts subfolder and all its subfolders
  - The styles subfolder and any subfolders
  - The CKEditor subfolder and all its subfolders

Note that making changes to web.config and the bin folder will force Internet Information Server to reset all sessions. This will disrupt people that might be using the system at the time. Also, if there are database changes, people might see error pages until you update the database. You should consider doing the update out of hours, if possible.

10.4 Run the database updater

Navigate to page DatabaseUpdater.aspx

If the new release requires a database change, you will see a message to that effect which gives you the option to perform the update.

Following the update, you will see a page that includes an option to 'Rebuild search data'. You should use this after every database update to ensure you are making the best use of your new version. You might see a message saying '0 entries updated' – that's OK; it just means there was nothing to do.

10.5 Update your database tools

If you use any of the tools described on page 44, you need to ensure you update to the latest versions.

If you have the desktop version of the system running on your PC and you run the tools from the desktop programs folder, simply use the desktop upgrade procedure (there's a worksheet for that in the desktop installation guide).

Otherwise, copy the programs you need from folder \systemObjects of the installation media to your local copy. See page 52 for more detail.

To update the backup tool you will also need to overwrite file LocalInformation.mdb.template in your backup folder with the one provided in folder Intranet\BackupFolder of the installation media.

11 Taking the intranet version offline

You might need to take the intranet version offline to perform maintenance on the database. For example, the maintenance program's 'Repair and Compact' option requires exclusive access to the database. You won't be able to use it if people are accessing the database through the intranet. Similarly, if someone tries to use the intranet version while 'Repair and Compact' is running they will see a system error message.

To take the system offline, locate the 'app_offlinex.htm' file in the application folder (if you are unsure where that is, you can find out by going to page 'ShowConfigurationValues.aspx'). Rename the file to 'app_offline.htm'. This takes the system offline. Any attempt to use the intranet version shows the offline page. By default, it looks like this:

The Local Information System is unavailable

The system is currently down for essential maintenance.

Sorry for the inconvenience, it will return shortly.

You can edit the 'app_offline.htm' file to change the message. For example, you might want to let people know who to contact to find out more.

To bring the system back online, simply rename 'app_offline.htm' back to 'app_offlinex.htm'.

12 Appendices

12.1 Using Internet Information Services 7 or 8 (IIS 7 or 8)

IIS 7 is the web server provided with Windows Vista and Windows 7. IIS 8 is provided with Windows 8. The two versions are virtually identical. In this section we describe how to use IIS 7 to achieve various tasks. Those instructions also work for IIS 8. The next section describes how to use IIS 5.1 and IIS 6.

To run the IIS manager: use the 'Administrative Tools' option of the control panel. Double click 'Internet Services Manager' option to see something like:
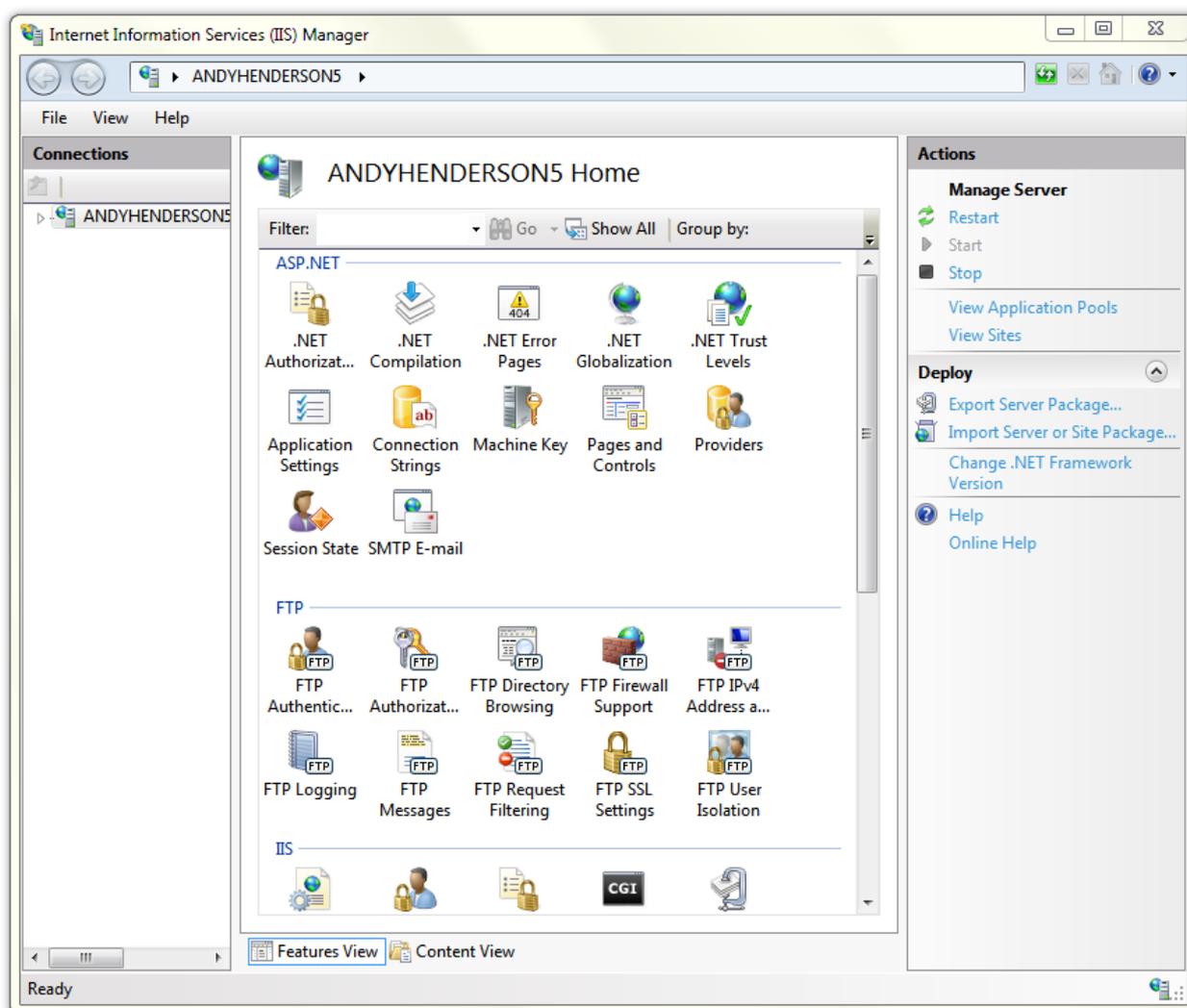
12.1.1   Find out the IIS application folder

Under 'Connections' on the left hand side of the IIS Manager, click the triangle next to the top entry to see 'Sites'. Click the triangle next to 'Sites' to see 'Default Web Site'. Click 'Default Web Site' to select it. In the right-hand pane, click 'Advanced Settings…'. The main application folder is shown next to 'Physical Path'.

12.1.2 Create a virtual folder for your application

Under 'Connections' on the left hand side of the IIS Manager, click the triangle next to the top entry to see 'Sites'. Click the triangle next to 'Sites' to see 'Default Web Site'. Right click 'Default Web Site' and click 'Add Virtual Directory…':
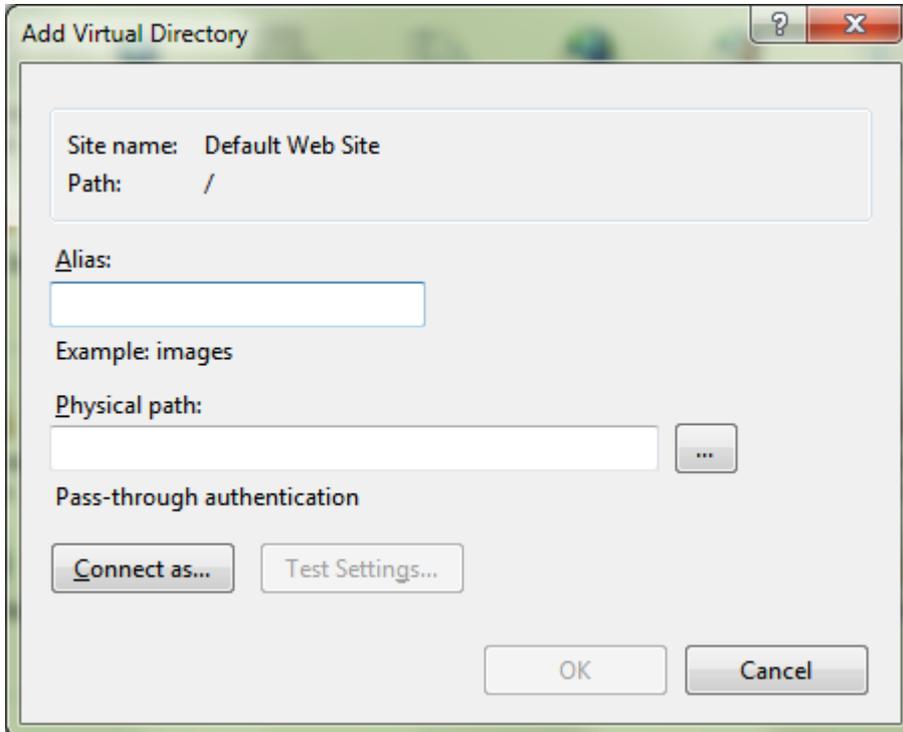

Enter "CABLIS" in 'Alias'. Enter the path to your CABLIS folder in 'Physical path'. The '…' button allows you to browse to it. Click 'OK' to create the virtual folder.

You will now see 'CABLIS' under the 'Default Web Site' in the left hand pane of the IIS Manager.

12.1.3   Create an application pool for your application

Under 'Connections' on the left hand side of the IIS Manager, click the triangle next to the top entry to see 'Application Pools'. Right click 'Application Pools' and click 'Add Application Pool…':
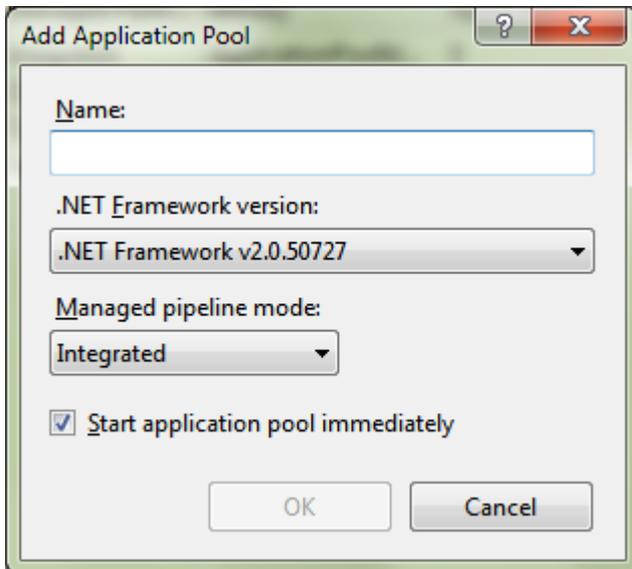

Enter "CABLIS" in 'Name'.

Select '.NET Framework v2.0.50727' under '.NET Framework version'.

Select 'Classic' under 'Managed pipeline mode'.

Click 'OK' to create the application pool.

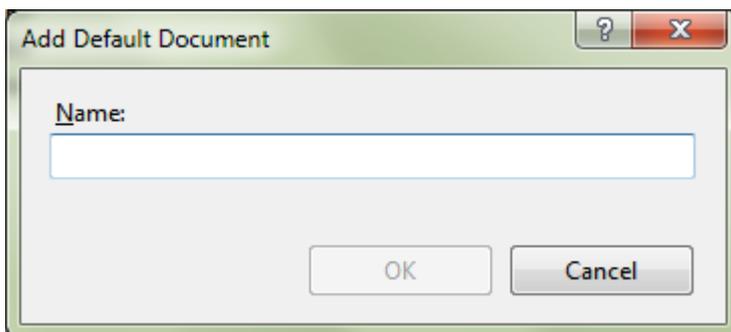### 12.1.4 Tell IIS your CABLIS folder is an application

Navigate to your CABLIS folder under the 'Sites' folder in the left hand pane of the IIS Manager. Right click the CABLIS folder and click 'Convert to Application':
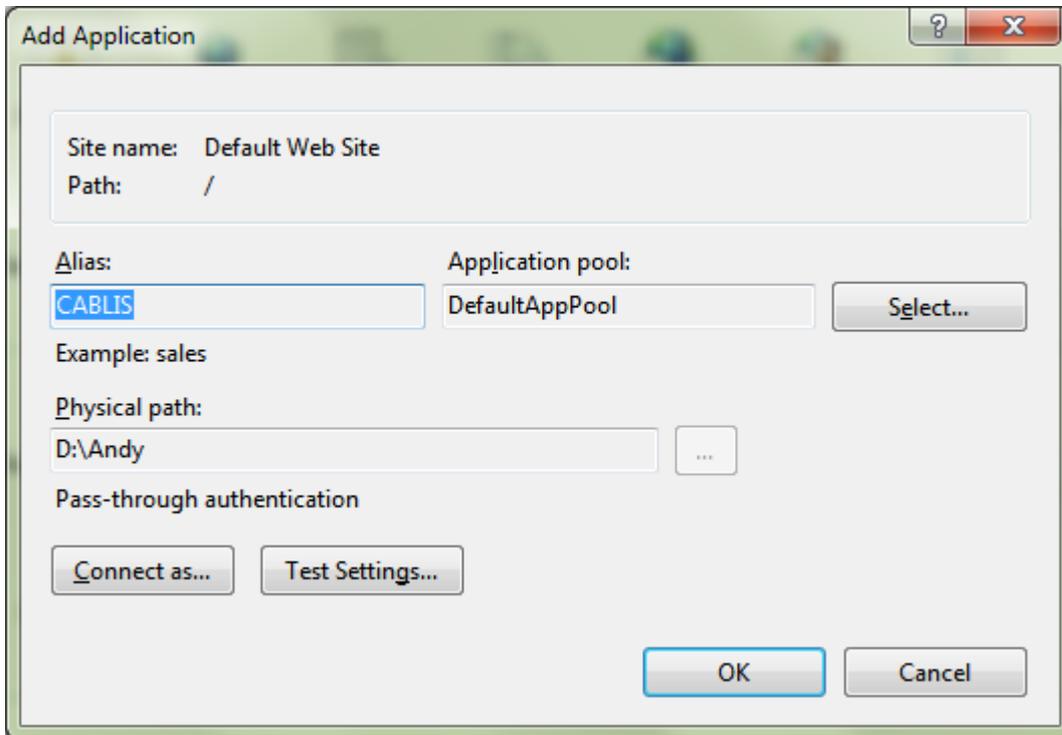
Click 'Select…', select 'CABLIS' and click 'OK'. Click 'OK' to convert the folder.

### 12.1.5 Tell IIS that LIS.aspx is the default page

Navigate to your CABLIS folder under the 'Sites' folder in the left hand pane of the IIS Manager. Click the 'CABLIS' folder to select it. Double click the 'Default Document' icon in the IIS section in the middle pane. Click 'Add…' in the right hand pane:

Enter "LIS.aspx" and click 'OK'. You will now see "LIS.aspx" at the top of the list of default pages.

12.1.6   Create a virtual folder for a document folder

Navigate to your CABLIS folder under the 'Sites' folder in the left hand pane of the IIS Manager. Right click 'CABLIS' and click 'Add Virtual Directory…':
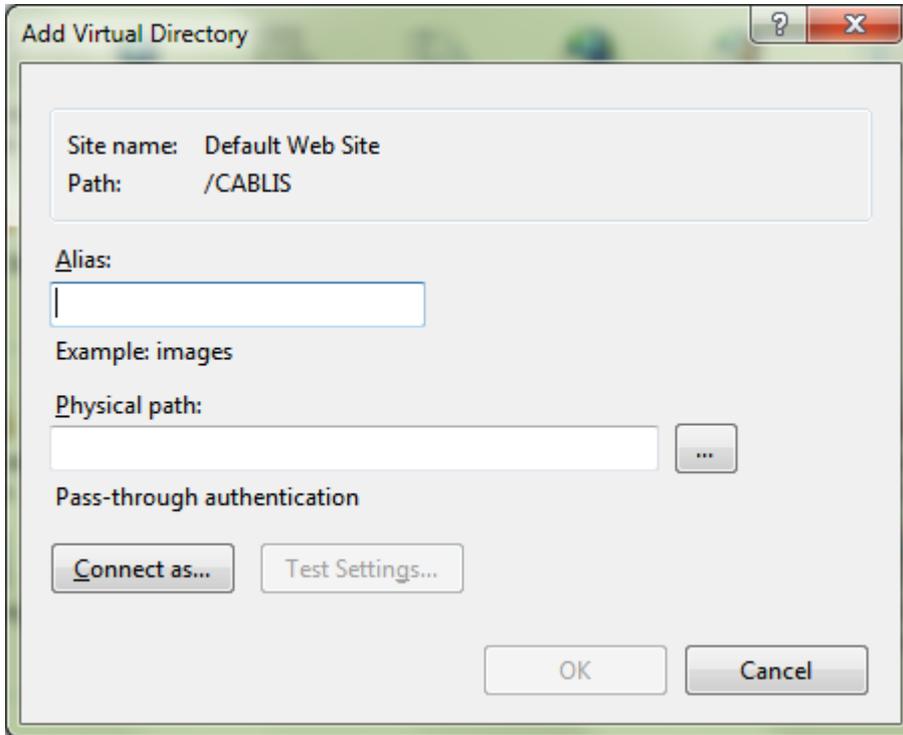

Enter your selected name for the folder in 'Alias'. Enter the path to the corresponding document folder in 'Physical path'. The '…' button allows you to browse to it. Click 'OK' to create the virtual folder.

You will now see your selected name under the 'CABLIS' site in the left hand pane of the IIS Manager.

12.2 Using Internet Information Services 5.1 or 6 (IIS 5.1 or 6)

IIS 5.1 is the web server provided with the 32-bit version of Windows XP Professional. IIS 6 was provided with the 64-bit version and also Windows Server 2003. In this section we describe how to use IIS 5.1 to achieve various tasks. IIS 6 is virtually identical.

Each task starts with the IIS manager. To run the IIS manager: use the 'Administrative Tools' option of the control panel. Double click 'Internet Information Services' option to see something like:
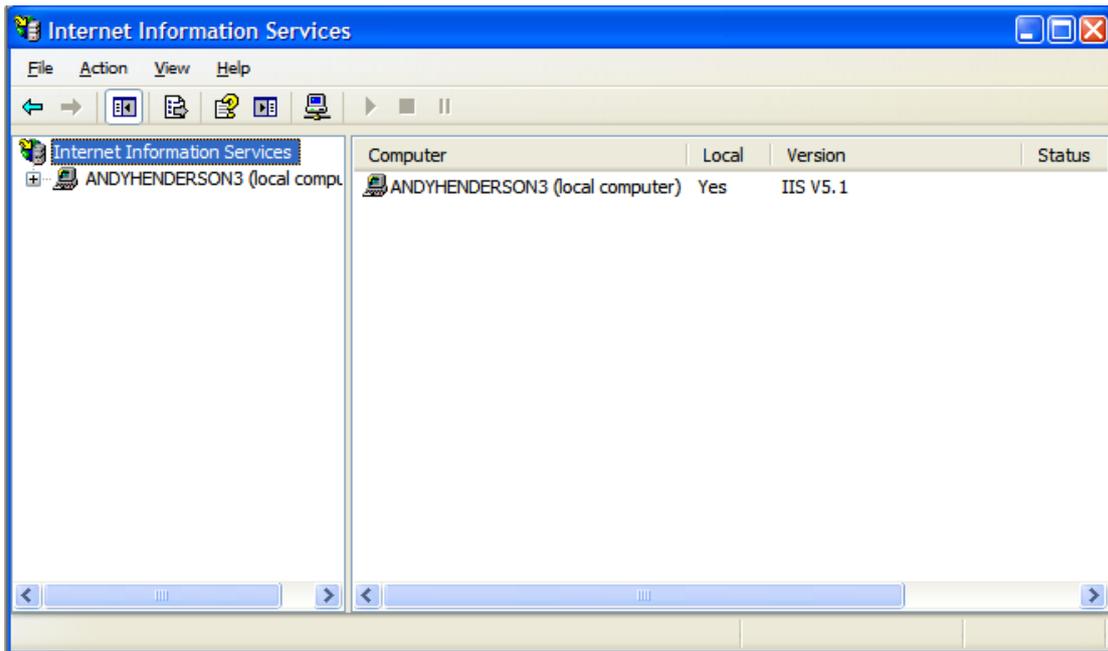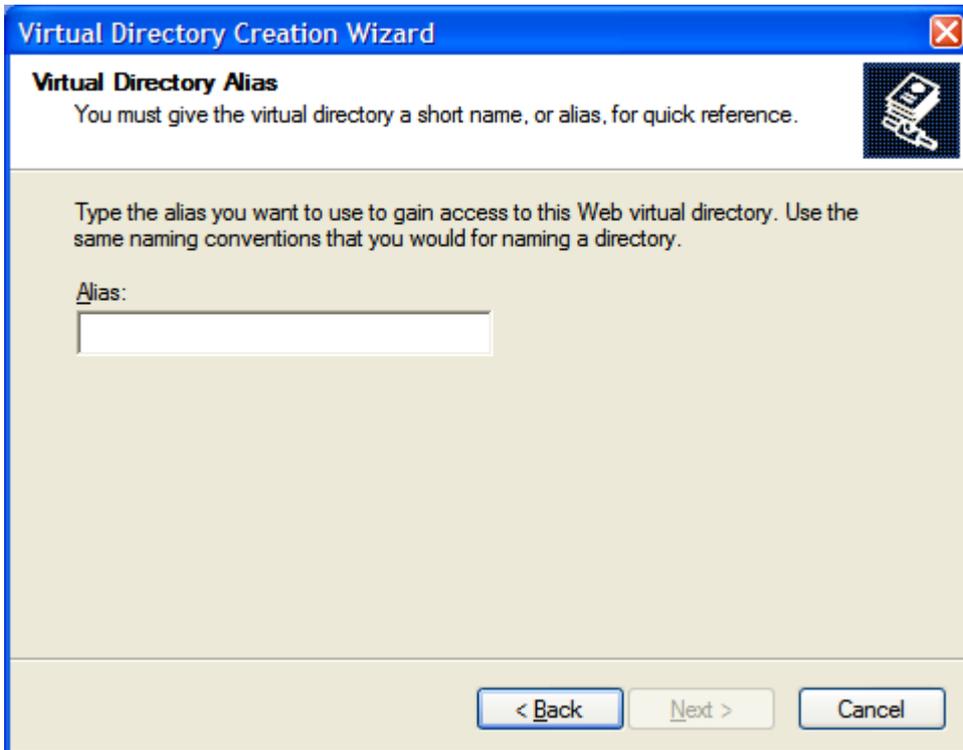

12.2.1   Find out the IIS application folder

In the left pane of the IIS Manager, click the plus to see 'Web Sites'. Click the plus next to 'Web Sites' to see 'Default Web Site'. Right click 'Default Web Site' and click 'Properties' to see the properties window. Click the 'Home Directory' tab. The main application folder is shown next to 'Local Path'.

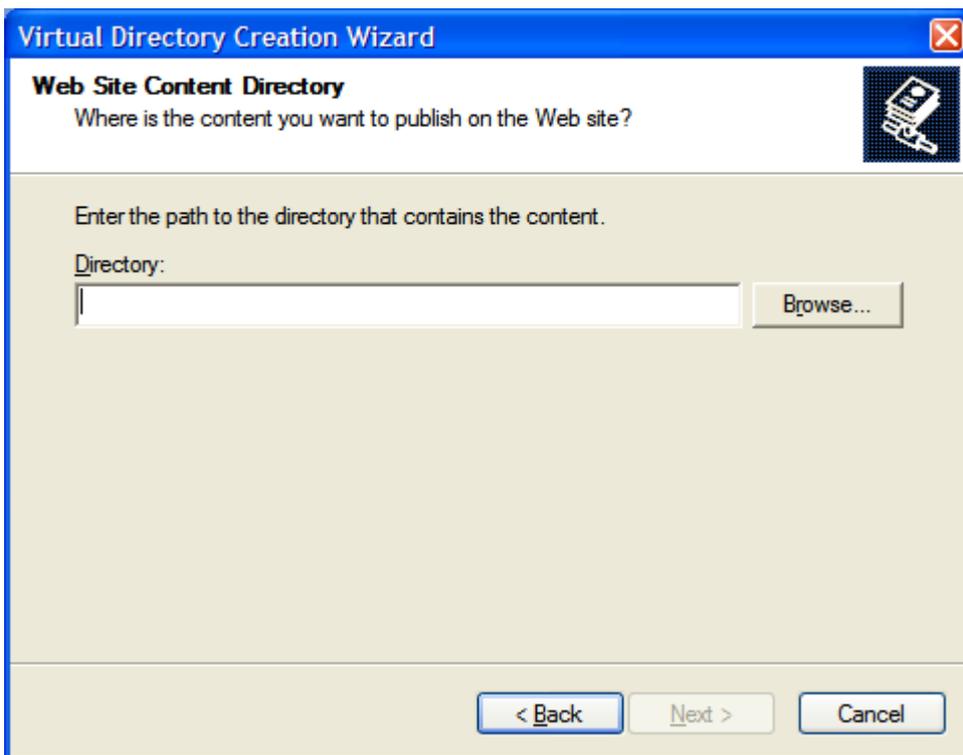### 12.2.2 Create a virtual folder for your application

In the left pane of the IIS Manager, click the plus to see 'Web Sites'. Click the plus next to 'Web Sites' to see 'Default Web Site'. Right click 'Default Web Site' and click 'New' and 'Virtual Directory…':
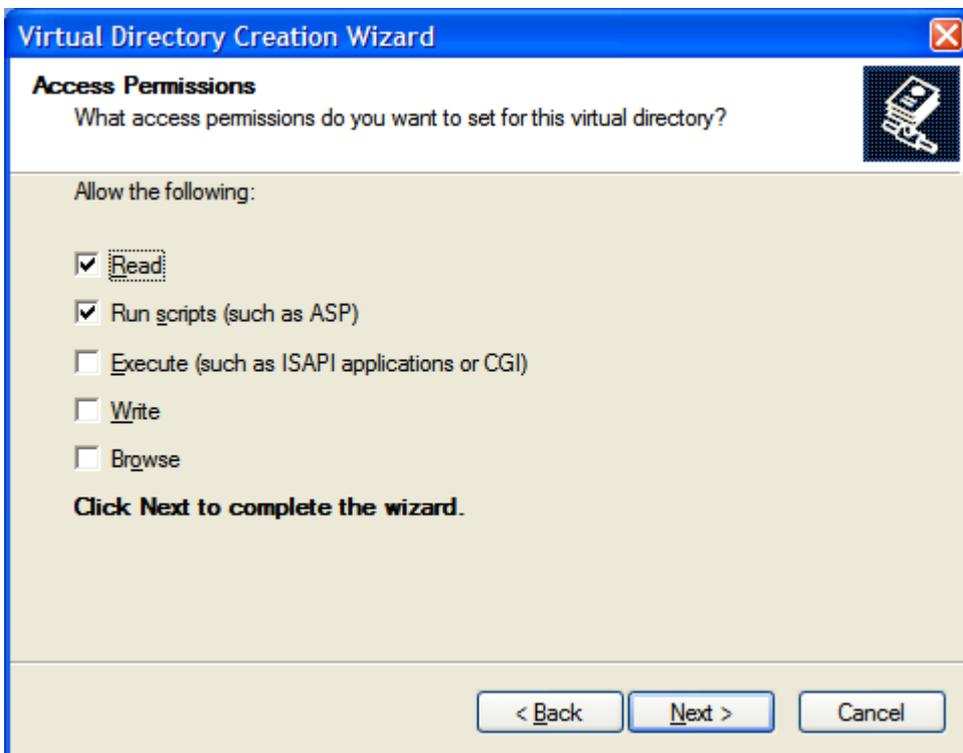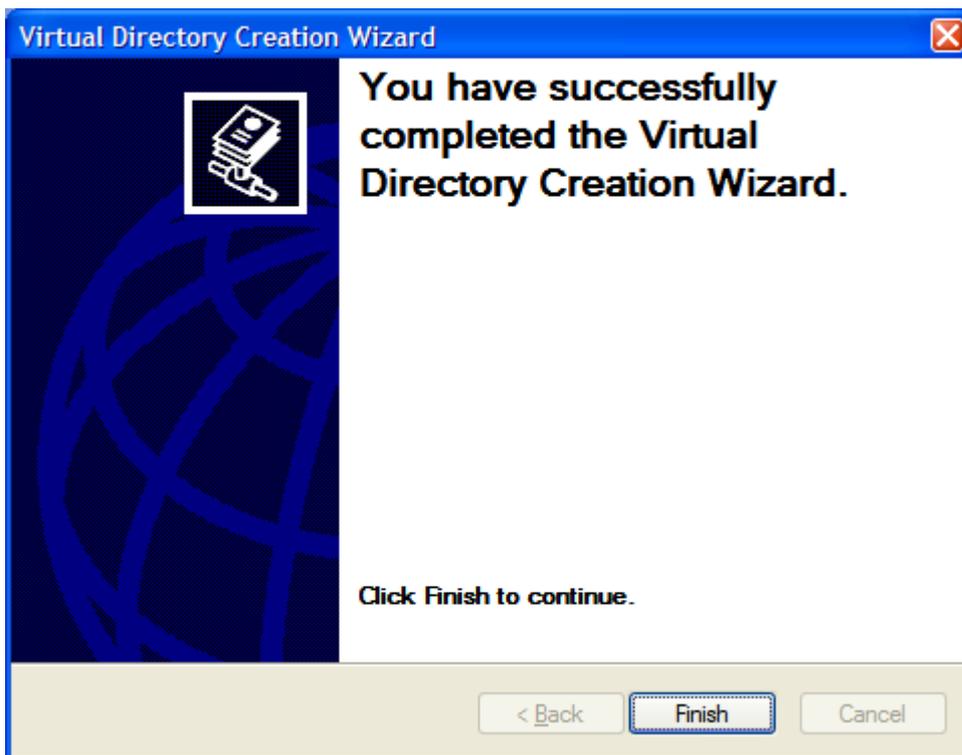

Click 'Next':

Enter "CABLIS" in 'Alias' and click 'Next':

Virtual Directory Creation Wizard

Web Site Content Directory
Where is the content you want to publish on the Web site?

Enter the path to the directory that contains the content.

Directory:

[   ] [Browse...]

[< Back] [Next >] [Cancel]

Enter the path to your CABLIS folder in 'Physical path'. The 'Browse' button allows you to browse to it. Click 'Next':

Virtual Directory Creation Wizard

Access Permissions
What access permissions do you want to set for this virtual directory?

Allow the following:

☑ Read
☑ Run scripts (such as ASP)
☐ Execute (such as ISAPI applications or CGI)
☐ Write
☐ Browse

Click Next to complete the wizard.

[< Back] [Next >] [Cancel]

Tick 'Write' and click 'Next':

You will now see 'CABLIS' under the 'Default Web Site' in the left hand pane of the IIS Manager.

12.2.3   Create an application pool for your application

This step is unnecessary for IIS 5 – it doesn't support application pools.

12.2.4   Tell IIS your CABLIS folder is an application

Navigate to your CABLIS folder under the 'Sites' folder in the left hand pane of the IIS Manager. Right click the CABLIS folder and click 'Properties'. The screen you see will depend on whether you added CABLIS as a folder to the main IIS folder, or whether you created a virtual folder. You can tell the difference because the former will show a 'Directory' tab, while the latter will show a 'Virtual Directory' tab. Execute one of the next two steps then continue with the 'For both directory and virtual directory' step below.
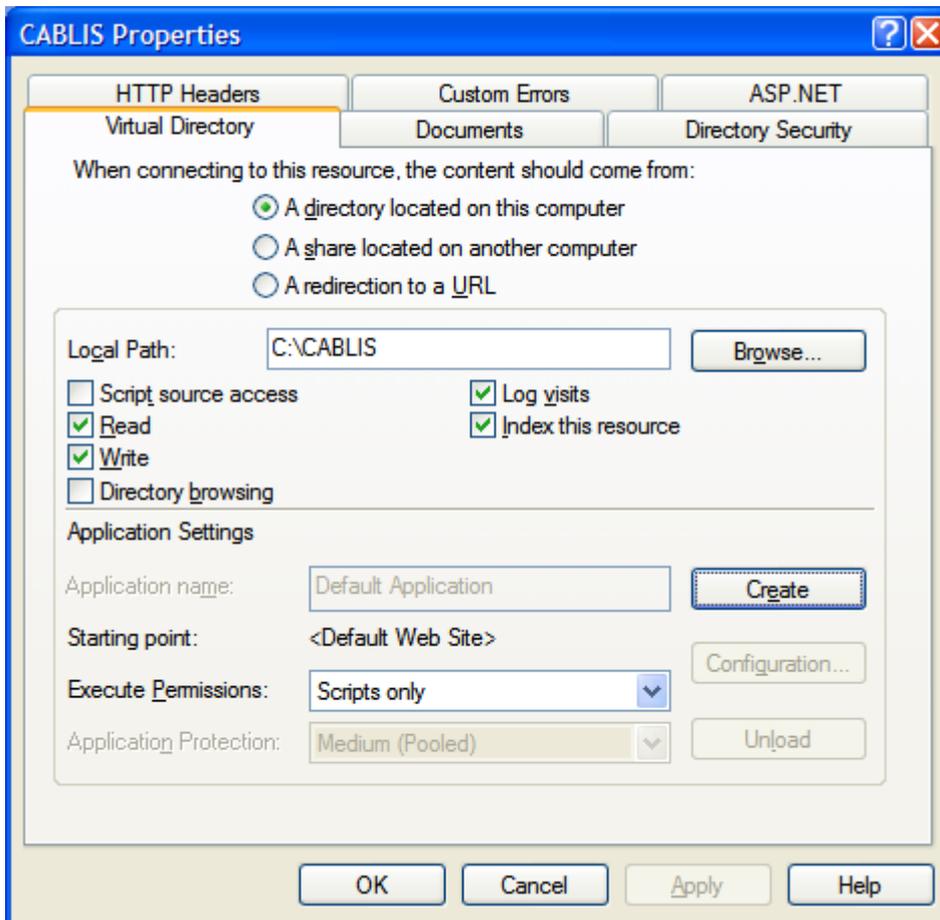
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For a directory

Click 'the Directory' tab. The properties window will look something like this:
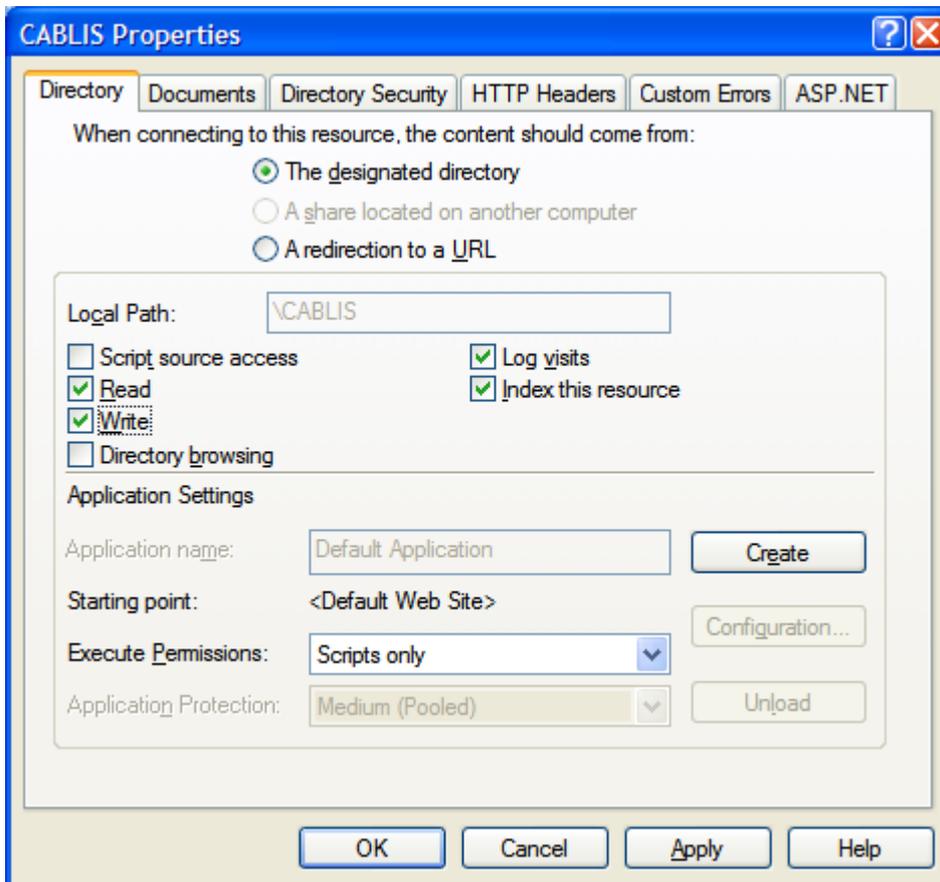
Click 'Create'. IIS will default your application name to CABLIS.
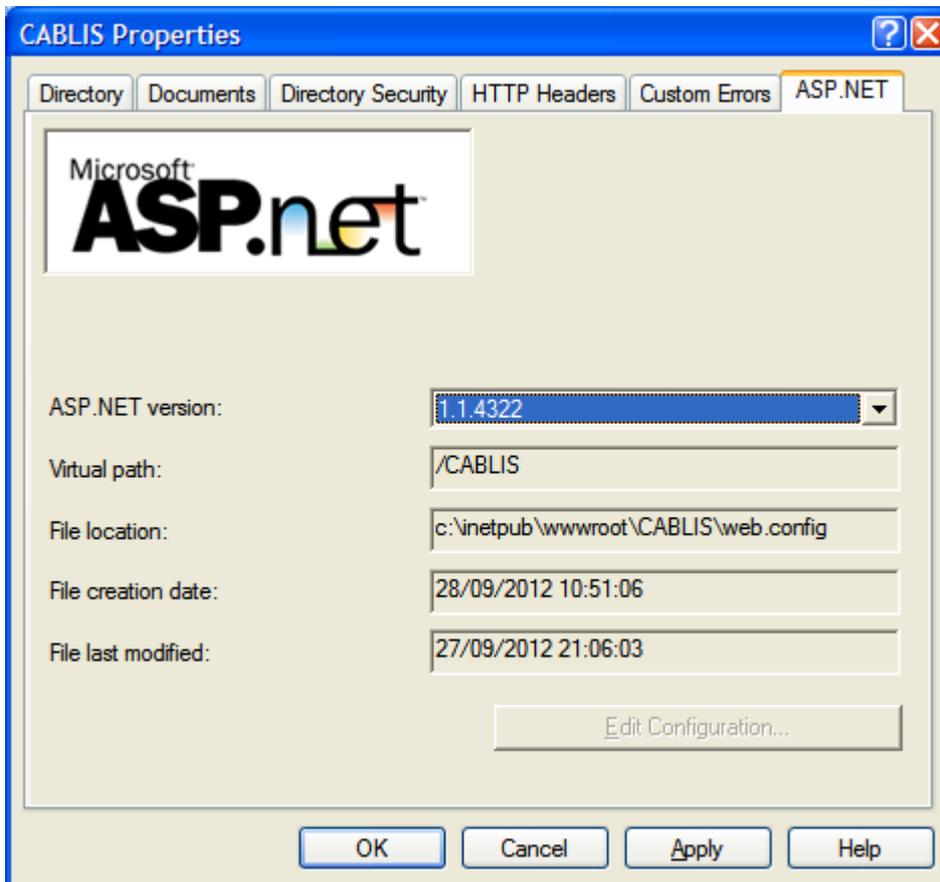
For a virtual directory

Click the 'Virtual Directory' tab. The properties window will look something like this:

Click 'Create'. IIS will default your application name to CABLIS.
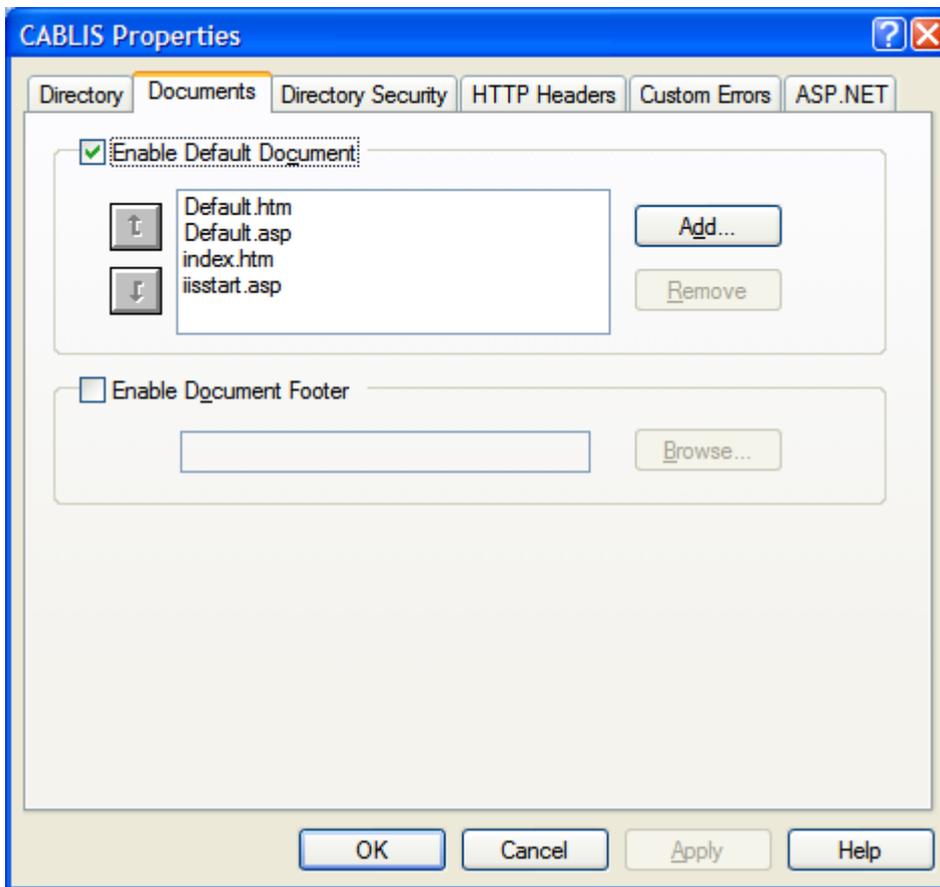
For both directory and virtual directory
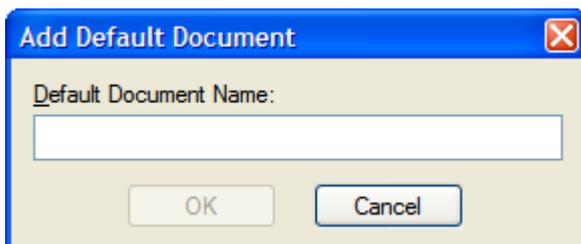
Click the 'ASP.NET' tab:

Select 2.0.50727 next to 'ASP.NET version'. Click 'OK' to complete the change.

12.2.5 Tell IIS that LIS.aspx is the default page

Navigate to your CABLIS folder under the 'Sites' folder in the left hand pane of the IIS Manager. Right click the 'CABLIS' folder and click properties. Click the 'Documents' tab:


Click 'Add...'

Enter LIS.aspx and click 'OK'. LIS.aspx will now appear in the list of default documents. Click it to select it and click the 'up arrow' button until it is at the top of the list. Click 'OK'.

12.2.6   Create a virtual folder for a document folder
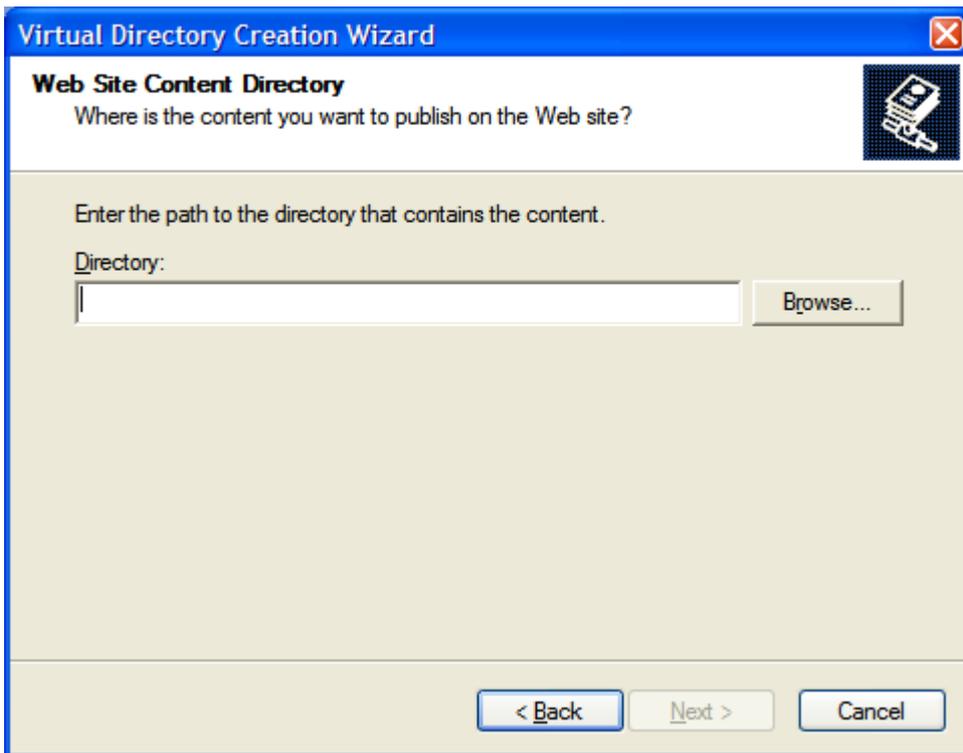
Navigate to your CABLIS folder under the 'Sites' folder in the left hand pane of the IIS Manager.
Right click 'CABLIS' and click 'New' and 'Virtual Directory…':
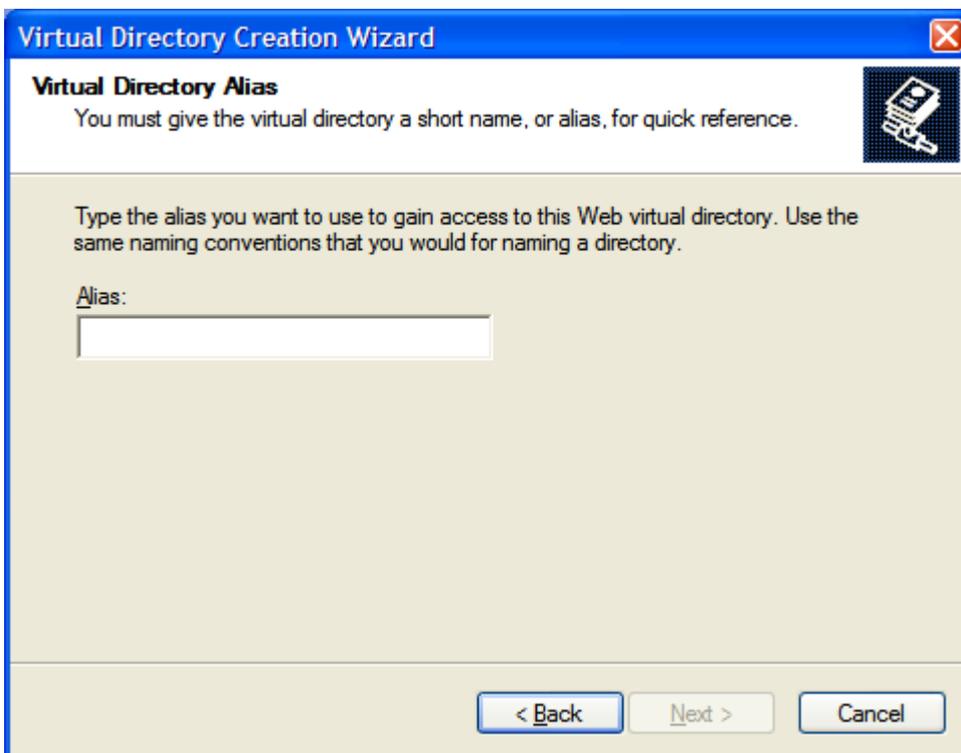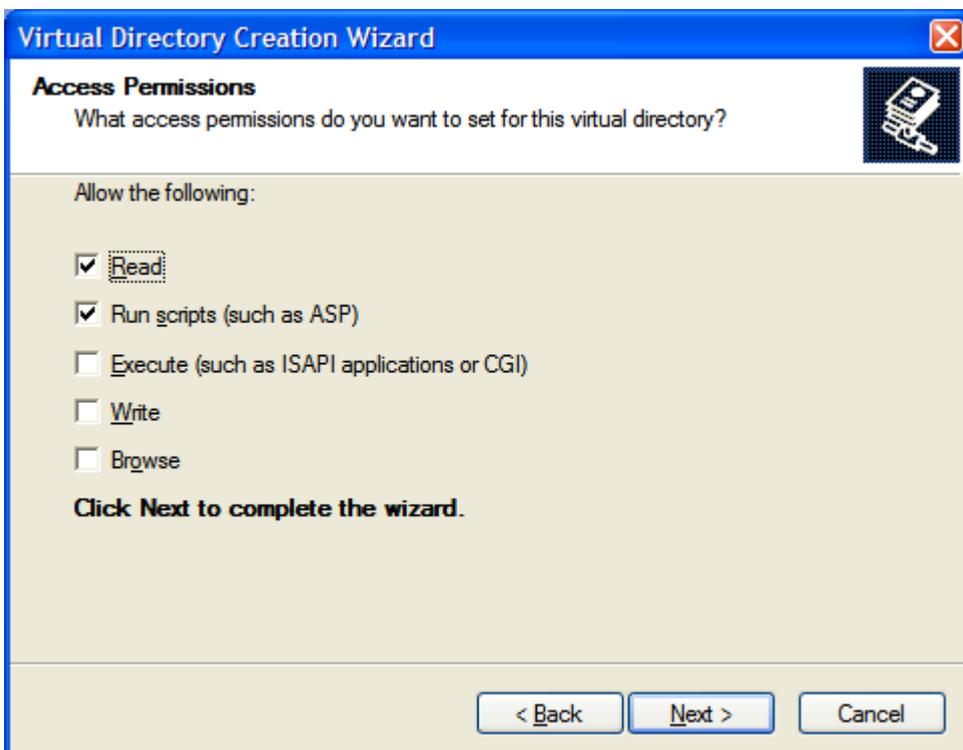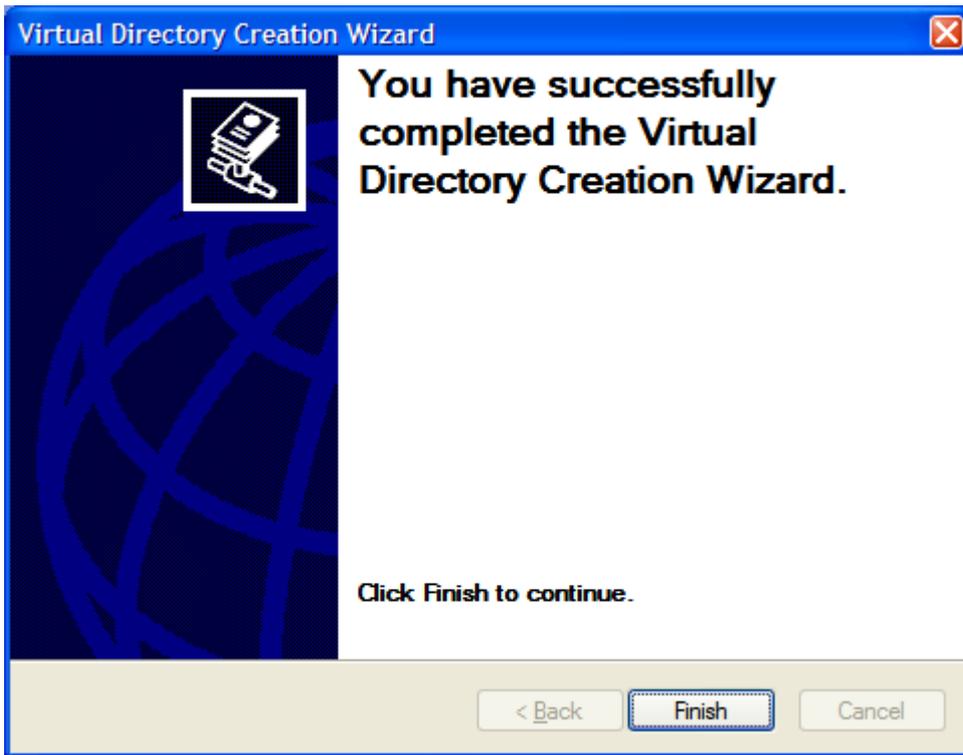

Click 'Next':

Enter your selected name for the folder in 'Alias' and click 'Next':

Enter the path to the corresponding document folder in 'Physical path'. The 'Browse' button allows you to browse to it. Click 'Next':

Click 'Next':

You will now see you selected name under the 'CABLIS' site in the left hand pane of the IIS Manager.

12.3 Install Microsoft Data Access Software

To run successfully, the intranet application needs software to be able to read the Local Information System database. It is possible you already have suitable software installed. If you are unsure, you can use the 'TestFileReferences.aspx' page to find out. If it shows one (or both) of the following in the 'Available database providers' section:

- Microsoft.ACE.OLEDB.12.0
- Microsoft.Jet.OLEDB.4.0…

… you do not need to install any data access software.

Otherwise we recommend you download a copy of "Microsoft Access Database Engine 2010 Redistributable" from the Microsoft Download Centre at http://www.microsoft.com We link direct to a copy from http://www.SeeITA.com/CAB/Downloads.shtml .

You will see that two versions are provided: 32-bit and 64-bit. Choose the one appropriate for your Operating System (you will be unable to install the wrong one).

12.4 Integration with other intranet applications

The main section of this document installs the system as a subfolder to the IIS default web site. If you already have an intranet you might want to consider a couple of alternate configurations:

1. Install the system as a subfolder to your intranet. That's best done using a virtual folder pointing to a different location to your intranet application. That will prevent people from deleting or disrupting the Local Information System by mistake when working with the intranet.
2. Install the system as a separate web site. That would be the best approach if there's a serious risk of confusion when maintaining the intranet. The simplest way to do that is to use a different port (web sites use port 80 by default). For example, if you set the system up on port 8080, you would connect to the Local Information System using a link like:

- http://*serveraddress*:8080/
- Let us know if you would like some help with this.

You can, of course, cross link between your intranet and the Local Information System:

1. You can link to your intranet from the Local Information System using a web link or a link embedded in an item
2. You can link to the Local Information System in several ways:
    a. A simple link to the system
    b. A link to a specific document: add ?id=*nnn* to the end of an LIS link where nnn is the document's internal id
    c. A link to a search: add ?search=*xxx* to the end of an LIS link where xxx is one or more search terms (separated by a space)

12.5 Differences between the desktop and intranet versions

We describe the differences when:

1. Enquiring on the database
2. Making changes

Please let us know if there's something we missed.

12.5.1 Enquiring on the database

The intranet version implements most of the features of the desktop version but there are some differences:

1. The intranet version implements the full range of searches previously available only in the desktop maintenance program.
2. If you are using SQL Server to store your data, you get a new ability to search the words used in database entries. Note, however, this might be suppressed in your site if it causes performance problems.
3. In the desktop version, all pages are displayed within the same window. You have to use 'back' to return to the list of matches. In this version, linked pages are displayed in a separate window or tab (depending on your browser's setup). That makes it easier to review multiple items simultaneously. There is therefore no need to provide an option to stop pages from forcing linked pages to display in a new window as there is in the desktop version.
4. The desktop version requires you to click either the Search or AZ buttons to search the database. The intranet version will use the 'Search' method if you press Enter while typing in the search box.
5. You can drag the right edge of the main page's search pane to a position that suits you best but, unlike the desktop version, the rest of the page does not resize automatically. It will adjust to fit the next time you click one of the search buttons (or refresh the page).
6. This version does not provide a mechanism to auto-hide the search pane.
7. This version does not show an internet search button (because web searches are supported directly by the browser).
8. This version ignores any soft button configured to generate a web search.
9. This version supports the special 'CABLINK' web address used by administrators with a couple of differences:
   a. The desktop version supports this form of address in any page it displays (including sites it links to). This version detects CABLINK addresses only in database items.
   b. This version ignores the CABLINK address variant that causes an internet search in the desktop version.
10. This version does not provide options for zooming pages or resizing text. Instead, these features are provided directly by the browser.
11. The desktop version uses Internet Explorer and runs under Windows PCs, this version works with just about any equipment supporting a web browser.
12. The desktop version alerts you to updates in search results linked from a soft button by flashing the button colour. This version does this with a red border to the button.

13. This version allows you to use the full range of features supported by your chosen browser. The desktop version implements a subset of the Internet Explorer features.
14. This version comes with an access control system so it can be deployed on the internet without giving access to everyone. This system allows you to:
    a. Restrict access to: specified items; specified sections of items; or the entire database
    b. Create individual users that can each maintain their own passwords
    c. Connect users together in groups to make managing access control easier
    d. Set up shared ids and passwords (though that practice is not recommended)
    e. Support anonymous users that do not have to log in; you can automatically assign anonymous users to a suitable group to control their access
15. The desktop version ignores the access controls. It looks for and removes [HideFrom] tags in entries, but they have no effect. All entries and all the text of each entry are visible to desktop users that share the database with intranet users.
16. The desktop version cannot contain a document library. Instead the document library requires the intranet version using a SQL Server database.

12.5.2   Making changes

The way you make changes is broadly similar between the desktop and intranet versions. There are, however, a number of differences resulting from the underlying technologies which are quite different. Most significantly:

- Editors get the ability to create rich text for database entries using a simple editor that does not require knowledge of HTML (the language of the internet). Instead, people use highlighting and buttons like they do with, for example, Microsoft Word. The editor shows how text will appear as it is being created.
- For each item in the database, you can specify which groups of users cannot see it.
- When maintaining an item, you can hide sections of the text from specified groups of users.
- If you use SQL Server, this version allows up to 800 characters for index entries. The limit in other versions is 255 characters.
- We use a simpler method for specifying alternate index entries.
- The desktop version tops and tails entries with <p> and </p> when displaying them in the enquiry program. That means people can create entries without knowing any HTML. The intranet version stores entries as complete web pages. The database keeps track of which version last maintained each entry, but the desktop version will require you to make extra editing changes if you update an entry that was last modified by the intranet version.