> dovestones software

AD Phonebook 3.6

Installation and configuration

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Introduction

AD Phonebook is a browser-based program that is installed on a Windows Server running IIS. The AD Phonebook reads user data you already have stored in Active Directory and displays it to your organization in a readable accessible form. Active Directory is normally an organizations company wide user database, the data you have stored here can be used to create the perfect employee directory. There are many uses for the AD Phonebook and we have seen it used in many creative ways. If you have users or contacts stored in Active Directory that you would like to present to your users or even a third party then AD Phonebook can help.

AD Self Update

AD Self Update is a separate program that allows your users to update their own Active Directory contact information, we mention it here as it is the perfect companion to AD Phonebook. Empowering employees or HR to update AD user data ensures your phonebook is as up to date as possible. To read more about AD Self Update click here.

Technical Support

This document will walk you through AD Phonebook installation and configuration. Should you have any further questions please contact us at support@dovestones.com.

Prerequisites

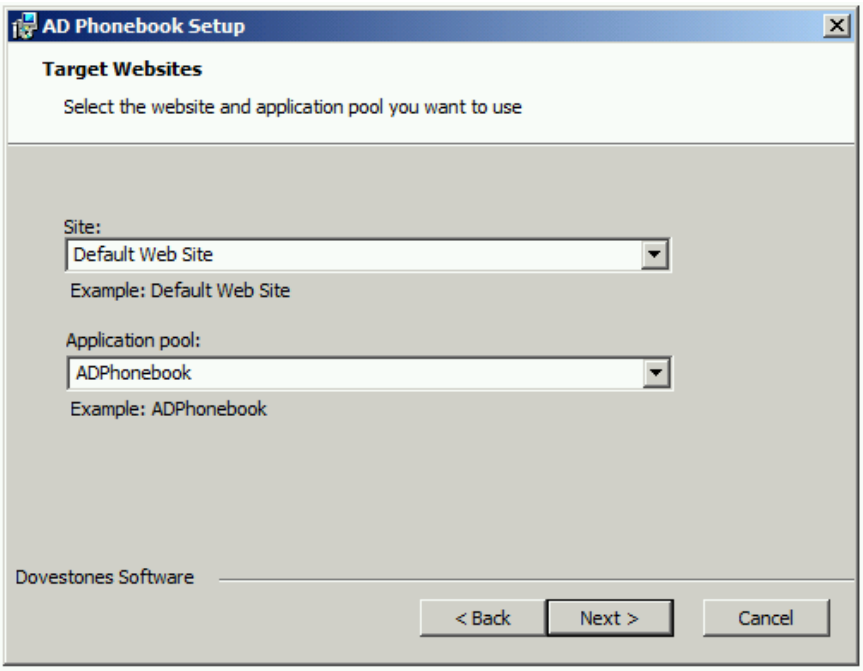
The following software should be installed before installing the application:

- Windows Server 2008 R2, 2012, 2012 R2, 2016.
- Internet Information Services (IIS) with World Wide Web Service installed.
- Microsoft .NET Framework 4.5
- SQL Compact 4 (added during installation) or external Microsoft SQL Server
- An Active Directory user that you will use as the service account to connect and read Active Directory, this should be a standard account that has a strong password which doesn't expire.

Installation

Please follow these steps to install AD Phonebook on a Windows Server with the prerequisites listed above:

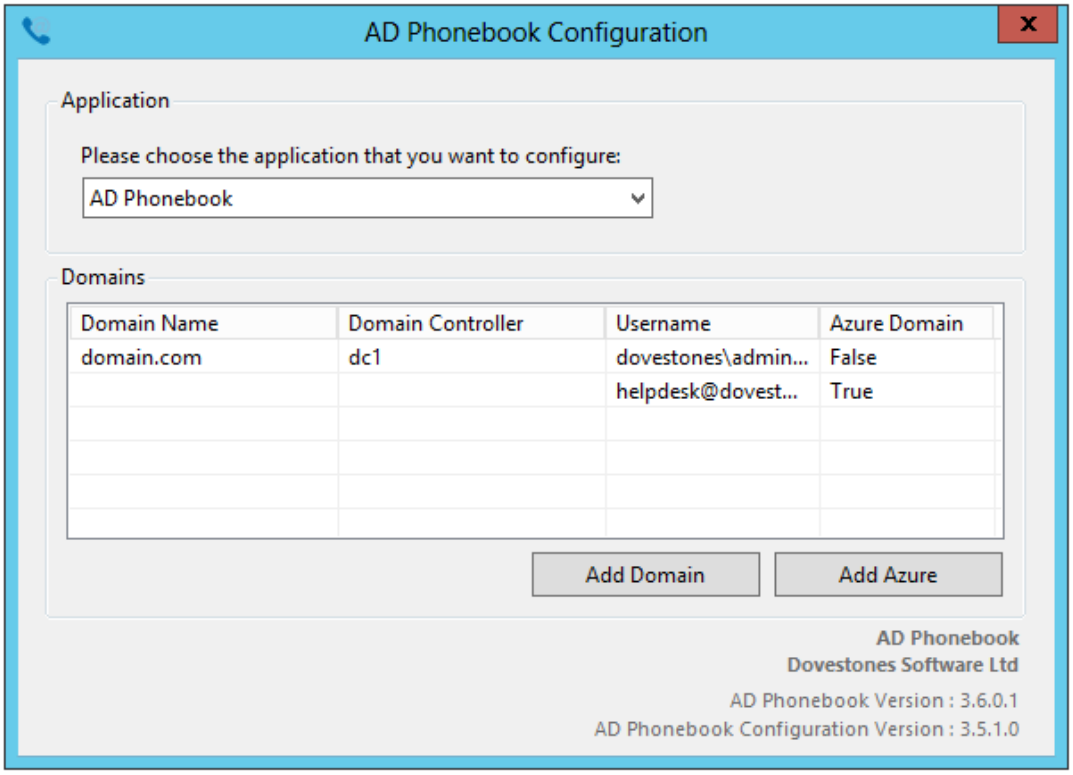
1. Run the installer file and click *Next* at the welcome screen
2. Select the web site where you would like the phonebook installed. Select an Application Pool to use or click Next and one will be created for the program named ADPhonebook.



3. Wait for the installation to complete then click *Finish*.
4. Upon a successful installation run the AD Phonebook Configuration to add a service account which will be used to connect to and read data from Active Directory.

Follow these steps to configure the Active Directory domain(s) that the application will use.

1. From the Start menu open the *AD Phonebook Configuration* program
2. Click on the 'Add Domain' button or if connecting to Azure AD click 'Add Azure'.
3. Enter the required information to connect to Active Directory, Domain Controller, Domain Name and the user credentials then click OK. For Azure AD specify a user for the connection and a Client ID. To obtain a client ID follow the steps on the following page (https://dovestones.com/creating-a-client-id-to-connect-to-azure-ad-using-ad-phonebook/) Note: You must supply user credentials that has sufficient permissions to read user and contact objects.



4. Repeat steps 3 and 4 to add additional domains (this is optional, multiple domains are supported).
5. Press 'Test Connection' to check the username and password are valid.
6. Basic configuration is now complete close the program.

Accessing the AD Phonebook web page

When you have added your service account using the AD Configuration tool you can visit the AD Phonebook web page, the address depends on the web site where you have chosen during the installation (step 2), if this was the default web site then the URL http://localhost/ADPhonebook should work.

Your URL would be the web site address followed by /ADPhonebook.

Example URLS:

http://servername/adphonebook/
http://192.168.1.2/adphonebook/

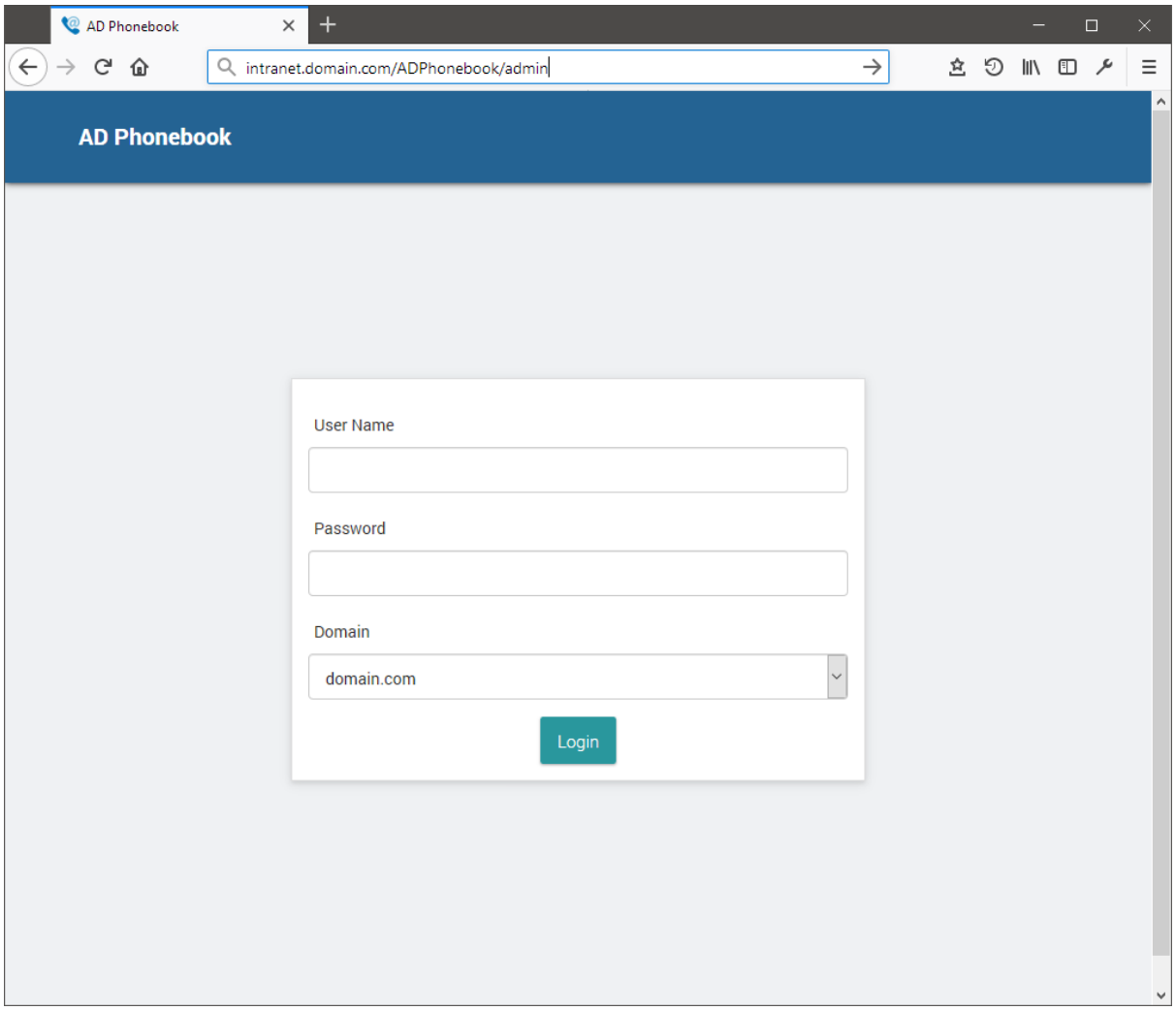
http://172.16.1.2/adphonebook/
http://10.10.1.2/adphonebook/

Note: The first load of the phonebook will take a little longer than normal.

Accessing the Admin page

The Admin page allows you to customize the phonebook and define which users will be shown. The Admin page can be accessed by adding /Admin to the phonebook URL, by default, users that are members of the Domain Admins, Built-In\Administrators (in AD not local) can access the admin page. Alternatively, you can create a group named ADPhonebookAdmins anywhere in AD and members of this group are granted access. Regular domain users will be unable to access the admin page.

Example URL: http://servername/adphonebook/admin/



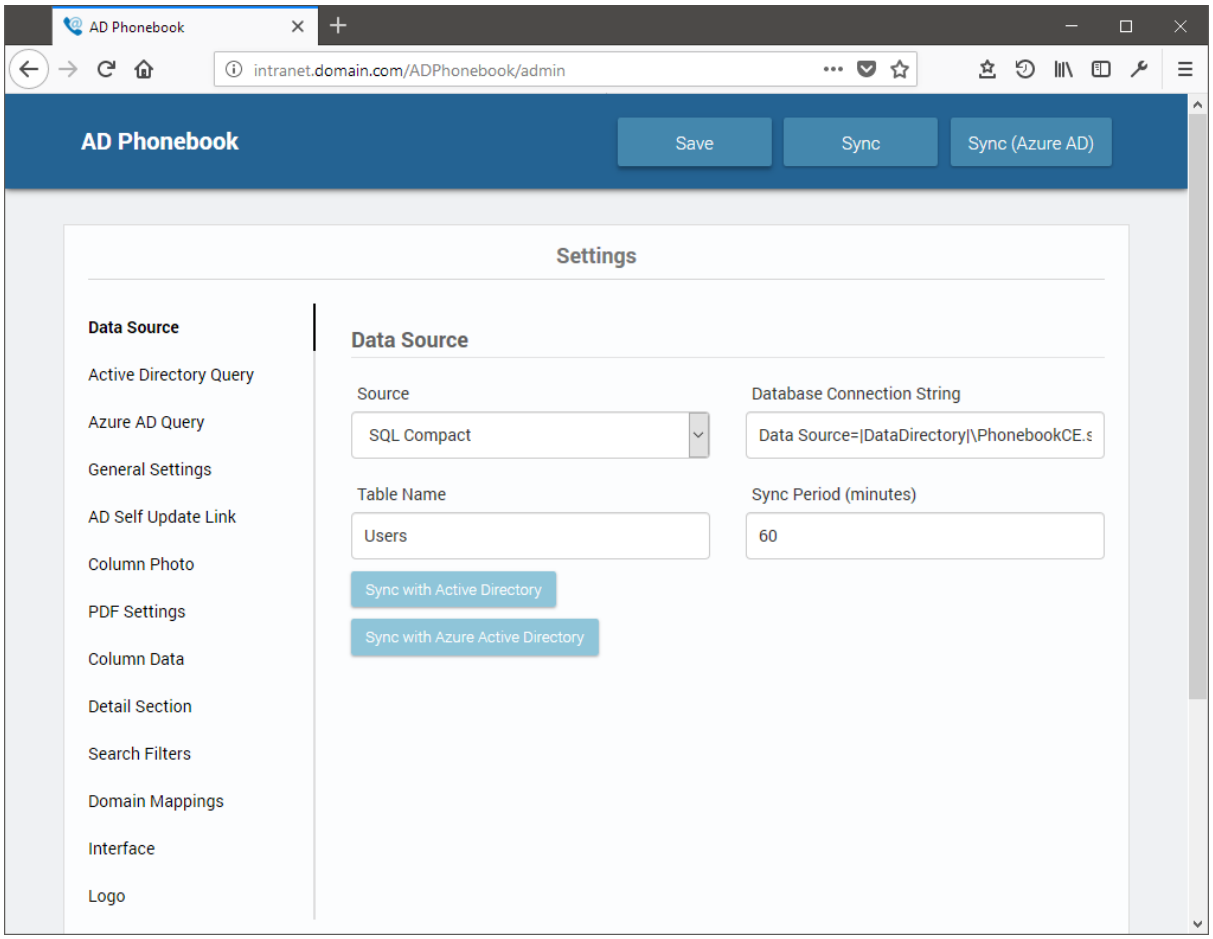
Saving Changes

When you have made changes on the Admin page click the save button in the header to save the change, changes are written to the 'Settings.config' file which can be found in the App_Data folder (typically: C:\inetpub\wwwroot\ADPhonebook\App_Data\). Backing up this file is recommended.

Data Source

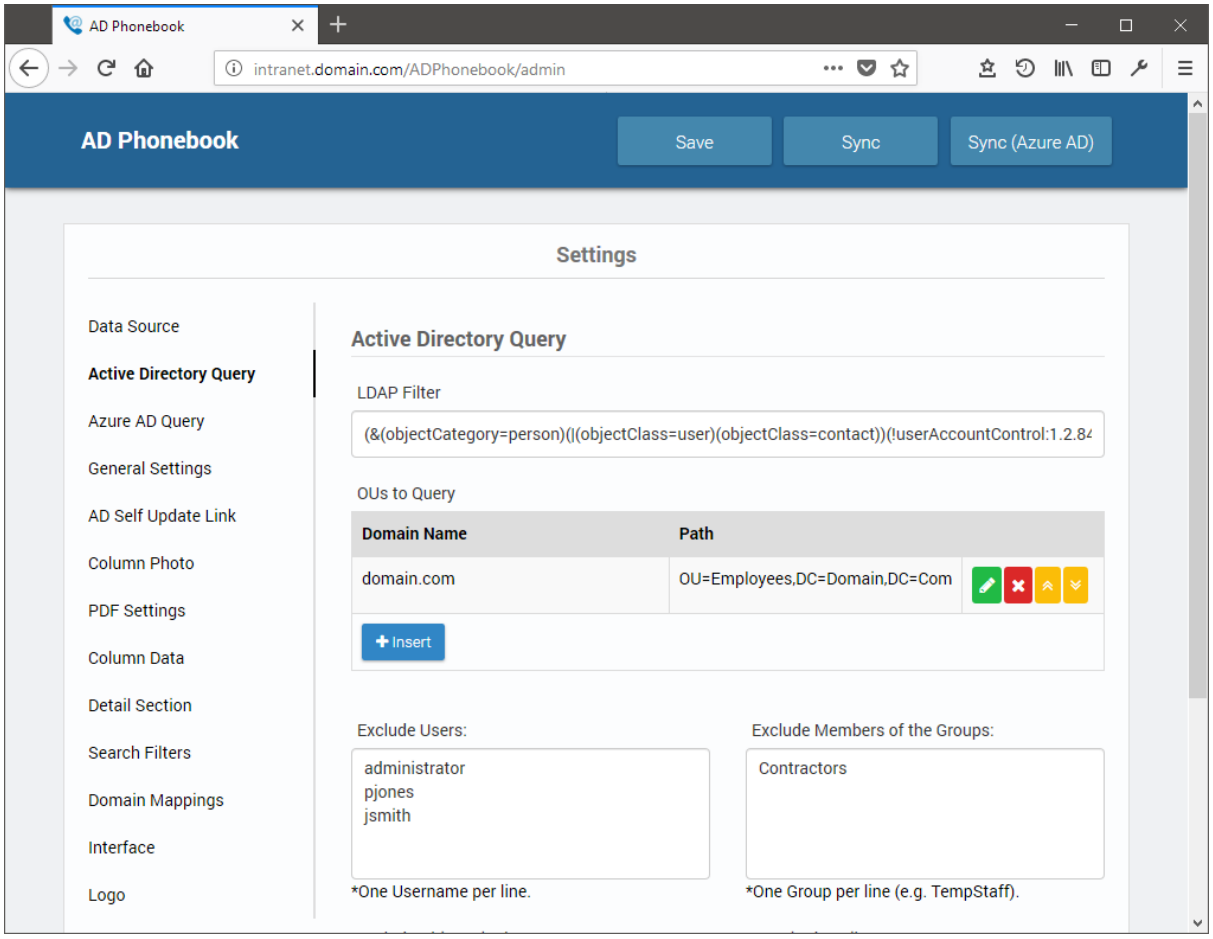
Below is a screen shot of the Admin page showing the Data Source section. Here you can specify a data source and how frequently the program will synchronize with Active Directory, the default is 60 minutes. The default data source is SQL Compact. An external Microsoft SQL Server is also supported.

Note: Click the button 'Sync DB Now' to start the synchronization with Active Directory.



Who is shown in the phonebook?

The Active Directory Query section of the Admin page controls which users/contacts are shown in the phonebook. The LDAP Filter will show users and contacts but hide disabled users, the filter can be changed, you will find many examples on the web of modifying Active Directory LDAP filters.

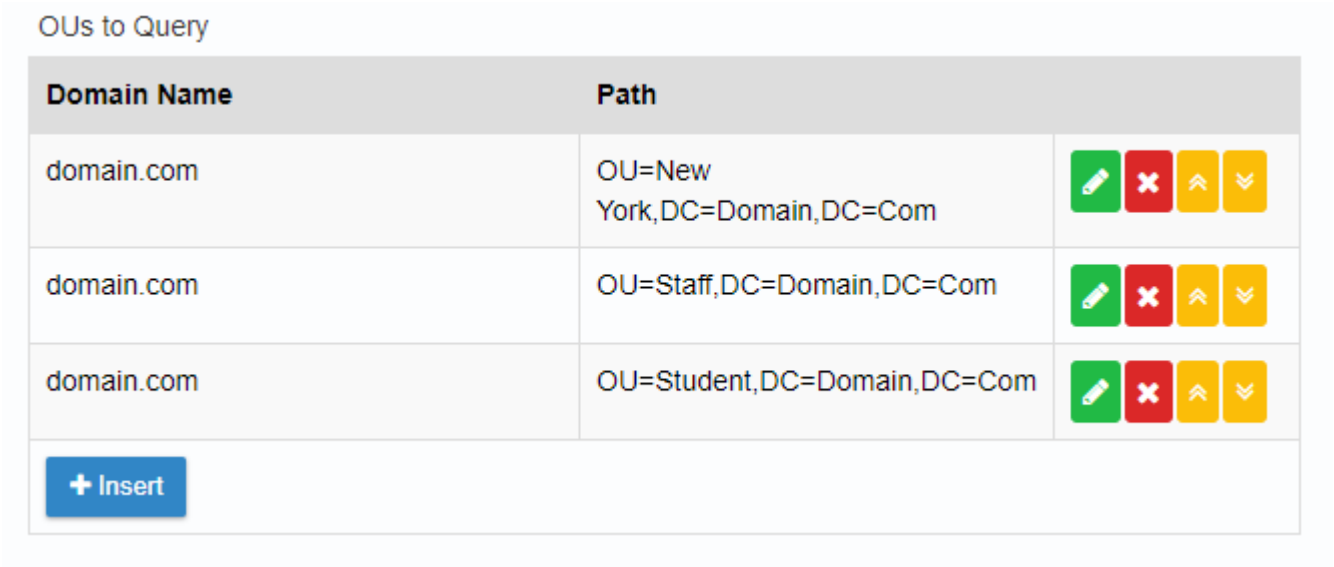


By default, the program will display all users in Active Directory that have a value in the telephone number (*telephoneNumber attributre*) and an email address (*mail attribute*), other users will be excluded. Below we'll explain how to include and exclude users.

OUs to Query

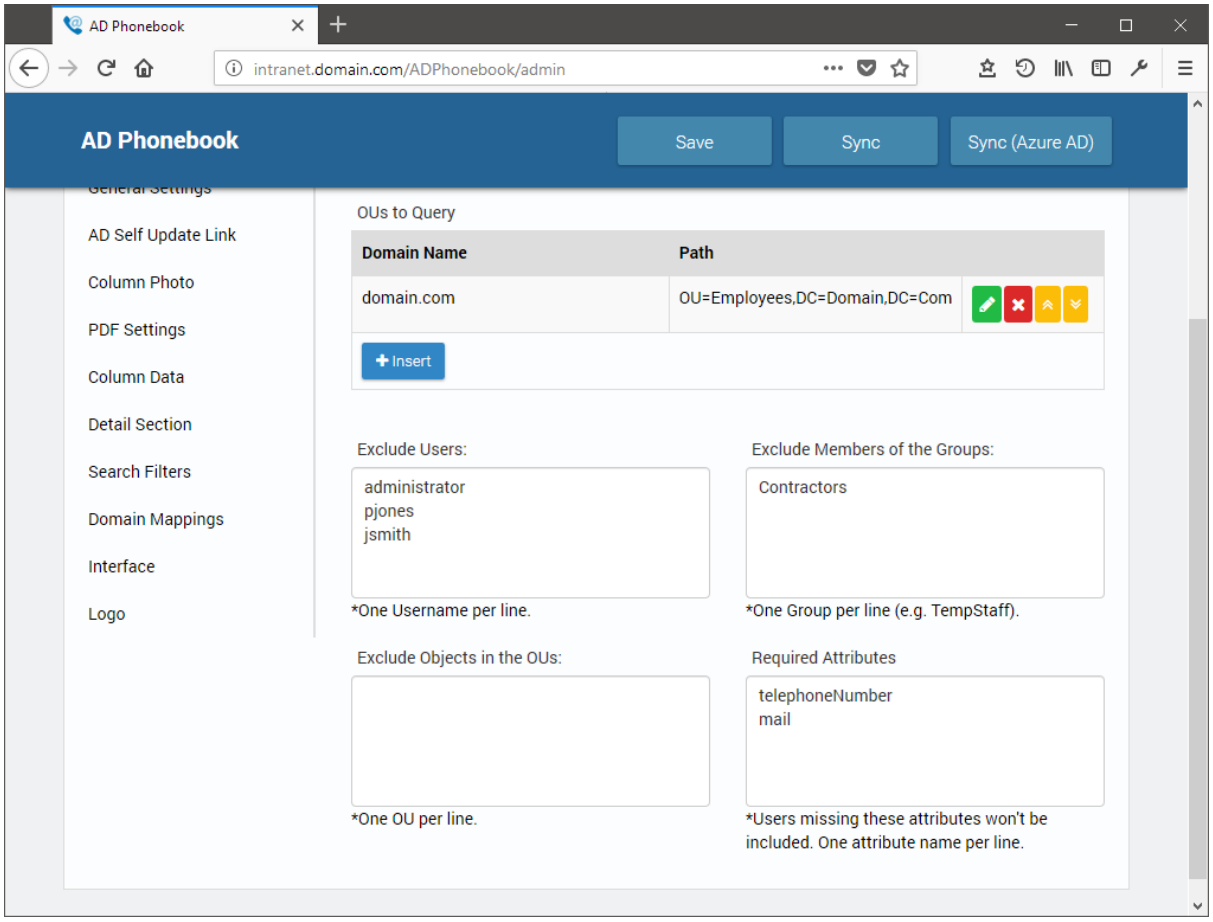
Under the section named OUs to Query you can add Organization Units which the program will read, users/contacts outside of these OUs will be excluded.

Click the Insert button to add an OU, in the example below, users in the New York, Staff and Students OUs would appear in the phonebook, users outside of these OUs would not be shown. Users in these OUs could still be excluded if the meet the criteria of another exclusion setting such as are they a member of an excluded groups or are they missing a telephone number or email address.



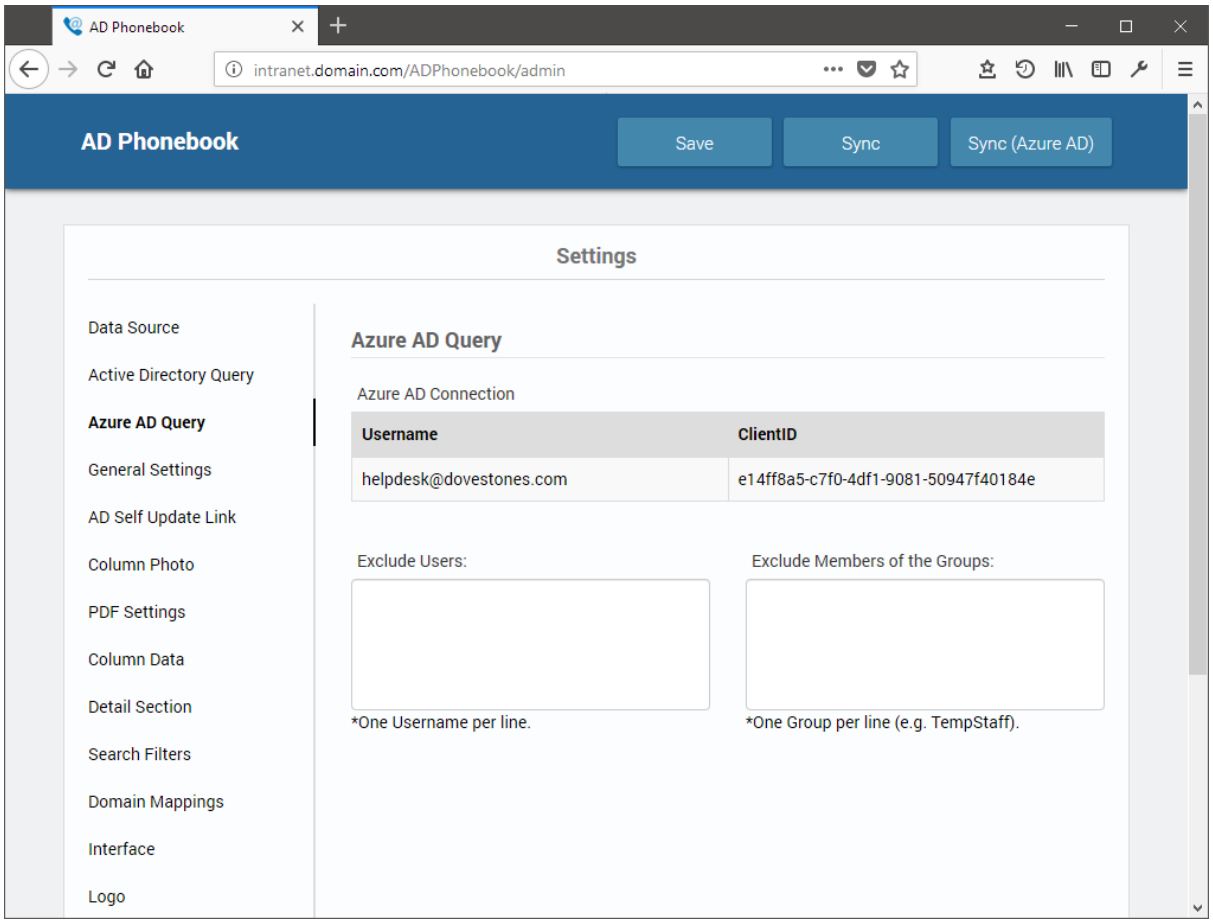
Hidden Users, Groups and OUs

Should you want to hide certain users or groups add them to the Exclude Users/Group/OUs section, see the example below.


AD Phonebook
intranet.domain.com/ADPhonebook/admin
AD Phonebook
Save
Sync
Sync (Azure AD)
AD Self Update Link
Column Photo
PDF Settings
Column Data
Detail Section
Search Filters
Domain Mappings
Interface
Logo
OUs to Query
Domain Name
Path
domain.com
OU=Employees,DC=Domain,DC=Com
Insert
Exclude Users:
administrator
pjones
jsmith
*One Username per line.
Exclude Members of the Groups:
Contractors
*One Group per line (e.g. TempStaff).
Exclude Objects in the OUs:
*One OU per line.
Required Attributes
telephoneNumber
mail
*Users missing these attributes won't be included. One attribute name per line.

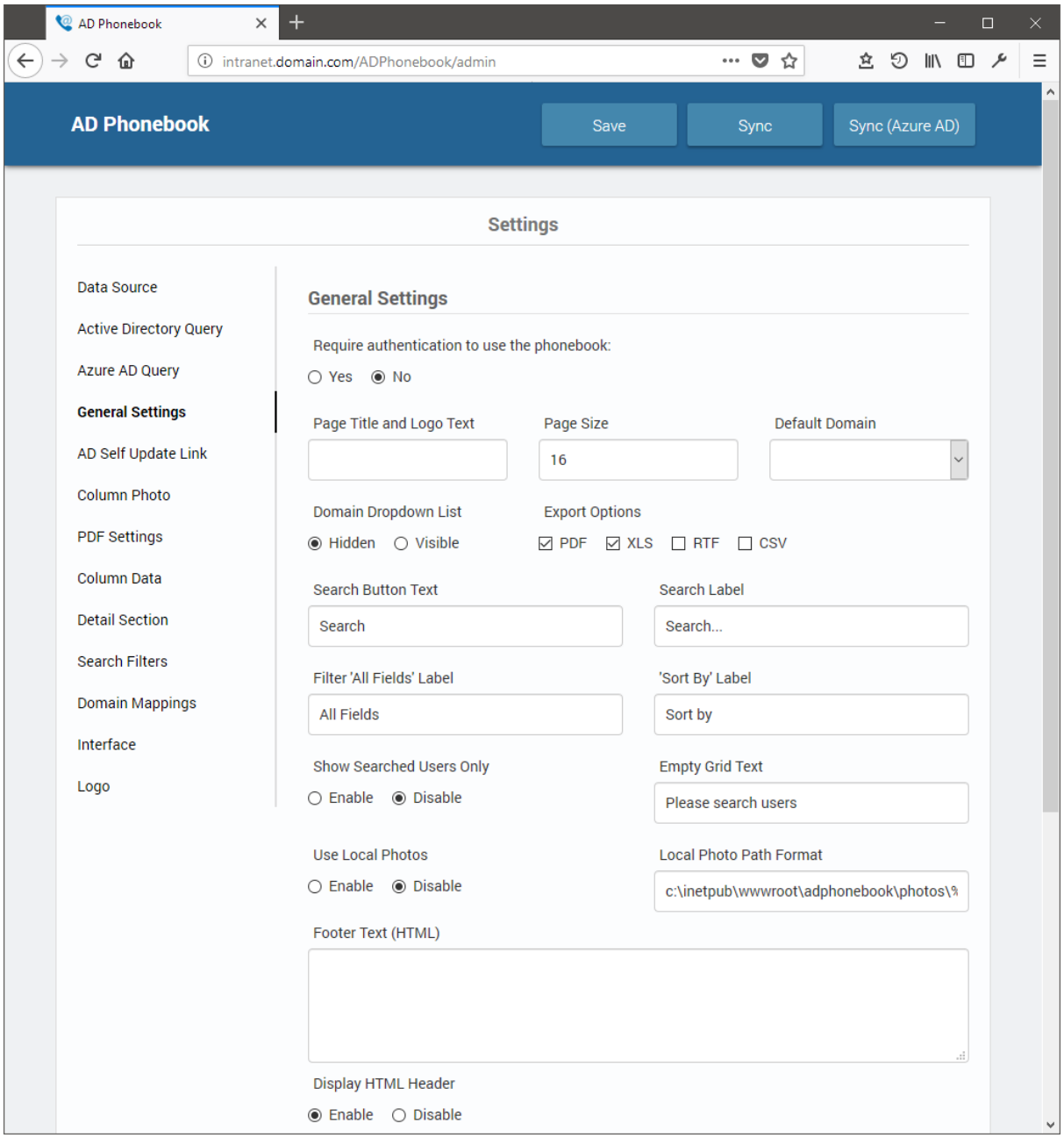
Azure AD Query

The Azure AD Query tab allows you to exclude users and groups that exist in Azure AD that you do now want shown in the phonebook.



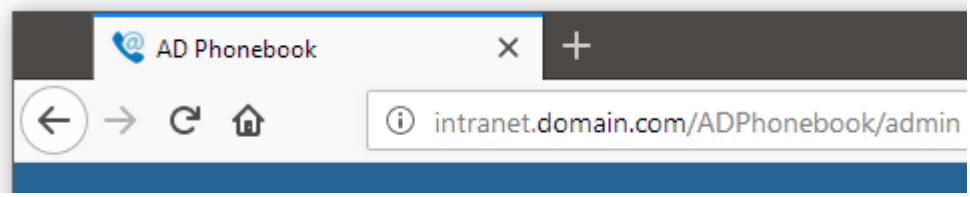
General Settings

From the General Settings tab you can change labels, export options, search options etc. We'll cover each setting below.



Page Title and Logo Text

The phonebook title will appear on the logon page and browser tab.



Page Size

The Page Size value controls how many users/rows are shown per page.

Default Domain

If you have more than one domain specified using the AD Phonebook Config program and you would like this to be shown first in the Domains drop down filter specify it here.

Domain Dropdown List

If you have multiple domains and you want users to be able to switch between domains (e.g. Staff and Students) and perform searches against a specific domain set 'Domains Drop-Down List' to Visible.

You will need to add each domain to the AD Phonebook Configuration utility then enable the domains drop-down list in the Admin page.

Also see Domain Mappings.

Export Options

You can give your users the option of export the phonebook to a file. The export formats are PDF, XLS (Excel), RTF (opens in Word or similar) and CSV (Comma Separated Value).

Button Labels

The labels users see in the header such as 'Search' and 'Sort By' can be changed on the General Settings tab. You can change the language here or change it to a word or phrase you prefer.

Show Searched Users Only

By default, when the phonebook loads you will see some users, if you would rather no users be shown and only display users when searched for then enable this option.

Empty Grid Text

Related to the ‘Show Searched Users Only’ option, the text here is what your users will see when they visit the phonebook and no users are loaded.

Use Local Photos

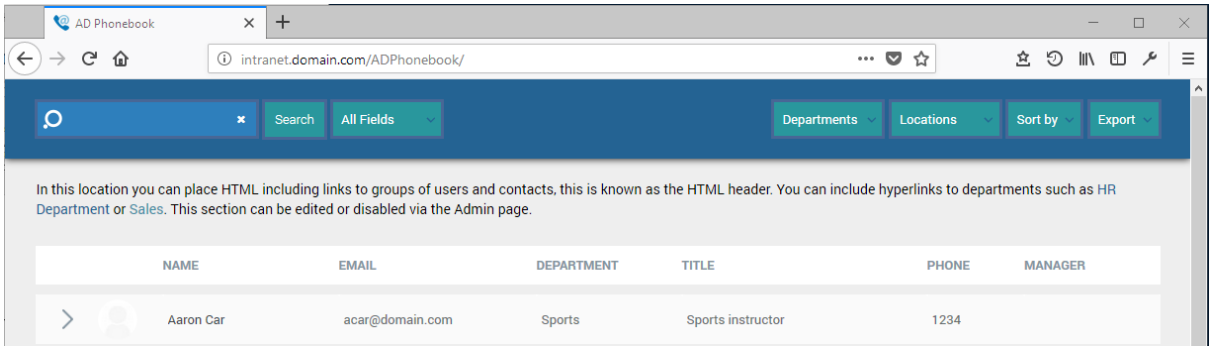
By default the program will load users photos from Active Directory by reading the thumbnailPhoto attribute (by default, you can change this to jpegPhoto if needed). Alternatively you can load photos from a local folder. Enable this option and specify the location of the files in ‘Local Photo Path Format’, the file names should be %username%.jpg.

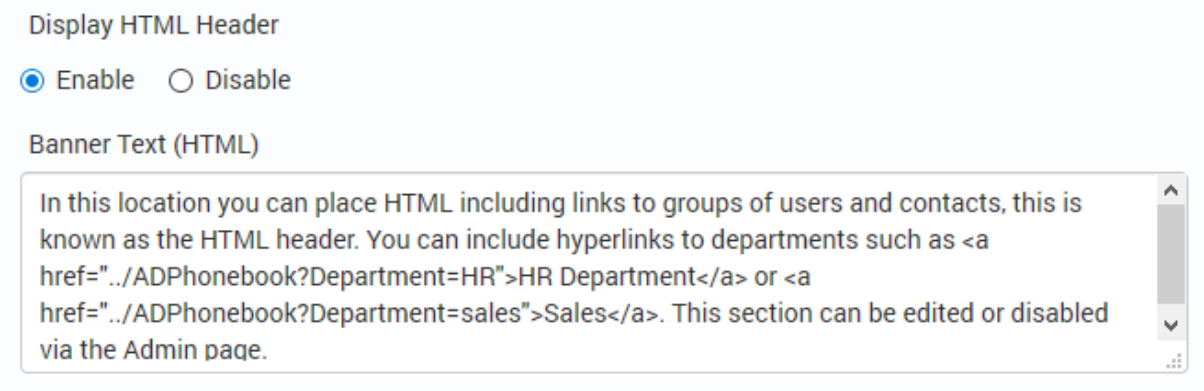
Footer Text (HTML)

You can add text to display in the footer of the phonebook. You can use HTML here.

Display HTML Header

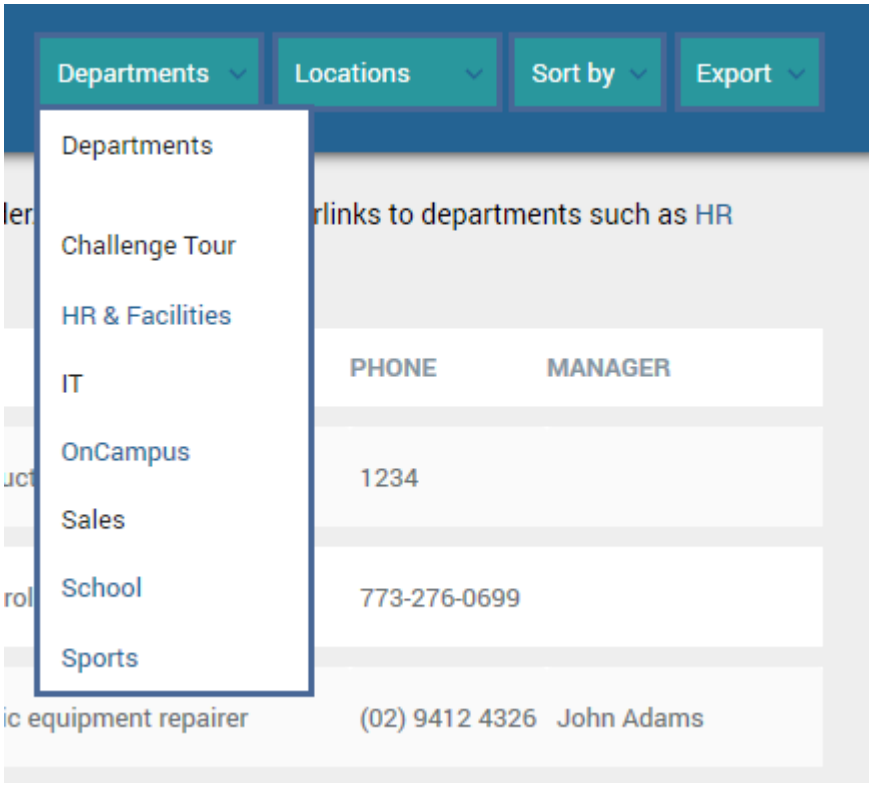
At the top of the phonebook beneath the header is a section of text where you can add instructions or links to other users or external pages. The HTML Header can be disabled if you would rather it not be there.





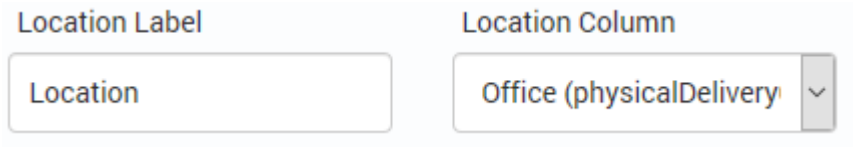
Display Department Filter

In the header is a filter named Department, the program reads the values found in the 'department' attribute and lists them here, this allows user to quickly locate users in the chosen department. You can remove this filter by setting this option to Disabled.



Display Location Filter

Like the option above, the Location filter allows users to filter users by office location, country or domain. You can specify which attribute is used for the filter under 'Location Column'.

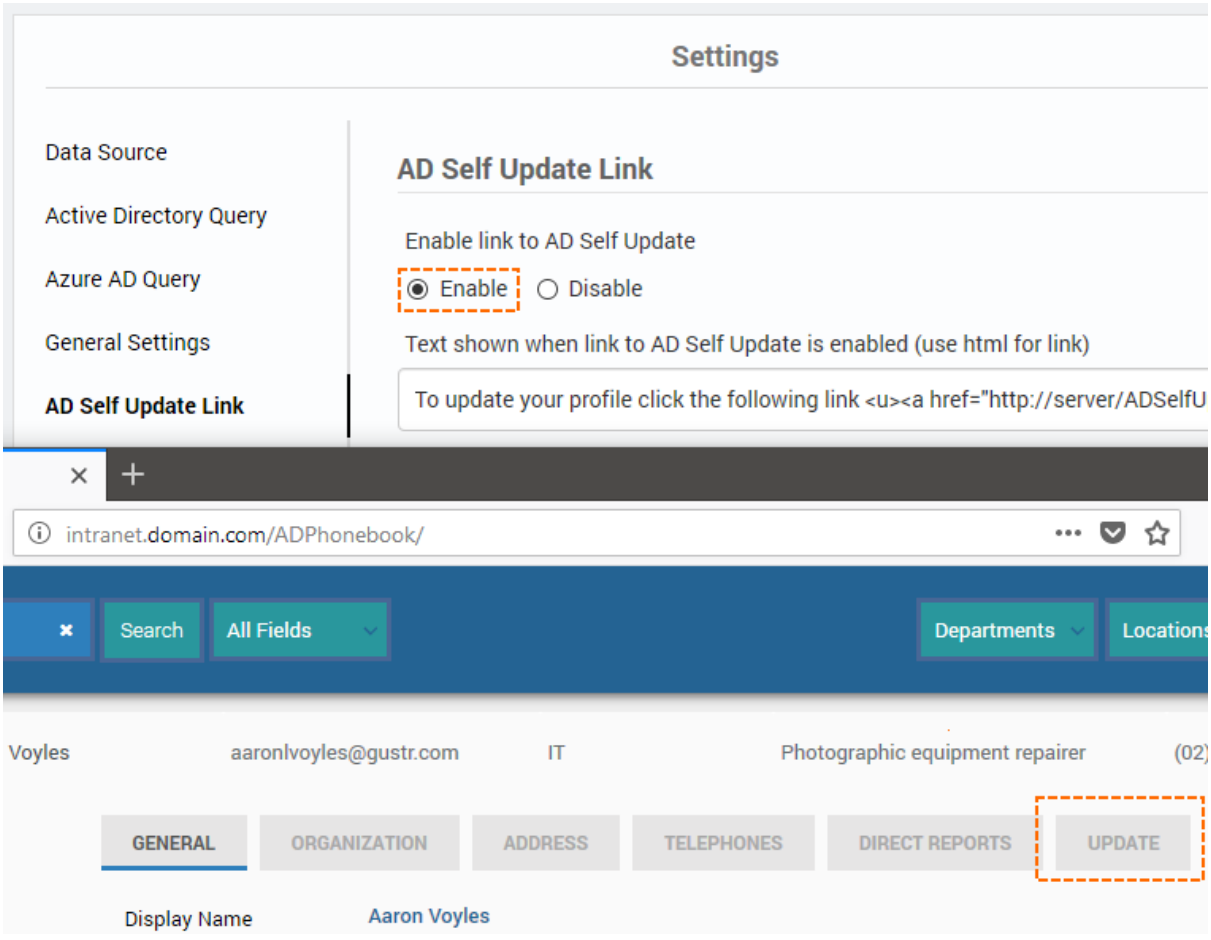


Use Local Fonts and jQuery

By default, the program will load fonts and jquery (JavaScript library) from Google, if your computers do not have internet access or you would rather fonts and jQuery is loaded locally choose this option.

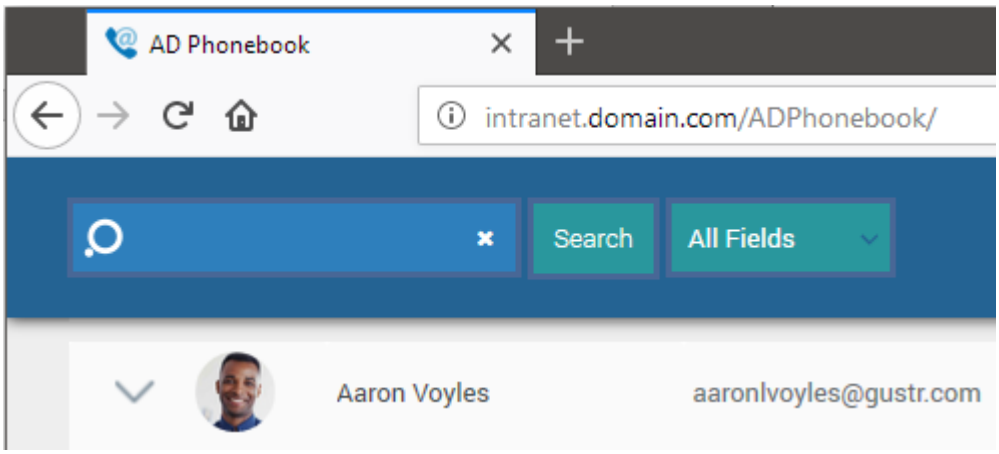
AD Self Update Link

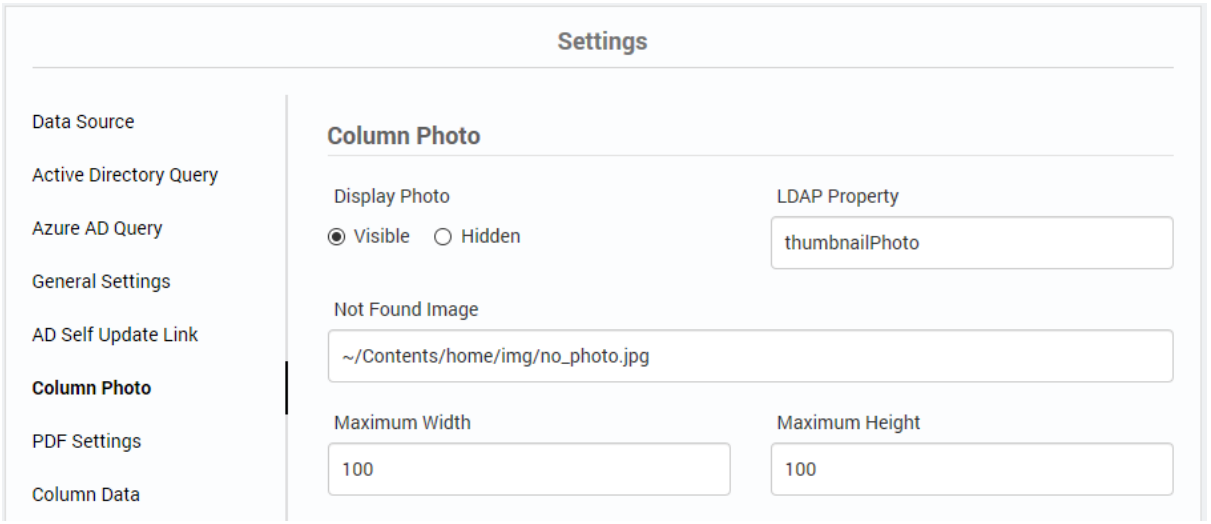
From this tab you can enable or disable the Update tab which is shown in the 'Details Section'. This is useful i you are using AD Self Update; your users can then update their own information using AD Self Update should they see information that is incorrect. This is disabled by default.



Column Photo

By default a user's photo is shown in the main grid, if you would prefer not to see the users photo you can disable this here.

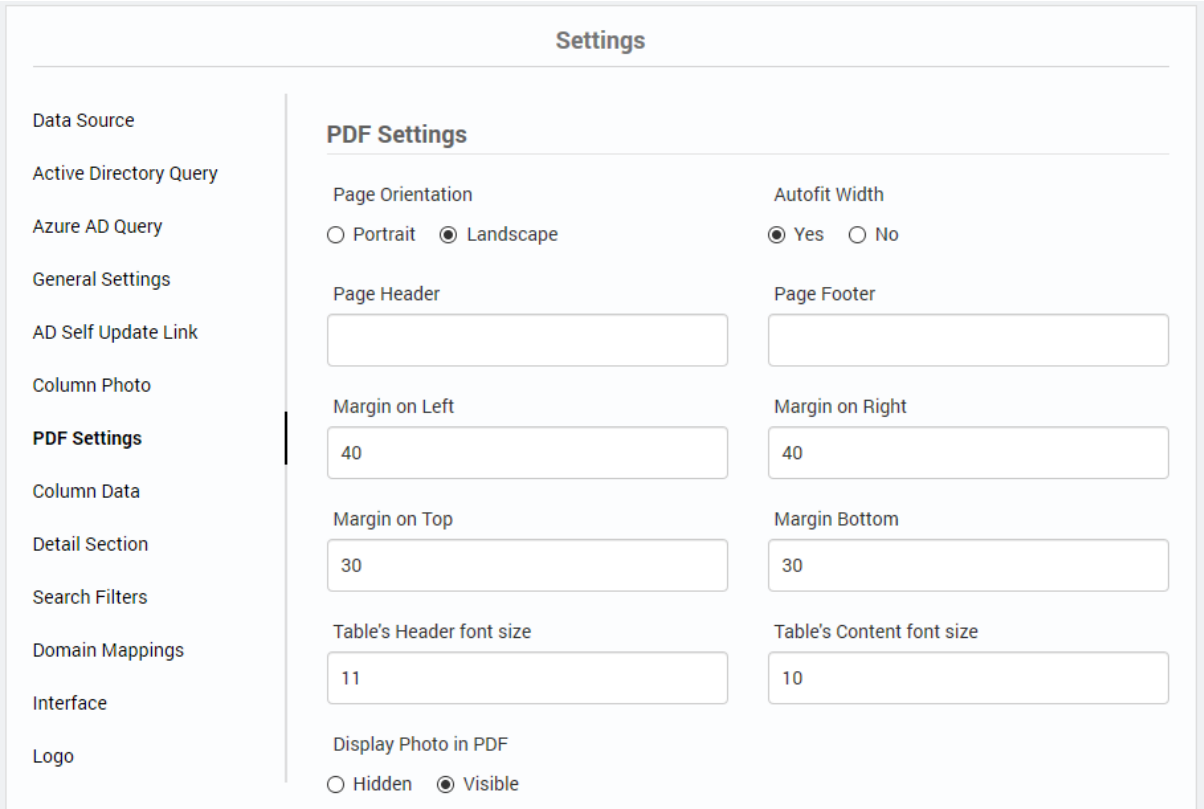




The photos are read from the thumbnailPhoto attribute in Active Directory, you can change this if needed. You can also change the size of the image that is shown in the phonebook, the default size is 100px x 100px, the photo is rendered round and scaled using css.

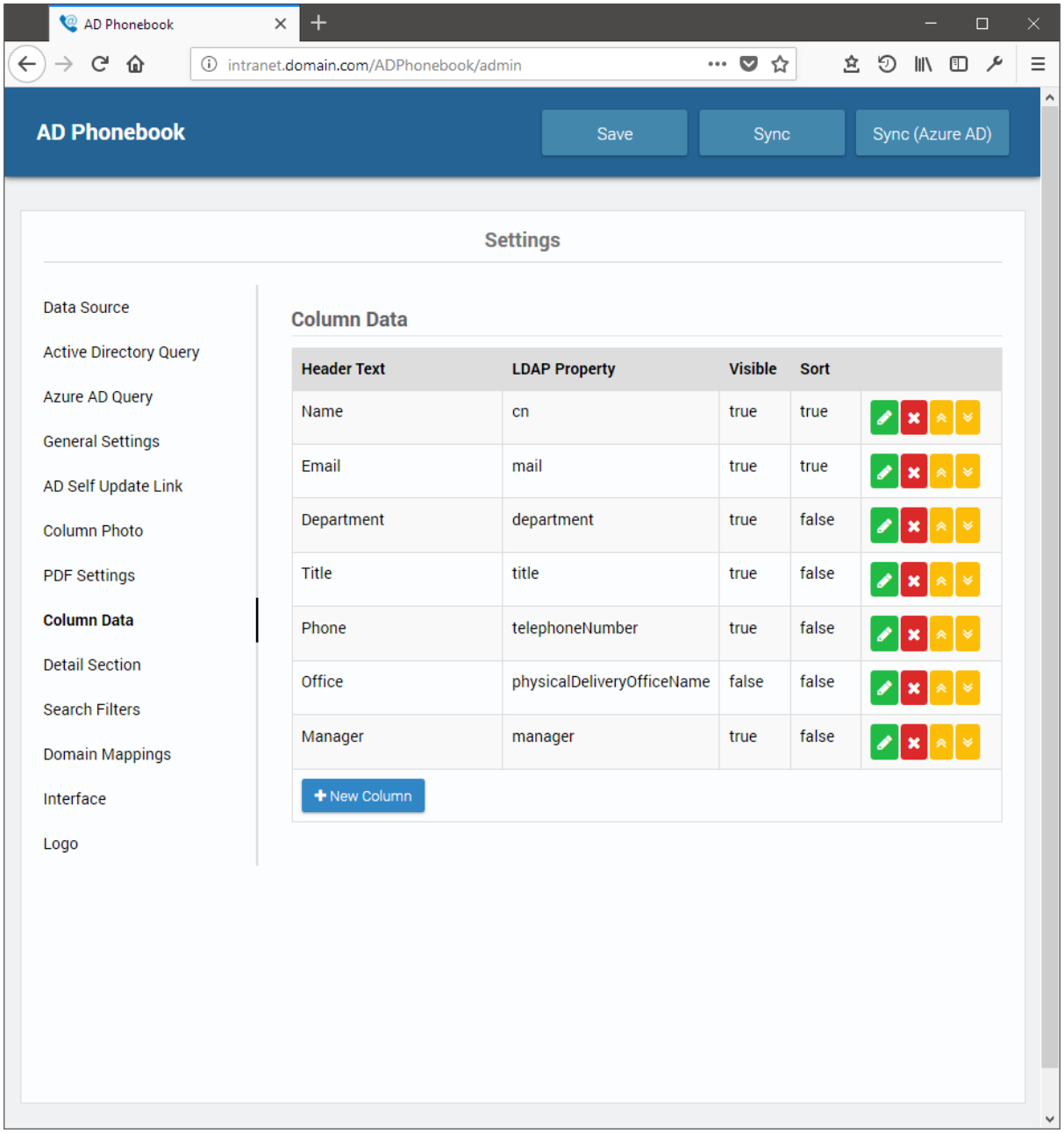
PDF Export Settings

There are a several options you can use when exporting to PDF. You can set the orientation of the page, landscape maybe better if you have more than five columns shown. The option 'Auto-Fit Width' will expand the columns to fill the page width. You add text you would like shown in the header and footer of the PDF to the header and footer sections. You can adjust the font size and change the margin size.



Column Data

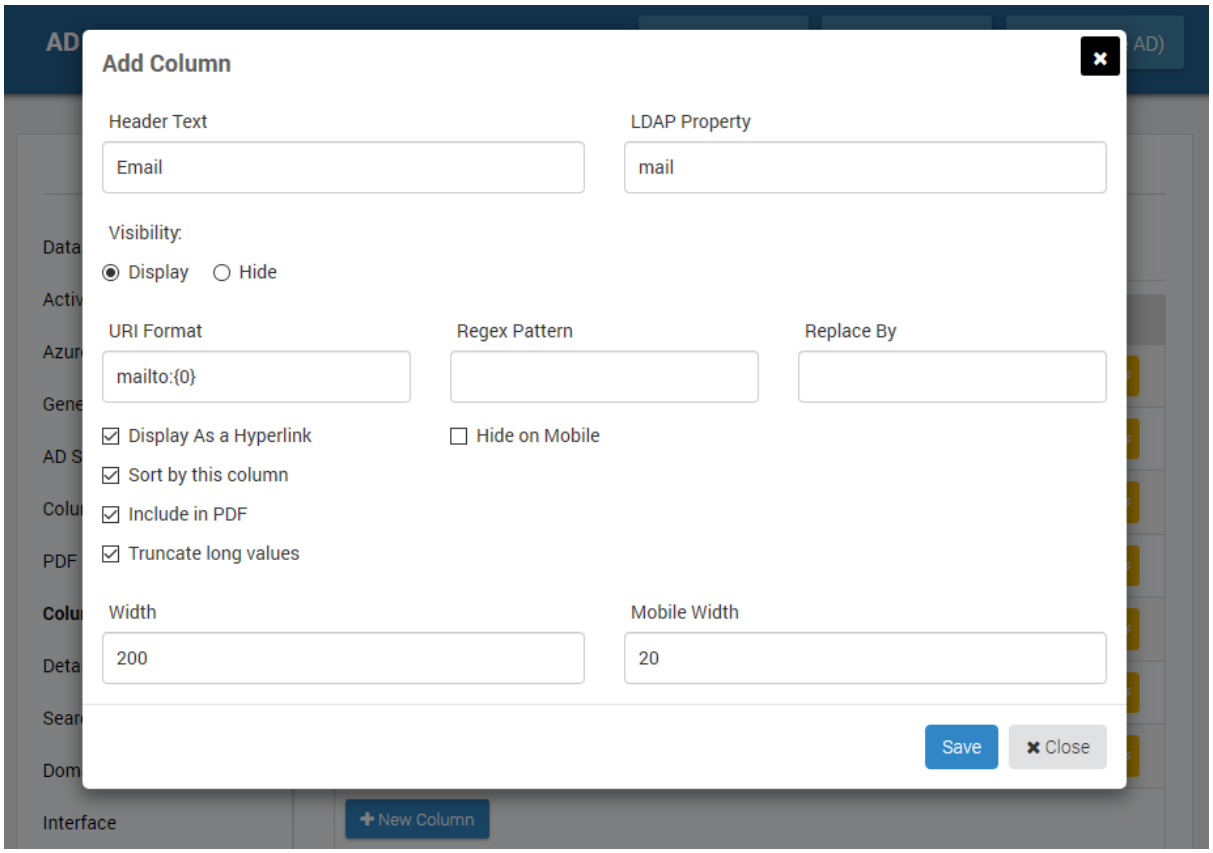
Column Data contains the column your users will see in the phonebook, by default the phonebook will display the columns listed below. In the Column Settings section you can add, remove or edit columns. You hide columns, specify which column the users will be sorted by, create hyperlinks and use regular expressions to format the values shown.



Clicking on the 'New Column' button will open the Edit column window, here you can add additional columns that will be shown in the main grid. Clicking on the edit button will allow you to edit existing columns.

Column Header Text and LDAP Property

Below is an example column, the Header Text can have any name you like but the LDAP Property must exactly match the Active Directory property name. For example you could have the 'Header Text' value read 'Car Parking Space' and the 'LDAP Property' could be 'extensionAttribute1'.



Visibility

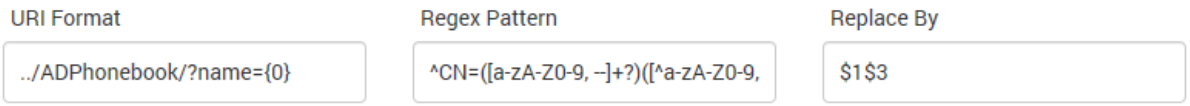
If you want to hide a column from view you can change the visibilty to Hide, alternatively remove the column. Hide can be helpful if you think you may use the column again in the future.

Hyperlinks

If you would like the column value to be a hyperlink check the Hyperlink check box and enter a protocol or scheme name e.g. mailto:{0} or tel:{0} . You can also use the URI text box to pass arguments in the URL for example the default manager column contains the URI value *../ADPhonebook/?name={0}* this is used to display the managers details when the managers name is clicked.

Regular Expressions

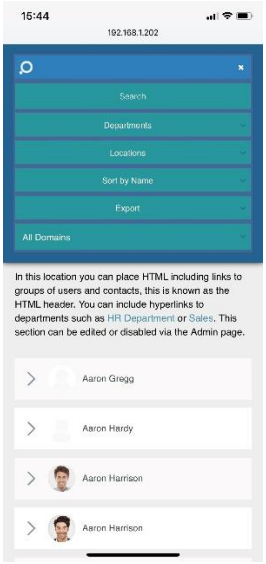
You can use regular expressions (abbreviated as Regex Pattern) to manipulate the displayed values. Certain attributes such as 'manager' contain the full LDAP path to the mangers user object (E.g. CN=John Smith,OU=Managers,DC=Domain,DC=Com), Regular Expressions can be used to remove the path and leave just the managers name (E.g. John Smith) which is easier to read. Regular expressions can be applied to any column/attribute by clicking the 'Edit' button for that column on the 'List Columns' tab.



Hide On Mobile

When the phonebook is viewed on a mobile device you'll want to hide some columns to make it easy to read due to the limited width on mobile devices. Use the hide on mobile check box to hide columns you don't want to show on mobiles, some of the default columns already have this checked. You can still see hidden values by adding them to the users details (clicking/touching the users name).

Example showing two columns on mobile, touch the row to view details on that user.



Sort by this Column

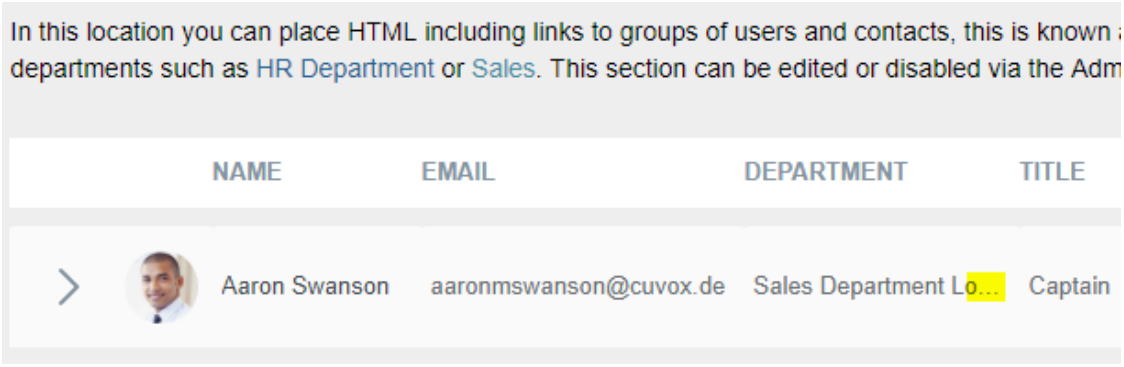
By default the main grid is sorted using the cn attribute (Name column), you can change this to another column by checking Sort by this column, ensure this is checked for one column only.

Include in PDF

If PDF export is enabled under ‘General Settings’ then your users can export a copy of the phonebook to PDF. Due to the constraints of the paper size and fonts sizes all the columns you see on screen may not fit in the exported PDF. To choose which columns are used in the PDF export, check or uncheck the ‘Include in PDF’ option.

Truncate long values

You may find certain columsn/attributes such as title or department contain long values, one users long job title may make the column unnecessarily wide meaning there isn’t room on the screen for other columns or other columns become squashed or the value overlaps to the line below. By checking Truncate long values the width of the column will be fixed and any long values will be truncated and … will appear after the displayed value to indicate the value is longer. The user can click the > to see more data on the contact and read the full value.

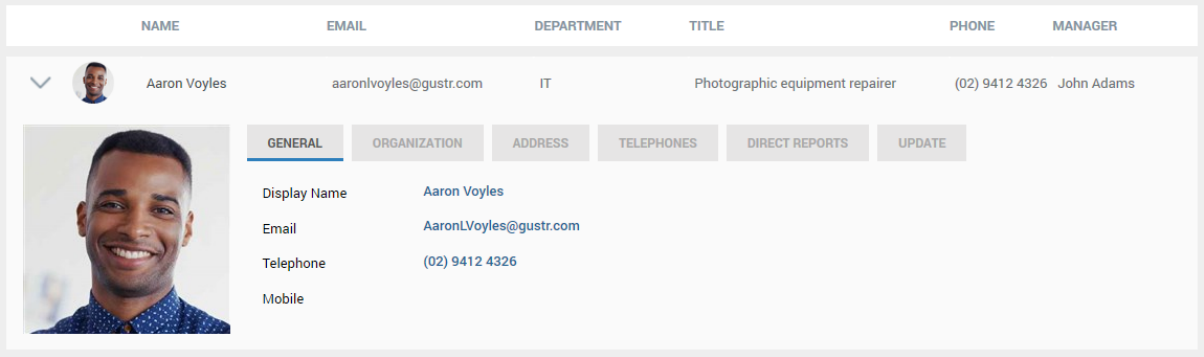


Width and Mobile Width

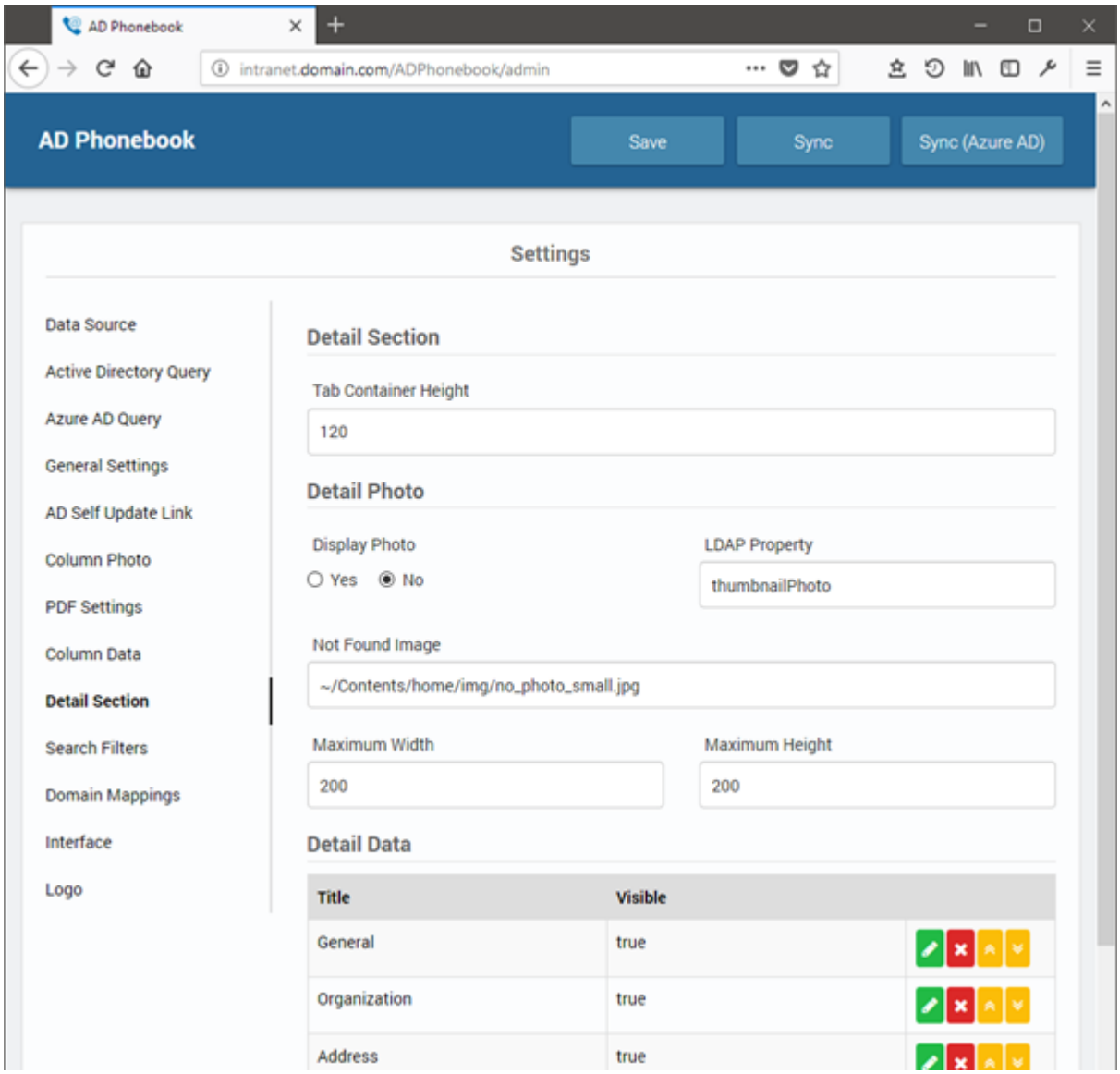
You can force one column to be a certain width and the others will adjust i.e. those with no value will expand or contract but the ones you define a fixed width will keep that width. Truncated or overlapping telephone numbers aren’t much use so you may want to fix the width of columns containing a phone number.

Details Section

When you click or touch a user’s name or the > symbol additional information (details) about the user are displayed. You can customize the tabs and the content shown on these tabs via the Details Section.



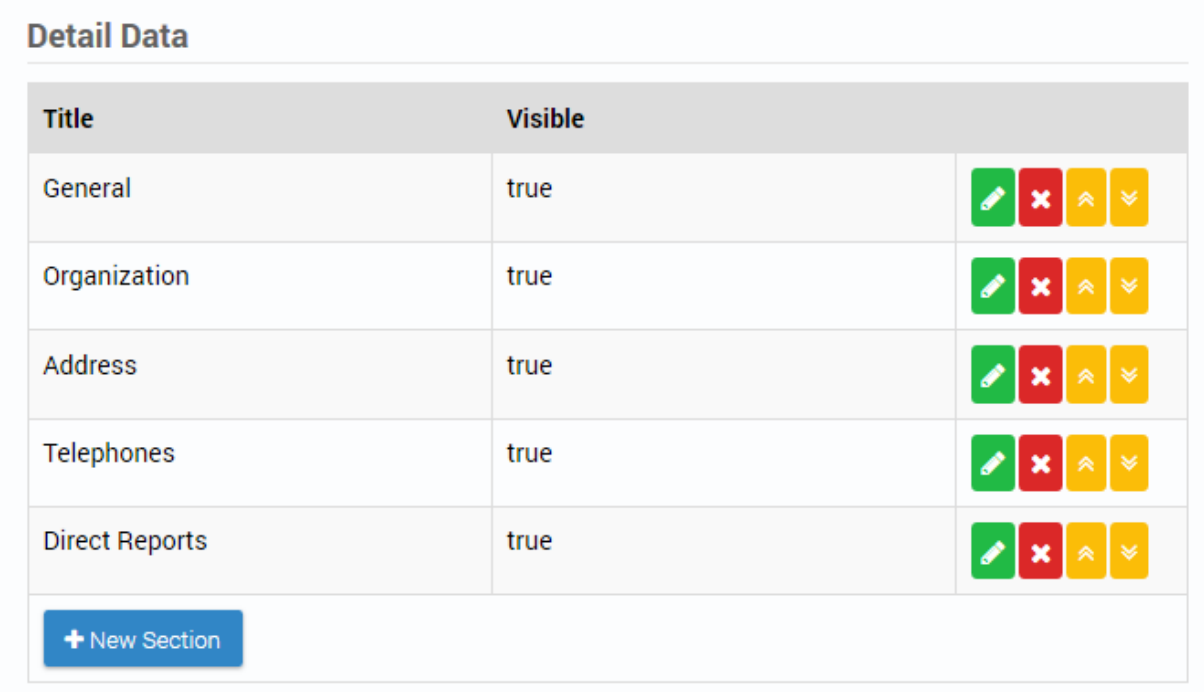
Above shows the 'Details Section' as your users see it after the > is clicked.



Detail Data

You can add and remove fields from the details section like you can with the Column Data. On the Details Section tab you will see 'Detail Data', the values shown in the grid relate to the tabs your users will see. Tabs can be added, edited or removed.

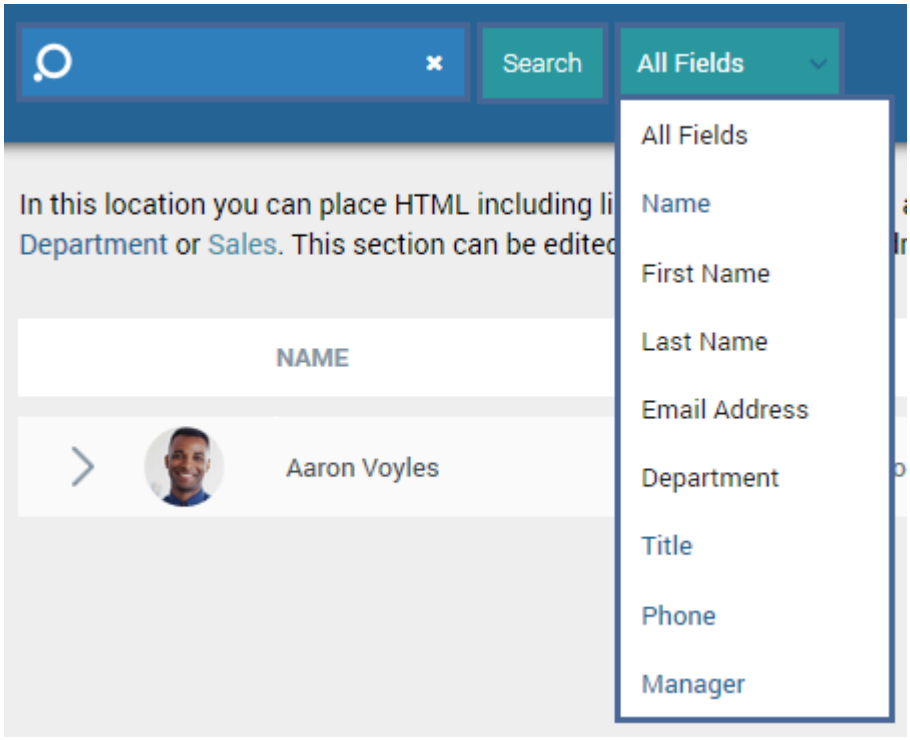
Clicking on the 'New Section' button will open a new window, here you can add additional tab(s) that show next to the existing tabs. Clicking on the New Row button will allow you to add new row/attribute.



You can change the order the tabs appear by using the arrows.

Search Filters

In the header next to the search box is a drop down menu of fields a user can search within. If non are selected all fields are searched. To add or remove items from this list use the Search Filters tab.



The search is performed against the database, for the search filters to work the filters added need to also appear in the Columns Data section and a Sync needs to have taken place.

Domain Mappings

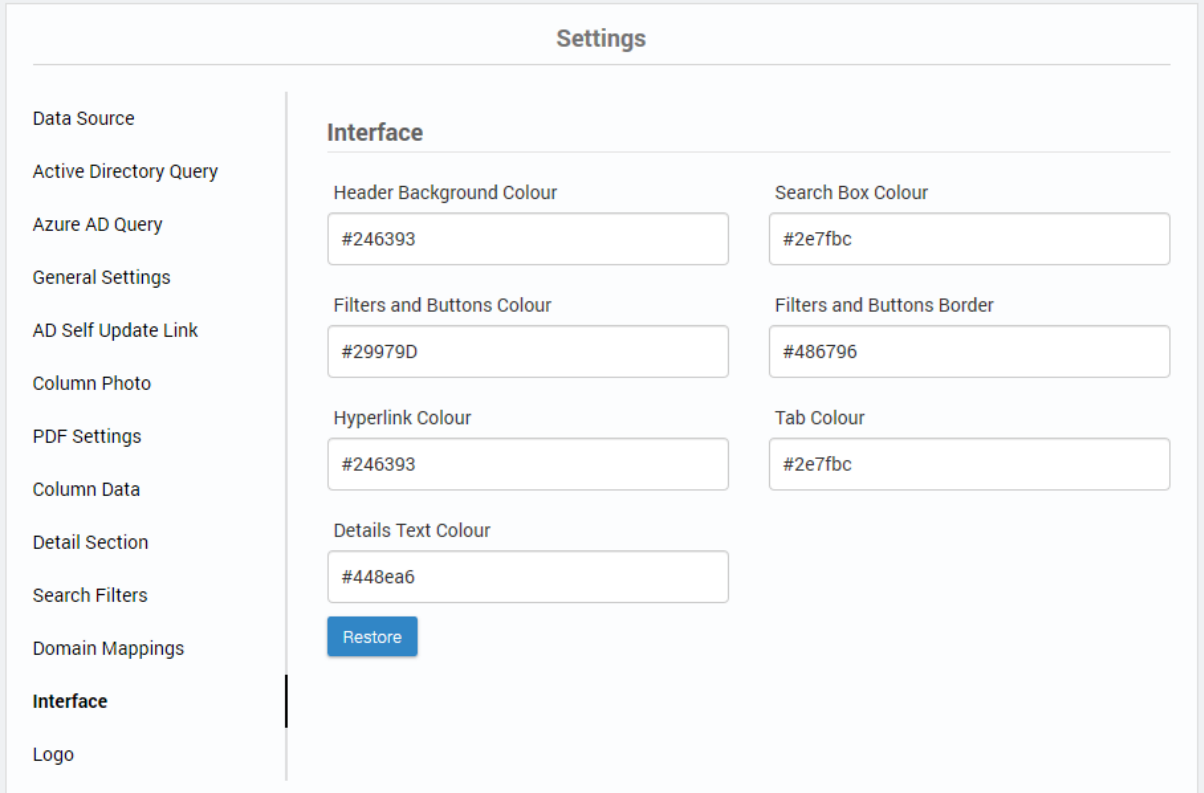
If you have more than one domain and you have the domain drop down box shown you can assign a friendly name to each domain.

For example instead of users seeing *miami3.internal.net* they can see *Miami Office* (or similar).

Interface and Logo

You can customize the colours used in the phonebook via the Interface tab, the colour values is a hexadecimal colour value. Click the Restore button to restore the original default colours.

Add logo can be added via the Logo tab, the logo size needs to be 160px x 70px.



Using HTTPS and SSL Certificates

Whilst the phonebook will work perfectly using HTTP its best practice when a web site contains sensitive data to install an SSL certificate and access the site using HTTPS. A SSL certificate can be added to the web site (normally Default Web Site) via IIS. There are many documents and videos on the web showing how to add a SSL certificate and enable HTTPS in IIS (Internet Information Server).

Querying the phonebook via a URL

The AD Phonebook can take queries passed via the URL, you can query any of the columns that are being displayed in the phonebook. The url should be followed by a question mark then the column name and the value you want to search for. You can combine two or more using &.

e.g. http://server/adphonebook?columnName=value

Below are a few examples:

http://server/adphonebook**?department=sales**

http://server/adphonebook**?department=sales&title=manager (& AND operator)**

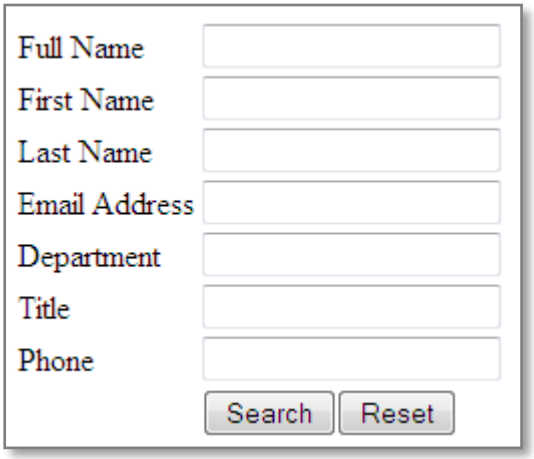
http://server/adphonebook**?title=supervisor|title=manager (| OR operator)**

Querying the phonebook from other web pages

The AD Phonebook can take queries passed from another web page such as an intranet page. Below is an example html form that will query the phonebook. Form elements can be added or removed.

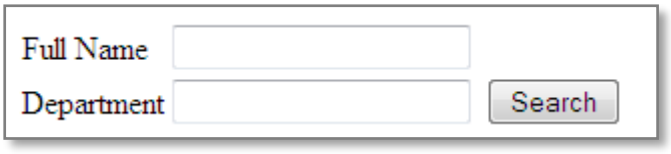
Example

```
<html>
<head>
  <title>Example</title>
</head>
<body>
        <form action="/adphonebook" method="get">
          <table>
            <tr><td>Full Name</td><td><input type="text" name="Full Name" /></td></tr>
            <tr><td>First Name</td><td><input type="text" name="First Name" /></td></tr>
            <tr><td>Last Name</td><td><input type="text" name="Last Name" /></td></tr>
            <tr><td>Email Address</td><td><input type="text" name="Email Address" /></td></tr>
            <tr><td>Department</td><td><input type="text" name="Department" /></td></tr>
            <tr><td>Title</td><td><input type="text" name="Title" /></td></tr>
            <tr><td>Phone</td><td><input type="text" name="Phone" /></td></tr>
            <tr><td></td><td><input type="submit" value="Search" />
                <input type="reset" value="Reset" /></td>
            </tr>
          </table>
        </form>
</body>
</html>
```



Simple example

```
<html>
<head>
   <title>Example</title>
</head>
<body>
<form action="/adphonebook" method="get">
   <table>
      <tr><td>Full Name</td><td><input type="text" name="Full Name" /></td></tr>
      <tr><td>Department</td><td><input type="text" name="Department" /></td>
      <td></td><td><input type="submit" value="Search" /></td>
      </tr>
   </table>
</form>
</body>
</html>
```



Help and Support

If you require any help installing or configuring AD Phonebook contact support@dovestones.com.