DIRECTORY SEARCH V2.0
Quick Start Guide

Directory Search is an easy-to-use, customizable, Web-based utility that allows you to turn your Active Directory in to a company phone book. The administrator can enable search options and specifies which fields are visible to the end user.

This document is intended to provide you with a quick reference for getting started Directory Manager.

Tips

Here are some tips and information that will make your work with Directory Search easier and more trouble-free.

- Anonymous authentication is enabled by default.
- Almost all customization and configuration is performed in one of three XML files found in the c:\inetpub\wwwroot\directory
- Most all customization and configuration is performed in one of these XML files found in the `c:\inetpub\wwwroot\DirectorySearch\Settings`
  - `DirectorySettings.XML` contains the field/attribute configuration such as which fields show up on the View interface, which fields are hidden, drop-down list values, etc...
  - `AppSettings.XML` allows you to customize the search options, window labels, error/help messages, and narrow the scope of a search to a single OU.
- Get yourself a good XML editor; that will make editing the XML files much more painless. We recommend Notepad++; a very good and free text editor. http://notepad-plus.sourceforge.net
- Always make backup copies of your XML files.
- You can install the evaluation version and later run the Configuration utility to add a license key so that it no longer expires.
- Browsers supported are Internet Explorer 8-11, Firefox 15.x and later, and Google Chrome.

Prerequisites

Make sure that your server meets all of the prerequisites and your installation will go much more smoothly.

- Windows Server 2003 requirements – **Manual installation required.**
  - Windows Server 2003 with SP1 or later
  - IIS Web service installed

Ithicos Solutions

http://www.ithicos.com

- o Microsoft .NET Framework v4.0 installed
- o Server must be a member of the domain/forest
- o In IIS Manager under Web Service Extensions, make sure that ASP.NET v4. is visible and Allowed
- o Apply all Microsoft critical and recommended updates
- Windows Server 2008 requirements
  - o Windows Server 2008 / Windows Server 2008 R2
  - o IIS 7 / IIS 7.5 web service enabled
  - o IIS 6 compatibility components of IIS 7 enabled
  - o ASP.NET enabled and .NET Application support enabled
  - o .NET Framework 4.0 installed
  - o Apply all Microsoft critical and recommended updates
  - o Basic and Windows Authentication services must be enabled
- Windows Server 2012 requirements
  - o Windows Server 2012/ Windows Server 2012 R2
  - o IIS 8 / IIS 8.5 web service enabled
  - o IIS 6 compatibility components of IIS 8 enabled
  - o ASP.NET enabled and .NET Application support enabled
  - o .NET Framework 4.0 components enabled
    Basic and Windows Authentication services must be enabled
- Apply all Microsoft critical and recommended updates
- Have a domain user account that is also a member of the IIS Server's local Administrators group to do the installation
- If User Access Control (UAC) is enabled, you may need to run the installer from the command prompt, such as this:
  - o msiexec.exe /i c:\directorysearch.msi
- Download the latest version of the Directory Search software from our Web site.

> We strongly recommend that you run Microsoft Update on the server prior to installing Directory Search to ensure that all updates and fixes available from Microsoft have installed.

Using Secure Sockets Layer (SSL)

We recommend that you implement Secure Sockets Layer (SSL) for any web site on which end users will enter private/personal data or on which a username / password may be passed over the network. All web-based Ithicos Solutions products will work on SSL-enabled web sites.

There is nothing you need to do to our products to enable SSL. This is done in Internet Information Server (IIS).

Ithicos Solutions
http://www.ithicos.com

We recommend using a certificate authority that will be trusted by the browsers of all users. It is a very bad practice to get users in the habit of ignoring SSL security warnings.

Installation

Installation is usually simple and quick though the software will be installed with the default XML templates and you will need to customize these for your organization.
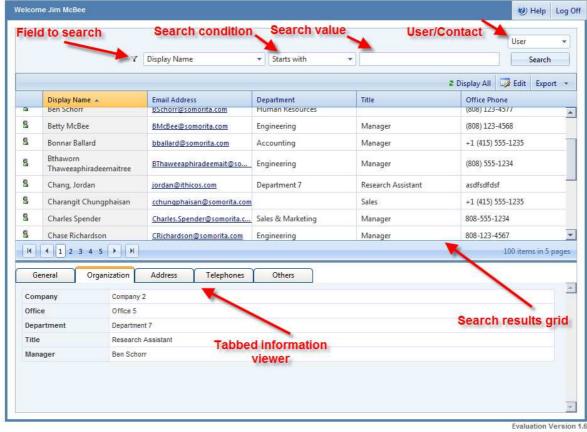
1. Run the **DirectorySearch.MSI** installer
   a. Alternately, copy the installer to a folder, such as C:\temp
   b. Open a command prompt using "Run As Administrator"
   c. Run   **msiexec.exe /i c:\temp\DirectorySearch.msi**
2. On the welcome screen click "Next" and then on the License Agreement screen, agree to the license and click "Next."
3. On the Select Installation Address, You can take most of the defaults for the installer including the default virtual directory name (**/DirectorySearch**) and putting the site on to the Default Web Site.
4. On the Destination Folder screen, click Next if you want the default path or specify a new path for the software. The default is c:\inetpub\wwwroot\DirectorySearch which works for most installations.
5. On the Active Directory Information screen, enter the domain controller name, the domain name, the service account information, and the service account password. Make sure you use the host (or short name) of the domain controller.
   Enter the organization name and the license key (or check evaluation version) and then click Next. (Hint: You can run the Configuration wizard later and add a license key.)

6. On the Ready To Install Directory Search screen, click Install.

7. The installer will run for 20 to 30 seconds. When the installer completes, click Finish.

9. After the installation completes, immediately test the installation with the default settings. From the server's console, you can open up the web browser and type http://localhost/DirectoryUpdate
9. Now that the install is completely, customize the XML files to suit your organization. Always make a good backup of your XML files before customizing.

Ithicos Solutions

http://www.ithicos.com

Directory Search Interface Overview

The Directory Search and Directory Manager interface are very similar and consists of two distinct components. The first is the search screen:

The Directory Search interface does not have a "Edit" button but rather has a "View Details" button.

While there are many configurable elements on the search screen, the ones of importance include:

- The search options which includes the fields available to search, the search conditions (Starts With, Ends With, Equals…), and the actual value to search.
- The user/contact drop-down box displays the types of objects to show in the search list: users, contacts, or both
- The search results grid including the columns configured to display in the search grid.
- The tabbed viewer that displays properties of the currently selected object in the search grid. Note that the tabbed viewer does NOT permit editing of the selected object. You must double-click on the object or select the object and click Edit.

Ithicos Solutions

http://www.ithicos.com

Note that most of the search screen is controlled and customized through the AppSettings.XML file.

The second part of the Directory Search user interface that is noteworthy is the edit screen. The edit screen is mostly customized in the DirectorySettings.XML file; from that file, you can specify which fields are visible and which are hidden.

Customization Quick Reference

Customizing the Directory Search interface for your specific requirements is reasonably simple once you have taken a look at the XML files that store the configuration and if you get yourself a good XML editor. The XML files are all found in the following folder:
`C:\inetpub\wwwroot\DirectoryUpdate\Settings`

There are two primary configuration files available to you for Directory Search:

> **DirectorySettings.XML** – Controls the user interface, which fields are visible, which fields are editable, field labels, validation rules, dropdown lists, etc…
>
> **AddressSettings.XML** – Allows a user to populate multiple values, such as street address, city, state, country, postal code, by selecting a single value such as an office name.

Customizing the Search Options and Search Results Grid

The attributes on which we allow searching and the columns shown in the search results grid are the defaults that we have found work best for most of our customers but they may not be ideal for your organization. This can be changed via the AppSettings.XML file. Locate the **userList** section of that file; within that section is a tag called **<columns>**. Under the <columns> section, there is a tag for each attribute on the interface. This section is shown in the screen capture below.

```
    <userList maxResults="100" pageSize="20" sortBy="displayName" showOnlyExchangeEnabledUsers="no"
showDisabledUsers="no" showInitialResults="yes" showDetailPanel="yes">
    <columns>
        <personalTitle          headerText="Personal Title"     visible="no"  filter="no"  export="no"  />
        <firstName              headerText="First Name"         visible="no"  filter="no"  export="no"  />
        <initials               headerText="Middle Initials"    visible="no"  filter="no"  export="no"  />
        <middleName             headerText="Middle Name"        visible="no"  filter="no"  export="no"  />
        <lastName               headerText="Last Name"          visible="no"  filter="no"  export="no"  />
        <nameSuffix             headerText="Name Suffix"        visible="no"  filter="no"  export="no"  />
        <displayName            headerText="Display Name"       visible="yes" filter="yes" export="yes" />
        <email                  headerText="Email Address"      visible="yes" filter="yes" export="yes" />
        <userName               headerText="User Name"          visible="no"  filter="yes" export="no"  />
        <company                headerText="Company"            visible="no"  filter="no"  export="no"  />
        <office                 headerText="Office"             visible="no"  filter="no"  export="no"  />
        <division               headerText="Division"           visible="no"  filter="no"  export="no"  />
        <department             headerText="Department"         visible="yes" filter="yes" export="yes" />
        <departmentNumber       headerText="Department #"       visible="no"  filter="no"  export="no"  />
        <title                  headerText="Title"              visible="yes" filter="yes" export="yes" />
        <employeeId             headerText="Employee ID"        visible="no"  filter="no"  export="no"  />
        <employeeNumber         headerText="Employee #"         visible="no"  filter="no"  export="no"  />
        <employeeType           headerText="Employee Type"      visible="no"  filter="no"  export="no"  />
        <manager                headerText="Manager"            visible="no"  filter="yes" export="no"  />
        <assistant              headerText="Assistant"          visible="no"  filter="no"  export="no"  />
        <secretary              headerText="Secretary"          visible="no"  filter="no"  export="no"  />
        <officePhone            headerText="Office Phone"       visible="yes" filter="yes" export="yes" />
        <otherOfficePhone       headerText="Other Office Phone" visible="no"  filter="no"  export="no"  />
        <fax                    headerText="Office Fax"         visible="no"  filter="no"  export="no"  />
```

Let's take as an example the department field/attribute:

```
<department headerText="Department" visible="yes"
filter="yes" export="yes" />
```

- The headerText option sets the label for the column.
- *Visible="yes"* shows the field in the columns listing
- *Filter="yes"* allows to you search by the attribute
- *Export ="yes"* allows this attribute to be exported to a Excel spreadsheet or text file.

Maximum Users Returned

Directory Search's seach interface was designed specifically to 'search' for users rather than to allow someone to browse through hundreds or thousands of user accounts. You may have noticed that the default search as well as any other search you do in Directory Search returns a maximum of 100 search results. This is by design so that we don't overwhelm a domain controller with too many LDAP search requests. This filtering feature as well as several other filter features is configurable in the **userList** tag found in the AppSettings.XML file. Simply change the **maxResults** option found in the **userList** tag.

```
<userList maxResults="100" pageSize="20"
sortBy="displayName" showOnlyExchangeEnabledUsers="no"
```

Ithicos Solutions

http://www.ithicos.com

```
showDisabledUsers="no" showInitialResults="yes"
showDetailPanel="yes">
```

The **userList** tag also allows you to filter out users that are not "mail-enabled" (if you use Exchange, and to filter out disabled users.

The Directory Search interface was designed to "search" for users more than it was designed to "browse" through hundreds or thousands of user accounts. This is partially because of the protocol we use to query Active Directory (LDAP). If you want to display more than 1,000 users in a single search, you will need to also update the maximum search result size that Active Directory will return to an LDAP client. This is done by using the NTDSUTIL.EXE command. See this link for more information:
http://support.microsoft.com/kb/315071

Ithicos Solutions
http://www.ithicos.com