MATCH IT! Antibody v1.3
Software Installation

Table of Contents

2.0 Revisions

Date	Author	Revision	Description
11/28/20166	J. Cherry-Woods	0	Creation
01/10/2017	J. Cherry-Woods	1	CR15952
03/31/2017	S. Bettencourt	B	Update Installation Instructions to include Database Update AbV1.3_V1
06/12/2017	S. Bettencourt	C	Update install instructions to include additional instructions for Database Update AbV1.3_V1

3.0 Installation Checklist

Prior to installing MATCH IT! ANTIBODY v1.3 determine the following:

1. Verify the following:

    - Confirm the computer has 4GB of RAM.
    - Confirm user has full administrative rights on the computer.
    - For upgrading existing systems, make sure:
        a. If Antibody is already installed, make sure it is at version 1.2.1 prior to installing MATCH IT! Antibody v1.3.
        b. If DNA is already installed, make sure it is at version 1.2.X or greater prior to installing MATCH IT! Antibody v1.3.

2. Decide what database configuration is required.

    - Server based – pg5
    - Dedicated workstation – pg7
    - Luminex system – pg9

******Please note: MATCH IT! Antibody v1.3 will not install on Windows XP.******

If you have any questions about the Installation Process please contact Technical Support for assistance.

4.0 Prerequisites

Installation process will install these prerequisites as required.

- Microsoft SQL Server 2012
- Microsoft .NET Framework 4.5.2
- Microsoft SQL Server 2012 Management Objects
- Microsoft System CLR Types for SQL Server 2012

5.0 Database Configuration Options

Immucor's MATCH IT! product supports a number of different network topologies allowing it to be configured to meet the needs of the network and IT policies.

1. Server Based Installation - Recommended

The configuration assumes that the IT department has a dedicated server running Microsoft SQL Server 2008 Standard edition or above.

Immucor will provide the database administrator a database as an .mdf file for attachment and instructions for setup of the database user.

Pros for this configuration

- Database Server will be more efficient in processing data compared to a standard desktop database.
- IT typically backs up their database systems nightly.
- More stable configuration for the system as a whole.
- Database size is only limited by the amount of space available on hardware.

Cons for this configuration

- Additional cost for Microsoft SQL Server if IT does not already have a dedicated Server.

Note: MATCH IT! requires a **evosa** login which is the dbowner for the MATCH IT! database. MATCH IT! uses lifematch#1 as the default password for evosa. The password can be changed and after connecting to Database Management, there will be a prompt to enter the evosa password.

Figure 1:
Server Based Installation – Recommended

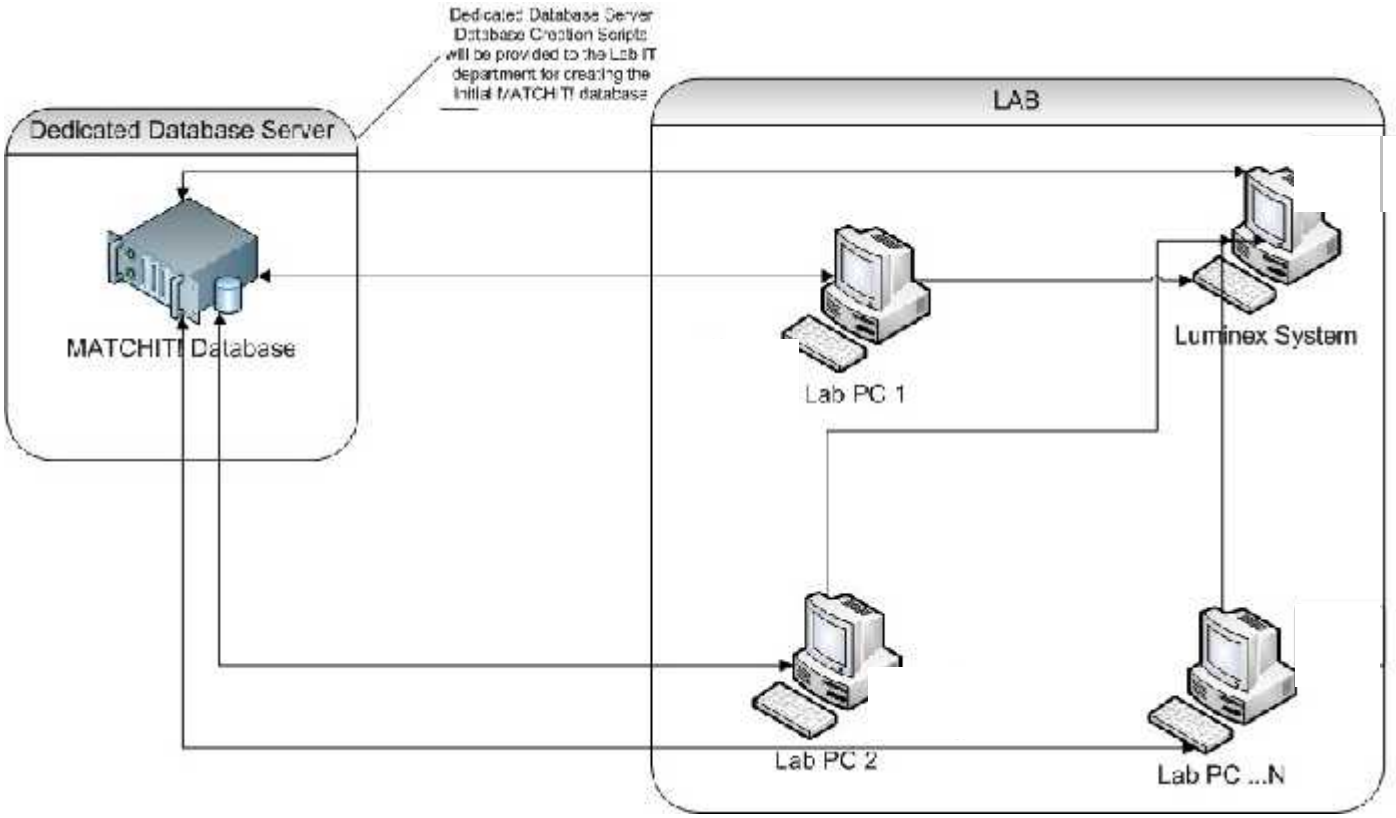


Figure 1: Server Based Installation

Dedicated Database Server – MATCH IT! database is created on server using a script provided to IT department.
Lab PC 1, 2, N - Only the MATCH IT! client is required on Lab PCs. Each PC connects to the MATCH IT! database on dedicated server.
Luminex System(s) – LIFECODES Services is required for auto batch processing. The MATCH IT! client is optional on this machine.

Notes:
Connection between Lab PC(s) and Luminex System is over TCP/IP.

If the Luminex System has a firewall running, port 7575 must be opened for communication between Lab PC(s) and the Luminex system(s).

2. **Dedicated Desktop PC Installation**
   The configuration assumes the Lab has a dedicated Desktop machine that will be used as the main SQL Server 2012 Express server.

Pros for this configuration

- Less cost than a dedicated database server (SQL Server 2012 is free from Microsoft)
- Better option than using Luminex system as the database server if a dedicated database server is not available.

Cons for this configuration

- System does not function optimally when a database has grown to 6GB
- Limited Database size of 10 GB.
- SQL Server 2012 would require intervention to create nightly backups
- System performance could degrade as the system is database dependent

Note: Software does not function optimally when a database has grown to 6GB. It is recommended that a new database is created.

Figure 2:
Dedicated Desktop PC Installation

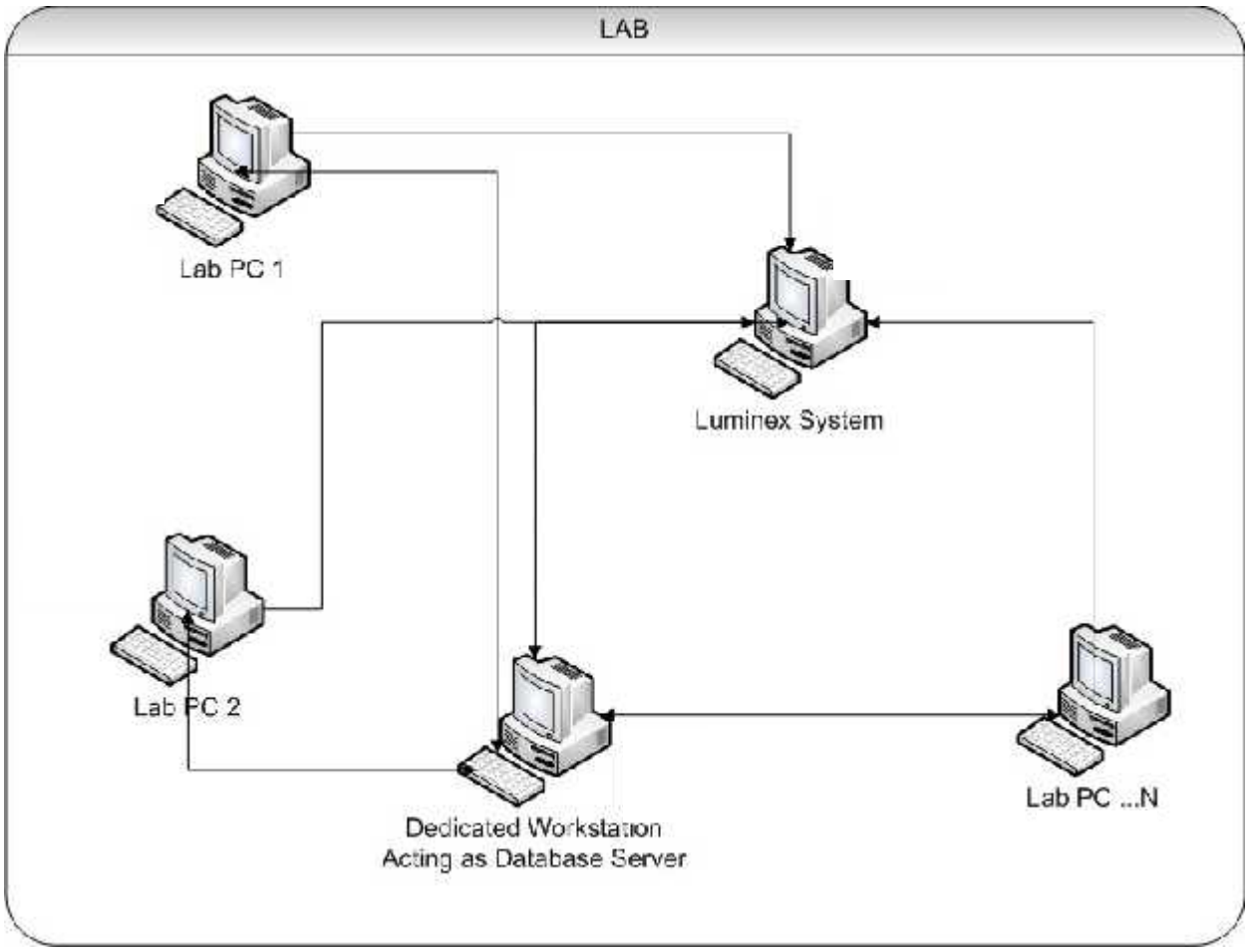


Figure 2: Dedicated Workstation Database

Dedicated PC Workstation – Full database installation of MATCH IT! is required. **Lab PC 1, 2, N** - Only the MATCH IT! client is required on Lab PCs. Each PC connects to the MATCH IT! database on dedicated PC workstation. **Luminex System(s)** - LIFECODES Services is required for auto batch processing. The MATCH IT! client is optional on this machine.

Notes:
Connection between Lab PC(s) and Luminex System is over TCP/IP.
If the Luminex System has a firewall running, port 7575 must be opened for communication between Lab PC(s) and the Luminex system(s).

3. Luminex System with MATCH IT! Database (Not recommended for high volume)

The configuration assumes the Lab is using the Luminex System or another client system to house their main MATCH IT! database.

This installation requires the full MATCH IT! database for the Luminex system. This will be accomplished in Step 5 of Section 6.

Pros for this configuration

- no cost as Luminex system is already available

Cons for this configuration

- System performance could degrade as now both the MATCH IT! Database and the Luminex Database are both on the same system contend for resources.
- User intervention required for nightly backups.

Note: Software does not function optimally when a database has grown to 6GB. It is recommended that a new database is created.

Figure 3:
Luminex System with MATCH IT! Database
(Not recommended for high volume)

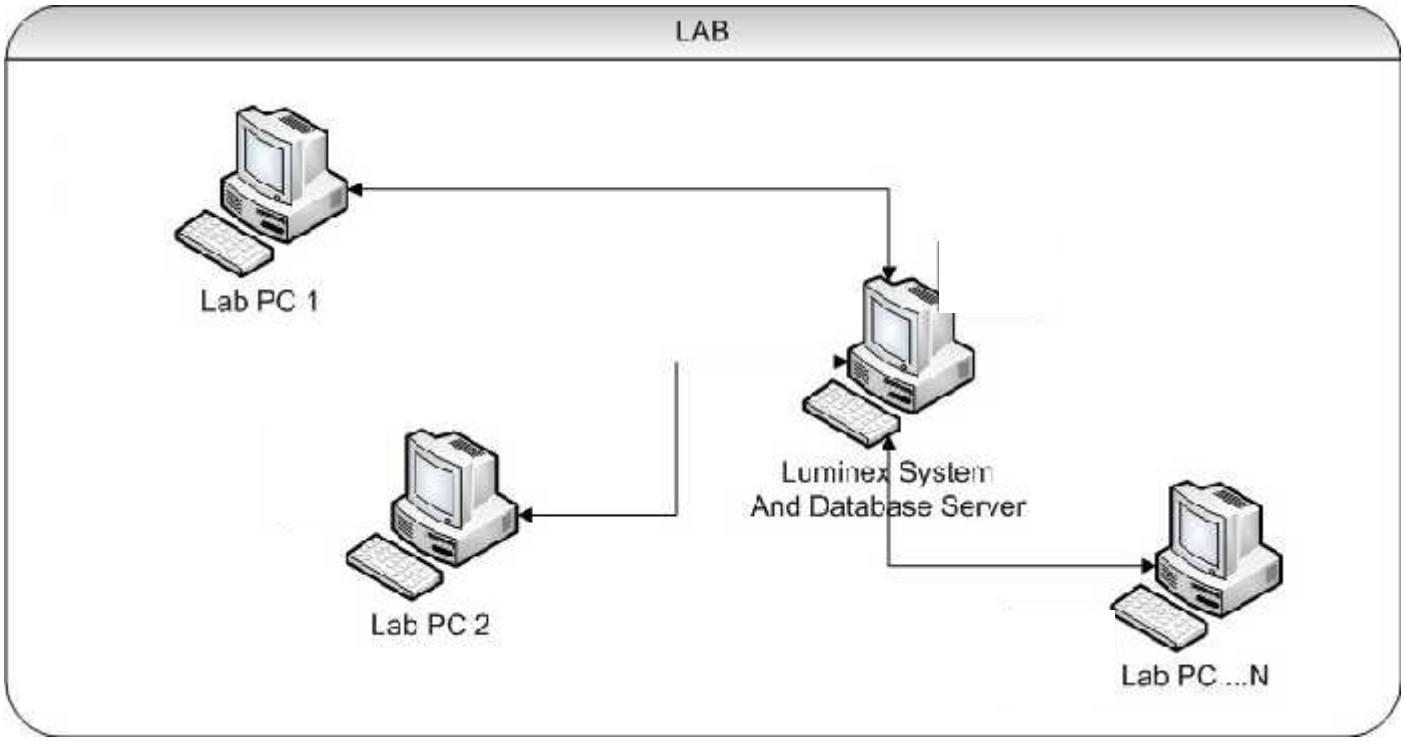


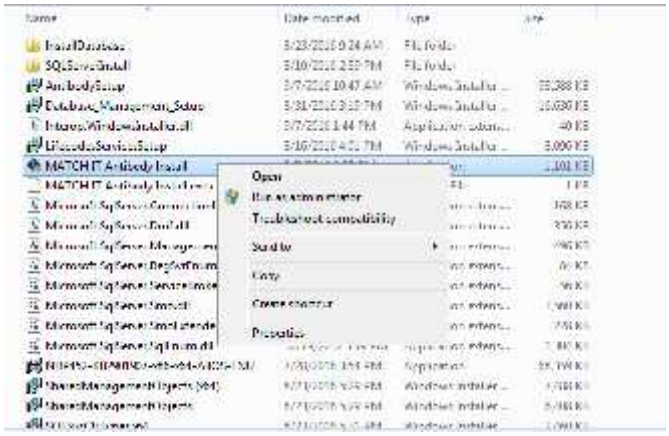
Figure 3: Luminex or other client computer serving as Database Server.

Lab PC 1, 2, N – Only the MATCH IT! Client is required on Lab PCs. Each PC connects to the MATCH IT! database on Luminex PC.
Luminex System(s) – Full installation of MATCH IT! is required. LIFECODES Services is required for auto batch processing.

Notes:
Connection between Lab PC(s) and Luminex System is over TCP/IP
If Luminex System has a firewall running port 7575 must be opened for communication between Lab PC(s) and the Luminex system(s).

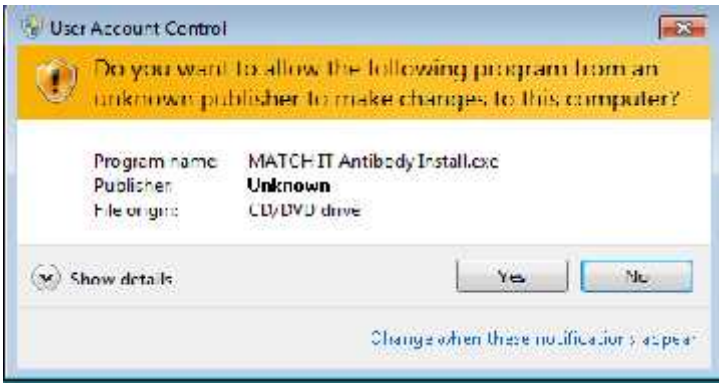
6.0 Software Installation

1. Insert the Installation CD into the CD player on the target computer. Right click on MATCH IT! Antibody Install and select ***Run as administrator*.**



Please note: there may be a delay when executing the MATCH IT! Antibody Install for some computers.

2. MATCH IT! Antibody Installation- User Account Control- Click **Yes**



3. MATCH IT! Antibody Installation- Welcome- Click **Next**

4. MATCH IT! Antibody Installation- System Checks- Click **Next**
   The installation process is checking the operating system and available system memory. If the minimum requirements for installation are not met the install will cancel and the MATCH IT! software will not install.
   Special Note: If Microsoft .NET Framework is required it will install automatically. This will cause an automatic restart on the computer. After computer reboot go to back to step 1.

5. MATCH IT! Antibody Installation- End User License Agreement- Check off "**I accept the license agreement**". Click **Next**

6. MATCH IT! Antibody Installation- Available Applications for Installation- Click **Next**

Note: If Luminex xPONENT software is present on the computer, the installer will install LIFECODES Services.

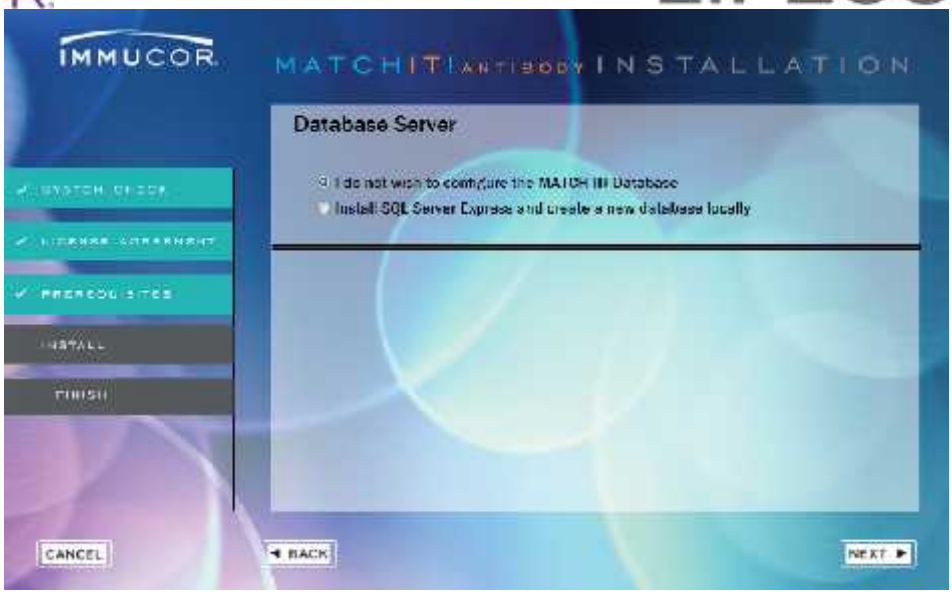
Note: If this is an upgrade of a previous version of LIFECODES Services the LIFECODES Services selection box will be hidden.

7. MATCH IT! Antibody Installation- Database Server

   a. If this is a **New Install** with a Local Database:
      Select **"*Install SQL Server Express and create a new database locally*"**
      Select **Next.**
      Proceed to step 8.

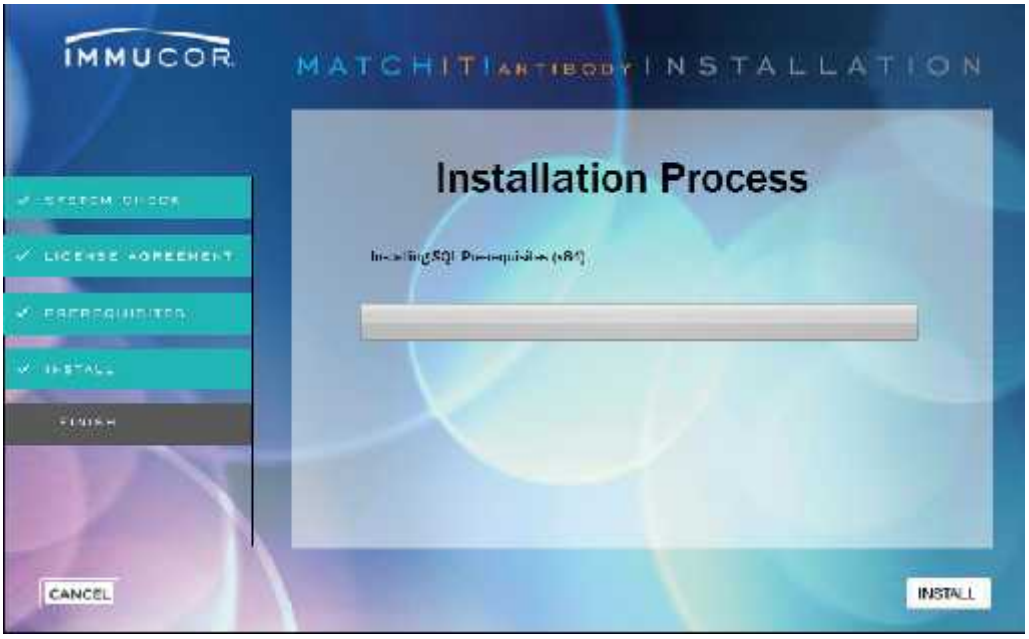
   b. If any of the following conditions are true:
      i. This is a **Client install** of MATCH IT! Antibody v1.3.
      ii. This is a MATCH IT! Antibody **upgrade.**
      iii. MATCH IT! DNA is already installed.

   Select **"*I do not wish to configure the MATCH IT! Database*"**
   Select **Next**

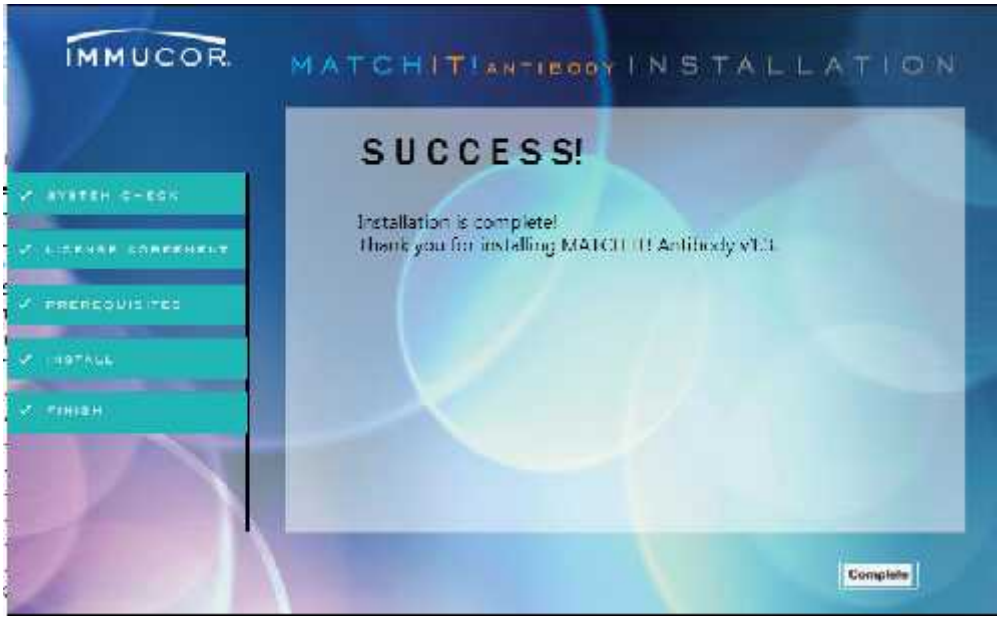


8. MATCH IT! Antibody Installation- Click **Install**

9. MATCH IT! Antibody Installation- Installation Process- Click **Install**



10. MATCH IT! Antibody Installation- Completion- Click **Complete**



11. Verify successful installation or upgrade to MATCH IT! Antibody v1.3 by opening the software. Proceed to Step 12.

12. Download ***DatabaseUpate_AbV13_V1.exe*** from www.immucor.com\LIFECODES to complete the installation.

a. From the Immucor home page, click the link for LIFECODES → Transplant.

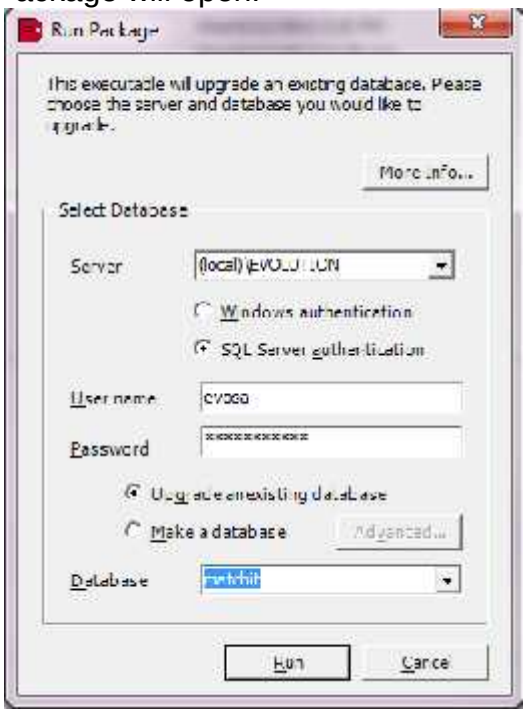
b. Select an LIFECODES Antibody Transplant product and navigate to the Software link at the bottom half of the page.

c. Select MATCHIT → MATCHIT – Antibody → Software Updates → Database Updates.

d. Download the DatabaseUpdate_ABV13_V1.exe

e. Right click on the executable and select run (as administrator)

f. The Run Package will open.



g. Server field should be:
- server name
- server name\EVOLUTION
- (local)\EVOLUTION

*If the database is located on a dedicated server use the server name

*If the database is being updated via the network use Server name\EVOLUTION

*If the database is located locally on a lab computer (PC with Full Installation) use (local)\EVOLUTION

h. Select “SQL Server Authentication”
User name = evosa
Password = lifematch#1

i. Select “Upgrade an existing database”

j. Click the arrow on the right-hand side of the database text box. Select the database to upgrade. Select Run.

Note: If the installation was performed on a Luminex computer and LIFECODES Services was upgraded from a previously installed version please perform the following after installation is complete.

1. Backup WatchFolderConfigurator.exe.config which is located in C:\Program Files (x86)\LIFECODES\Lifecodes Services
2. Run LifecodesServicesSetup.msi from the MATCH IT! Antibody v1.3 CD.
3. Copy back WatchFolderConfigurator.exe.config file and then restart the services and/or just restart the PC.

13. **Post-Install-Applies to software upgrades**
If the system was upgraded from Antibody 1.2 or 1.2.1 and/or MATCH IT! DNA 1.2.3(where a database already existed), do the following:
    a. Go to C:\Program Files (x86)\LIFECODES

    b. Confirm a “MATCH IT! Database Management” folder exists.

    c. Delete the old”Database Management” folder, if it exists.

14. **Post-Install-Applies to Client Installs**
If this is a client install and the database is located on a dedicated desktop computer or a server, verify the computer /server name is included in the XMLServerList.xml.

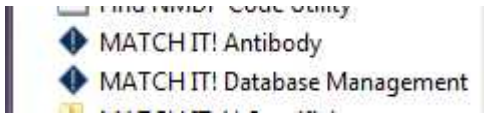
    a. Locate the XMLServerList.xml in the following directory: C:\Program Data\Lifecodes

    b. Open the file in Notepad.

    c. Add the server name or computer name inside the Server tags within the XMLServerList.xml file. Close and save file.

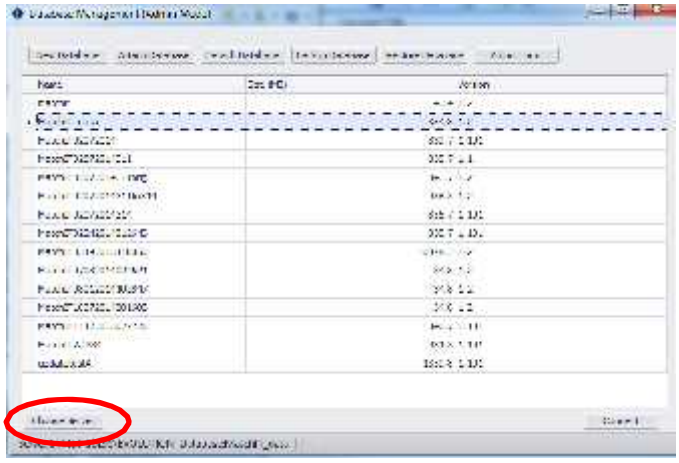
Note: The XMLServerList.xml file can be used on all client computers connecting to the same server and database.

d. Go to the Start Menu All Programs Lifecodes MATCH IT! Database Management.



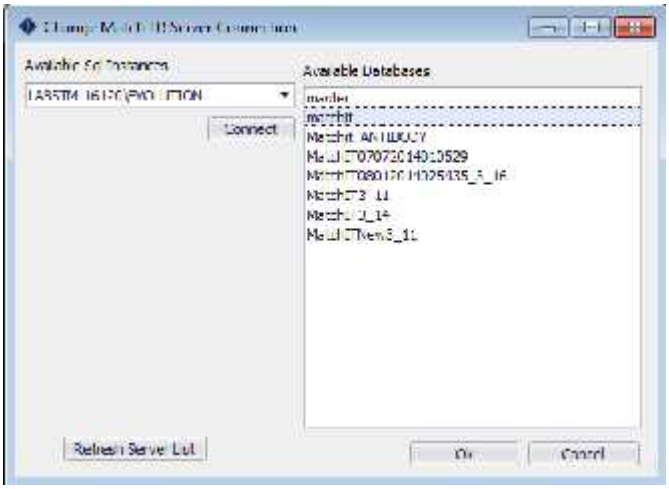
Select Antibody from the "Select Application" dropdown.
Log in using the following credentials:
Login Name: dbadmin
Password: GenProbeS@L1
Click **Login**

e. Click on Choose Server
Note: If this is a new client install the window below will not display. Go to 14f.

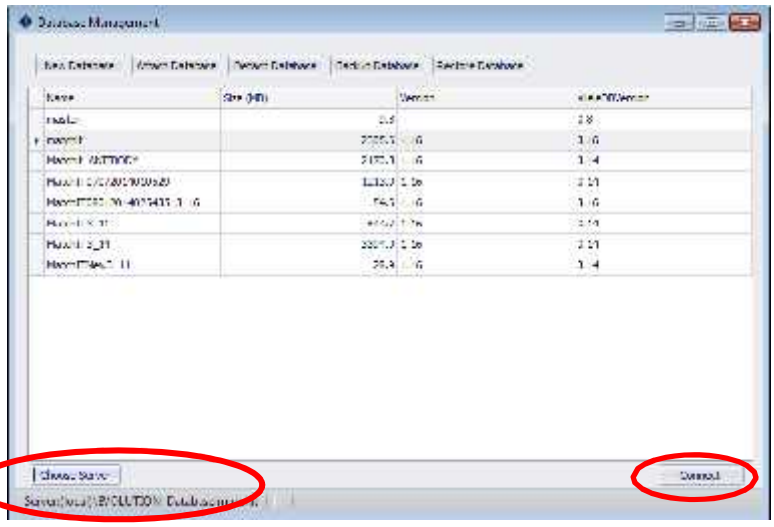


f. Choose a server name or computer name from the drop down list of **Available Sql Instances**
Select **Connect**.

Highlight the database of interest from the list of available Databases.
Select OK.



g. Confirm connection to the correct server and database.



Close Database Management and verify the software is connected to the correct database by opening Match IT! Antibody.

15. **Post-Install- For Non-administrator Users:**

These steps are required prior to using the software for each individual.

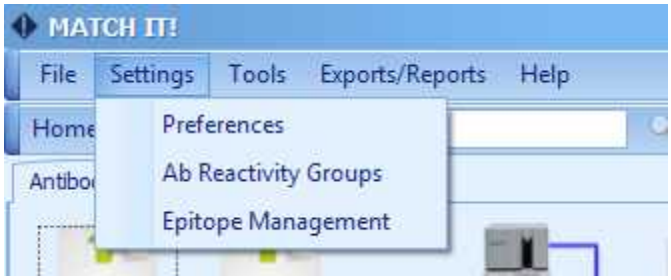
a. Navigate to: C:\Programfiles(86)\LIFECODES\
Match IT! Antibody

b. Copy and paste the **Lifecodes** folder into the following location:
C:\ Users\ <User Name>\ App Data\Local

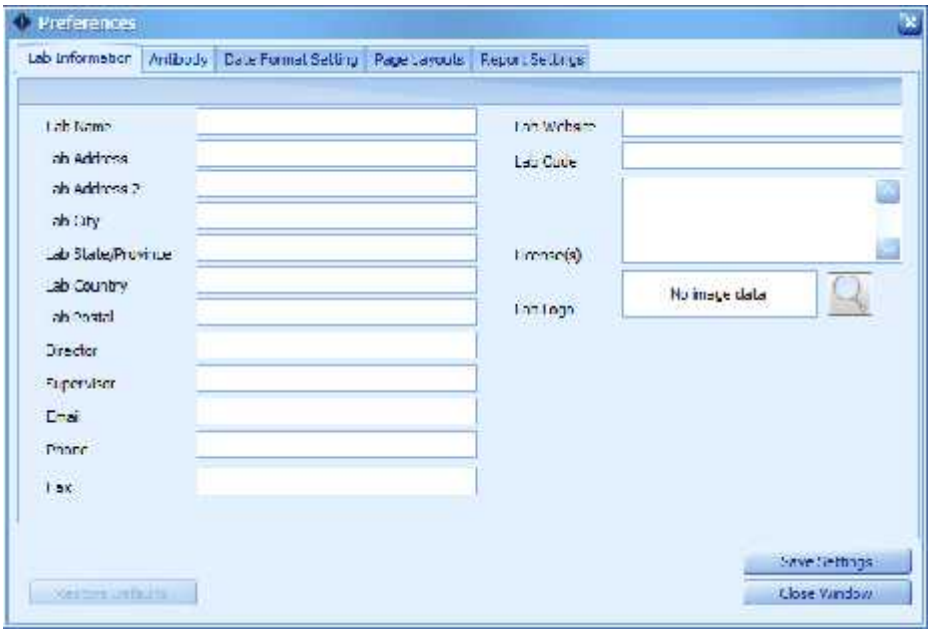
7.0 **Software Configuration Steps –** These steps may not be necessary for upgrades or systems which already have MATCH IT! DNA installed.

Several items are required to complete the installation process. Failure to complete these steps may result in problems when printing reports and using the Auto Batch processing.

1. Lab Information
   a. Open the MATCH IT! Antibody software
   b. From the toolbar open the Settings menu and chose the Preferences menu item.



   c. The preferences window will open. Enter the pertinent lab information. This is used as the header information in the system reports, so it is important for this information to be available.

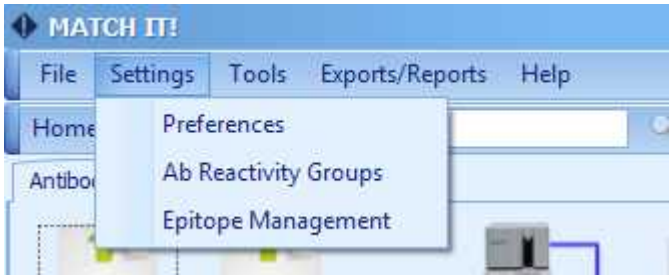


   e. Click the **Save Settings** button – the system will indicate that the save has completed successfully

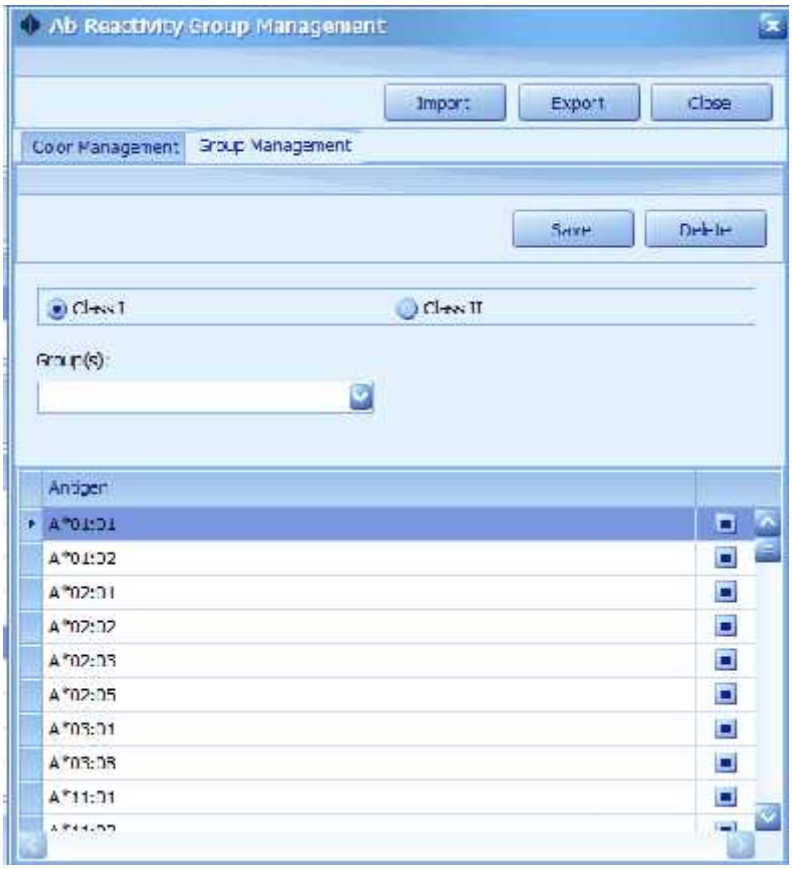
2. Antibody Reactivity Groups

a. Obtain the most current Creg Group file from:
Navigate to WWW.IMMUCOR.COM/LIFECODES and click Lifecodes->Transplant--> Select any product -- [illegible]→Select the MATCHIT! folder→Select the MATCHIT-Antibody folder→Select the Code Updates folder→Select CREG Groups→Select Creg_Group_XXXXXXX to download the Creg_Group_XXXXXX.xml file.

b. In Match IT! Antibody, go to **Settings**.
Select **AbReactivity Groups.**



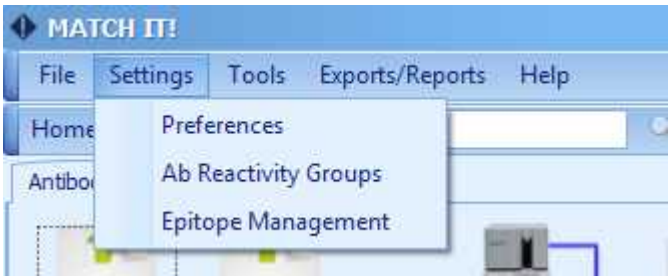
c. Import the Creg_Group_XXXXXX.xml .



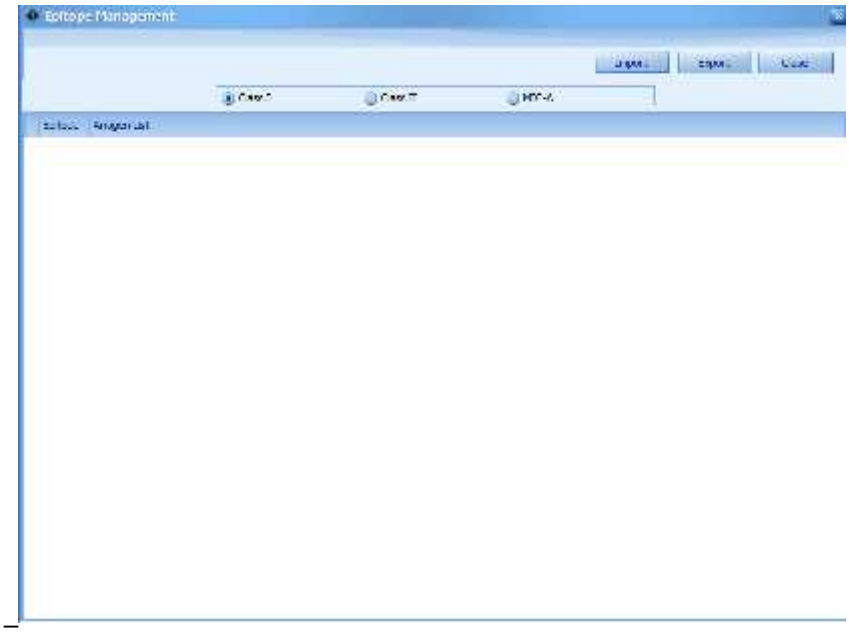
3. Epitope Management

a. Obtain the most current Epitope files from:
Navigate to WWW.IMMUCOR.COM/LIFECODES and click Lifecodes->Transplant--> Select any product --
→Select the MATCHIT! folder→Select the MATCHIT-Antibody folder→Select the Code Updates folder→Epitope Groups
Download Class_I XXXXXX.csv, Class_II_XXXXXX.csv and MICA_XXXXXX.csv files.

b. In Match IT! Antibody, go to **Settings**.
Select **Epitope Management.**

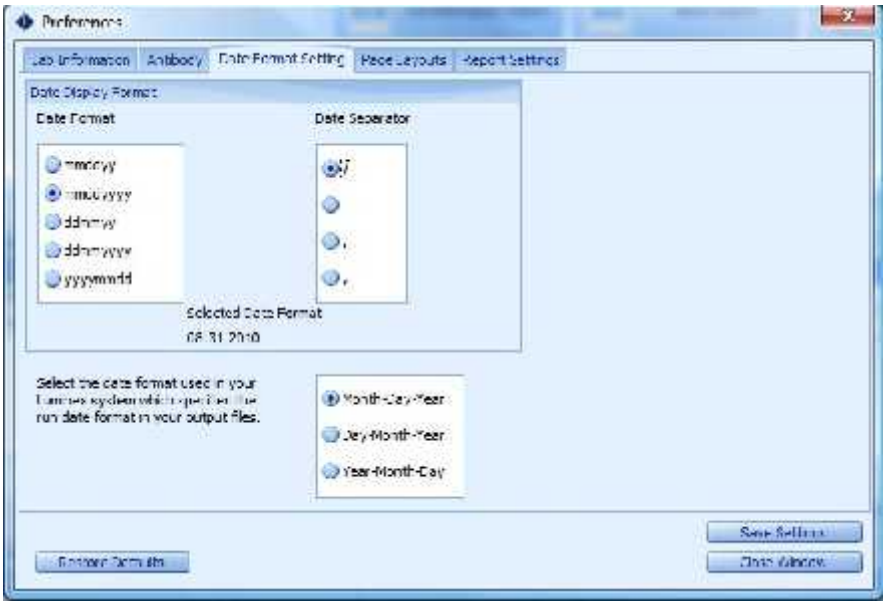


Select Class I and import the Class_I XXXXXX.csv file.
Select Class II and import the Class_II_XXXXXX.csv file.
Select MIC-A and import the MICA_XXXXXX.csv file.



4. Date Format Settings

a. From the Open Preferences window select the Date Format Setting tab.



b. Chose the display date for the system, this will format all dates within the system as the “Selected Date Format”. Select **Save Settings**.
c. Next set the date format that your Luminex system uses. The Run Date from the CSV file is captured by the MATCH IT! System and thus it is necessary to know what format Luminex is using to put the date in the output CSV file. If this does not match the format upon importing of a CSV the system will ask the end user to specify the run date.
d. Click the Close Window button to close this form.

8.0 LIFECODES Services Configuration

Note: LIFECODES Services is only required on computers connected to a Luminex instrument.

1. New Install of LIFECODES Services:
    a. Confirm LIFECODES Services successfully installed.
    b. Go to Control Panel\Programs and Features and confirm LIFECODES Services program is listed.
    c. If LIFECODES Services is not installed, run the LifecodesServicesSetup.msi from the MATCH IT! Antibody v1.3 CD.

2. Upgrade of an existing version of LIFECODES Services:
    a. Back-up the WatchFolderConfigurator.exe.config file which is located in C:\Program Files (x86)\LIFECODES\Lifecodes Services.
    b. From the MATCH IT! Antibody v1.3 CD, run LifecodesServicesSetup.msi
    c. Copy back WatchFolderConfigurator.exe.config file and restart the pc.

3. Create three folders – Output (may already exist but reconfirm it exist), MatchITXML and Completed:

a. Local xPONENT 3.1 Folder Structure:
C:\ProgramData\Luminex\xPONENT31\Output
C:\ProgramData\Luminex\xPONENT31\MatchIT! XML
C:\ProgramData\Luminex\xPONENT31\MatchIT! XML\Completed

b. Local xPONENT 4.2 Folder Structure:
C:\ProgramData\Luminex\xPONENT42\Output
C:\ProgramData\Luminex\xPONENT42\MatchIT! XML
C:\ProgramData\Luminex\xPONENT42\MatchIT! XML\Completed

c. Local IS 2.3 Folder Structure:
C:\My Batches\Output
C:\My Batches\MatchIT! XML
C:\My Batches\MatchIT! XML\Completed

d. Networked folder directory example:
<Server computer name>\My Batches\Output
<Server computer name>\My Batches\MatchIT! XML
<Server computer name>\My Batches\MatchIT! XML\Completed

4. (**Applies only to new installs of LIFECODES Services not upgrades**.) Navigate to C:\Program Files\LIFECODES\Lifecodes Services. Right click on the WatchFolderConfigurator.exe.config and open in Notepad.

Copy the location created on step 2 for Output into the "OutFolder" value, MatchITXML into the "InFolder" value and the Completed folder into the "Processed" value. Click Save and close.

(If you are unable to save the config file in the Lifecodes Services directory, save file on the desktop and then drop the config file into the C:\Program Files\LIFECODES\Lifecodes Services directory.)

xPONENT Folder Structure

File Edit Format View Help

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <appSettings>
    <add key="InFolder" value="C:\ProgramData\Luminex\xPONENT31\MatchIT! XML"/>
    <add key="OutFolder" value="C:\ProgramData\Luminex\xPONENT31\Output"/>
    <add key="Processed" value="C:\ProgramData\Luminex\xPONENT31\MatchIT! XML\Completed"/>
    <add key="DefDB" value=""/>
  </appSettings>
```

IS 2.3 Folder Structure

File Edit Format View Help

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <appSettings>
    <add key="InFolder" value="C:\My Batches\MatchIT! XML"/>
    <add key="OutFolder" value="C:\My Batches\Output"/>
    <add key="Processed" value="C:\My Batches\MatchIT! XML\Completed"/>
    <add key="DefDB" value=""/>
  </appSettings>
```

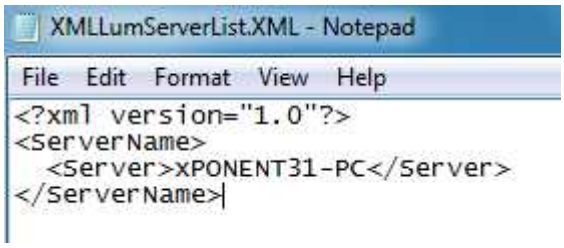
Networked folder directory example

File Edit Format View Help

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <appSettings>
    <add key="InFolder" value="\\<Server computer name>\My Batches\MatchIT! XML"/>
    <add key="OutFolder" value="\\<Server computer name>\My Batches\Output"/>
    <add key="Processed" value="\\<Server computer name>\My Batches\MatchIT! XML\Completed"/>
    <add key="DefDB" value=""/>
  </appSettings>
```

Note: If the Luminex output csv files are going to a network location always enter the unc path and not the mapped drive letter. See example: \\stmlab-8vc73m1

5. Navigate to C:\ ProgramData\LIFECODES and access a file named XMLLumServerList.XML and open in notepad.
   Enter the Luminex computer name.
   Save as XML.



6. Enable TCP/IP if applicable:
   a. Go to **Start .**
   b. Go to **All Programs.**
   c. Open the Microsoft SQL Server 2008 R2 or 2012 Folder.
   d. Open the Configuration Tools folder.
   e. Open SQL Server Configuration Manager and open Protocols for EVOLUTION, Under Status select “Enable” the TCP/IP protocol. Likewise, the protocols names “Share Memory” and “Named Pipes” should be Enabled and protocol VIA should be disabled.
   f. Open SQL Server Services. Right Click on SQL Server(EVOLUTION) and select Restart. (Applies if database is local)

7. Disable protocol TCP/IPv6.
   a. Go to Control Panel and open Network and Sharing Center
   b. Click on Local Area Connection and select Properties
   c. Uncheck TCP/IPv6

8. Change power saver settings.
   a. Go to **Start**>**Control Panel.**
   b. Choose “Small Icons” on the top right menu called “View By”
   c. Click Power Options
   d. Click “Choose when to turn off the display”
   e. Choose **Never** for **Turn Off Display, Put the Computer to Sleep**
   f. Click **Save Changes**
   g. Go back to Control Panel home screen and choose “**Display**”
   h. Click “**Adjust Resolution**”
   i. Screen Resolution should be set at 1280 by 1024 pixels
   j. Click OK.

9. Turn off firewall:
    a. Go to **Start>Control Panel**
    b. Choose **Windows Firewall**
    c. In the new window choose **Turn Windows Firewall on or off**
    d. Under new window turn Windows Firewall **off** on both domain and work/or public network location settings.

10. Change Folder View Option to Details:
    a. In the top right of the Windows Explorer window, choose “Details”
    b. In C:\Program Files select Organize in the top menu
    c. Click on “Folder and Search Options”
    d. Go to the **View** tab and select **Apply to All Folders**
    e. Click the radio button for “Show hidden files, folders and drives”, click OK.

11. Open Firewall Port: See Appendix A.

Special Notes:

1. Networked Directory:

   If using a Networked folder directory, you may also need to give the services permissions to access the network folders. Request a service account with access to the network directory from your Network administrator.

   a. Navigate to Control Panel | Administrative Tools | Services
   b. Find Watch Folder Listener
   c. Right click and select *Properties*
   d. Click on the Log On Tab
   e. Tick '*This Account*'
   f. Enter the network ID/username and password of a user with permissions to the network drive.
   g. Repeat steps for MatchIT Listener
   h. Restart the computer.

2. Multiple Luminex computers:

   If there is more than one Luminex computer, you will need to disable the Watch Service Listener on all but one Luminex computer. (Only one Luminex computer should be running the Watch Service Listener)

   a. Navigate to Control Panel | Administrative Tools | Services
   b. Find Watch Folder Listener
   c. Right click and select *Properties*
   d. Select Stop

3. Setup the **XMLLumServerList.XML** file:

   This section is applicable to all computers connecting to the Luminex computer. The steps listed below are to be implemented on all connecting computers having MATCH IT! software.

   a. Navigate to:
      C:\ProgramData\Lifecodes

   (Note: If the Program Data file is hidden do the following:
   In Windows Explorer go to Tools | Folder Options. Select View tab. Under Advanced setting: toggle "Show hidden files, folders, or drives. Select Apply and OK.)

   b. Right click on XMLLumServerList.XML and select Open with Notepad
   c. Enter the name of the Luminex computer into the file as illustrated below.

```
<?xml version="1.0" ?>
- <ServerName>
    <Server>Computername</Server>
  </ServerName>
```

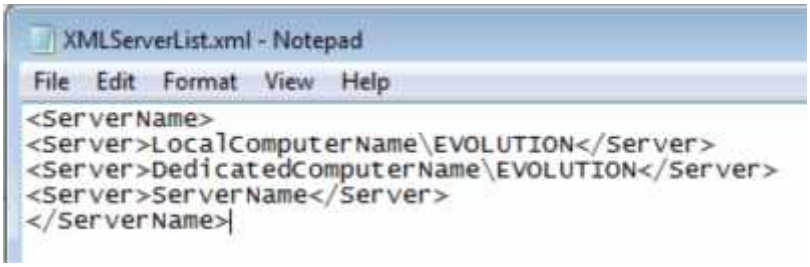
Select File | Save.

This file should be copied on all other computers connecting to the Luminex computer.

4. Setup the **XMLServerList.XML** file:
   This section is applicable to all computers connecting to the Luminex computer. The steps listed below are to be implemented on all connecting computers having the MATCH IT! software.

   a. Confirm the XMLServerList.xml file is available in C:\ProgramData\Lifecodes.
   b. Open the XMLServerList.xml in notepad.

Local MATCH IT! database on Local Computer - Add the Local computer name and database instance name.
Client install/ MATCH IT! database on a Dedicated Computer - Add the dedicated computer name and database instance name.
Client install/ MATCH IT! database on server- Add server name.



   c. Save file

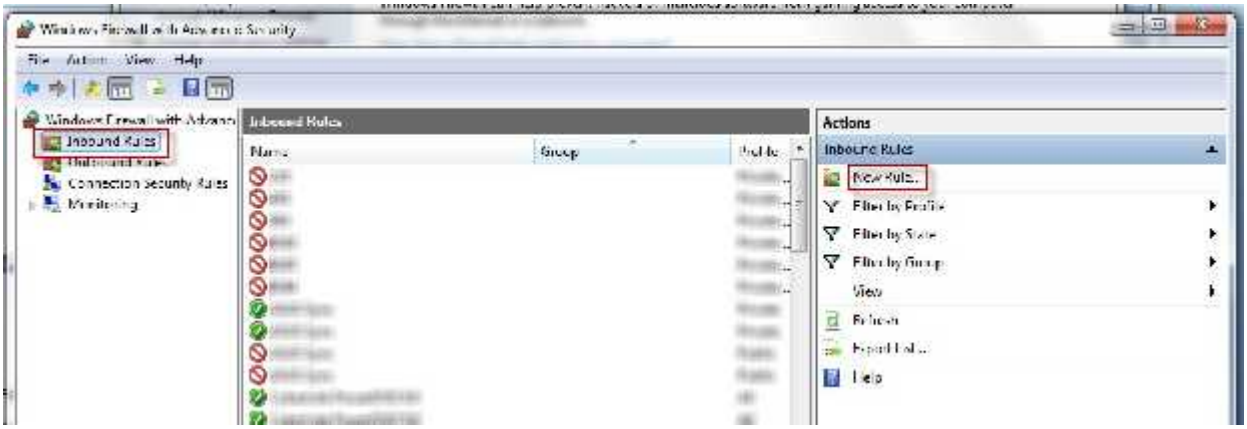
9.0 Appendix A-Opening Firewall Port

Procedure for Opening Firewall Port 7575 in Windows 7, 8 and 10

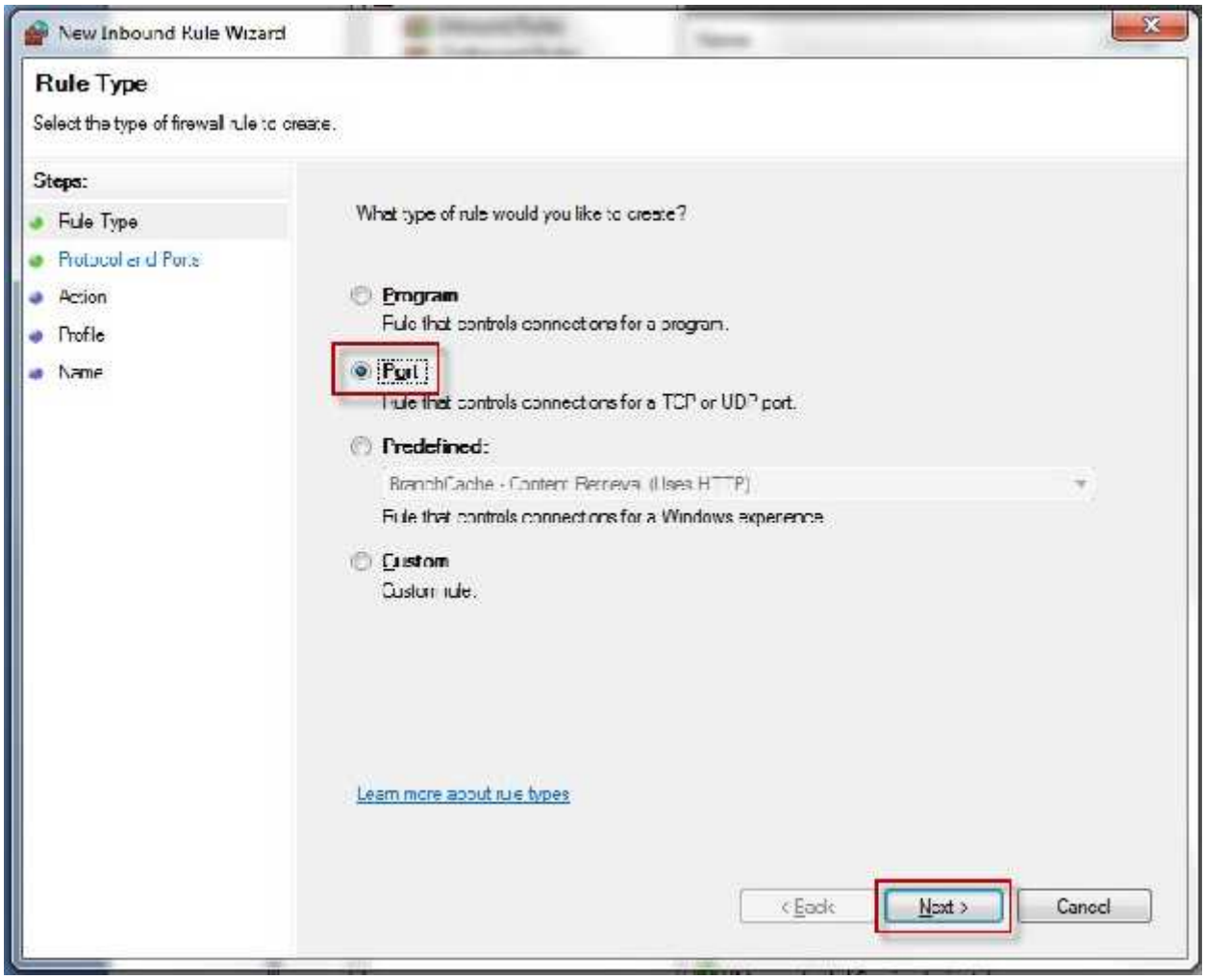
1. From the **Start** menu, open the **Control Panel**
2. In the Control Panel, click the link labeled Windows Firewall.

2. In the **Windows Firewall Control Panel** page, click the link labeled **Advanced settings.**

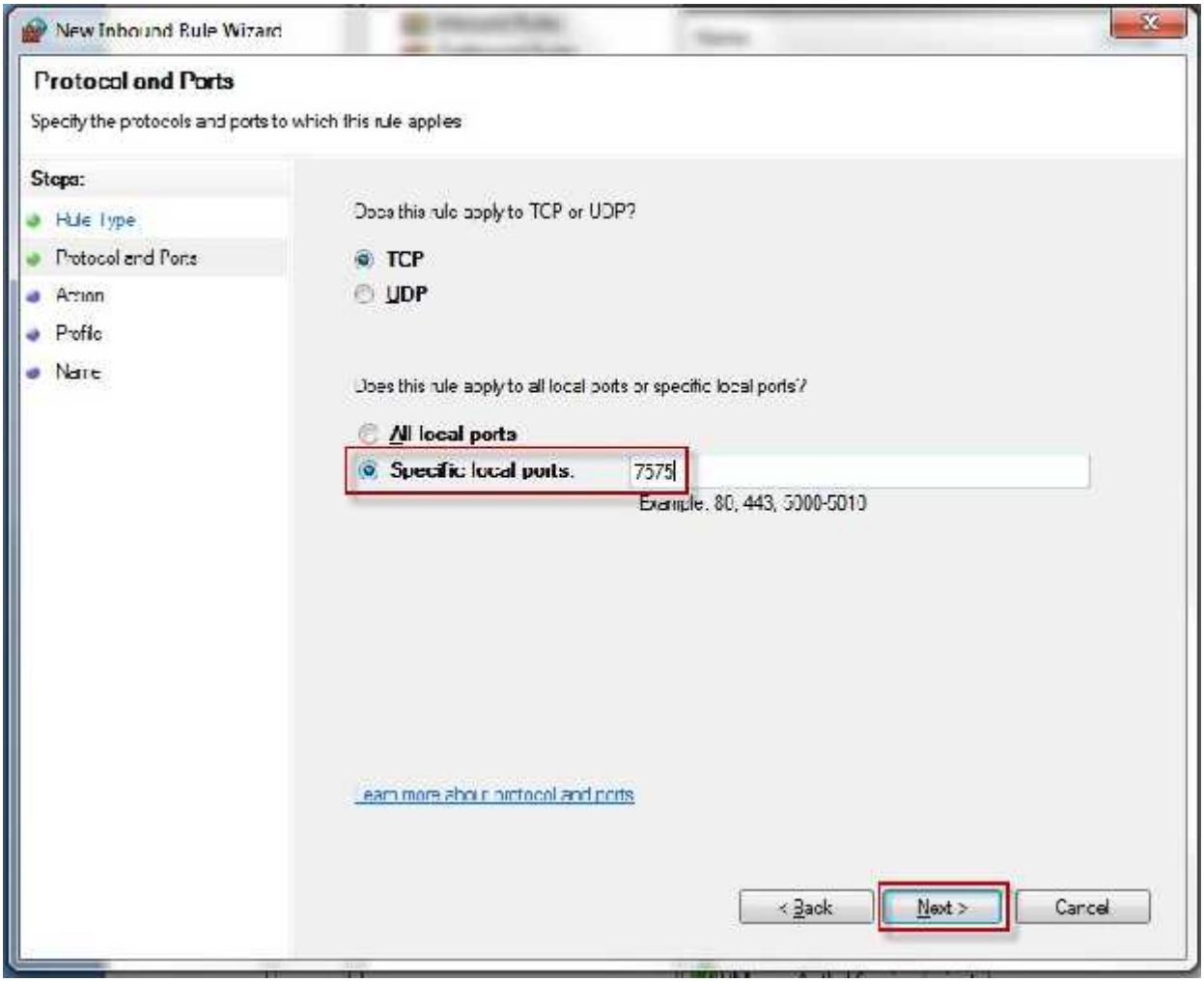
4. Select **Inbound Rules** (on the left), then click on **New Rule…** (on the right)



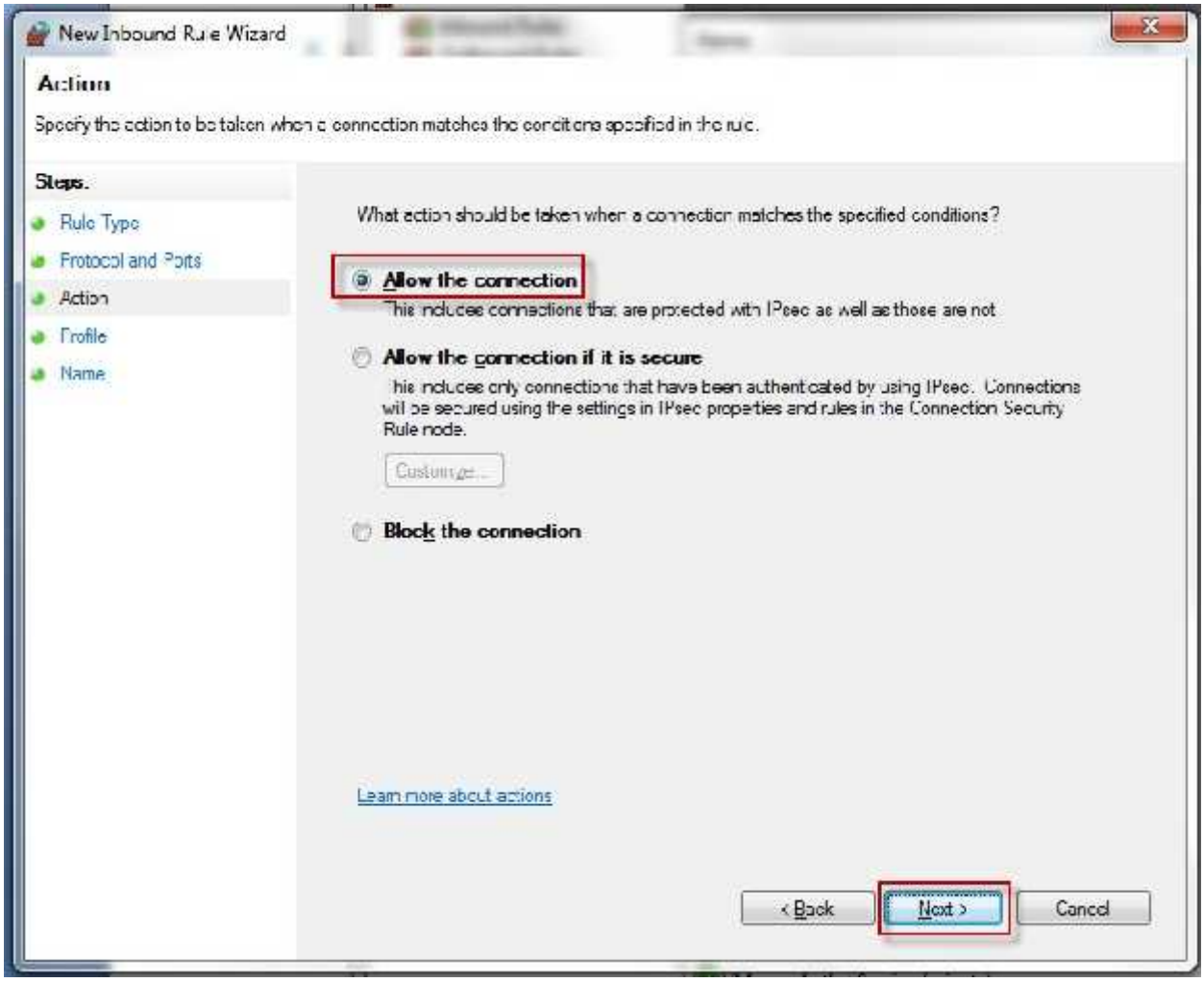
5. On the first page of the **New Inbound Rule Wizard**, select **Port**; then click **Next**



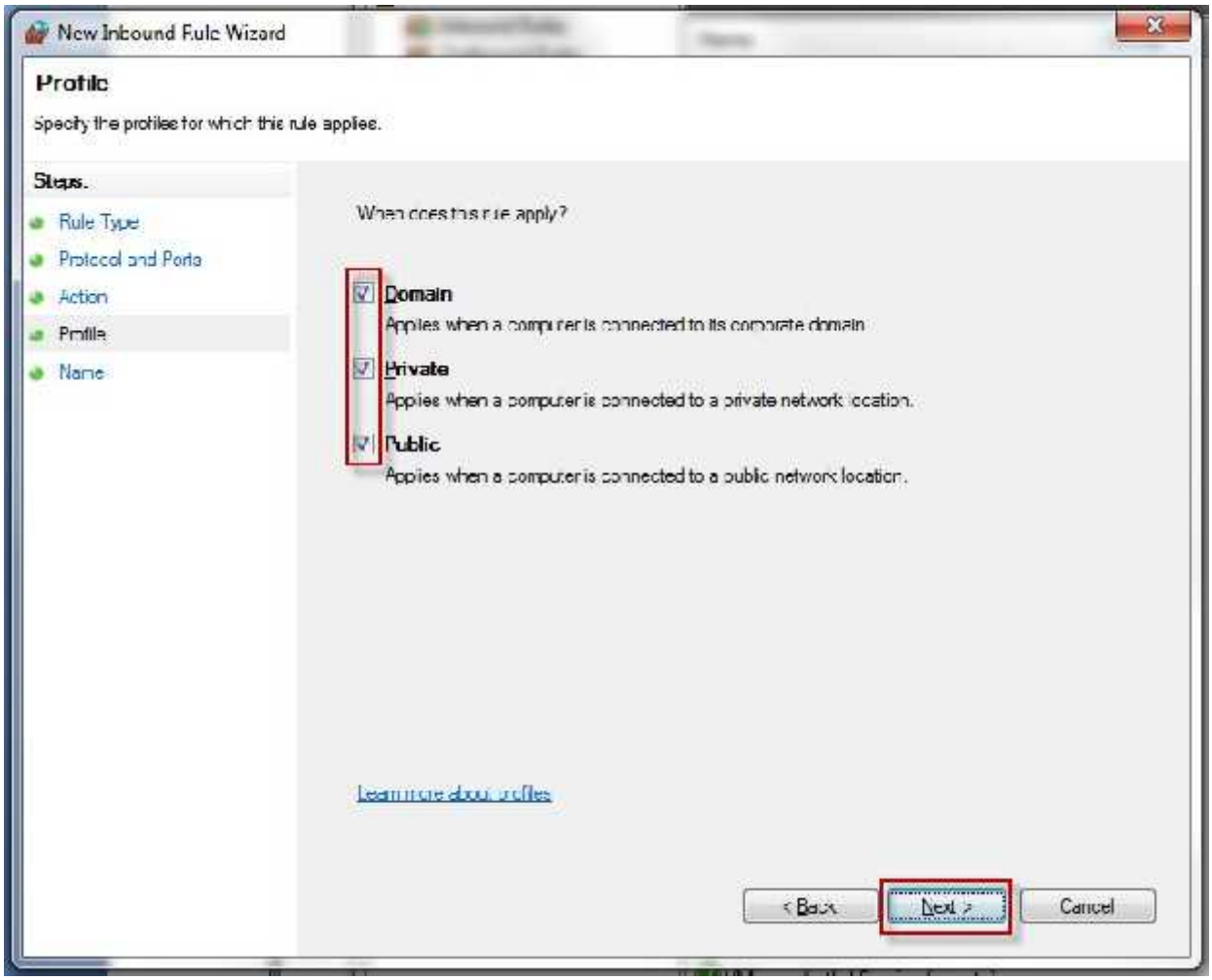
6. On the next page, click on **Specific local ports:** and type **7575** into the text box; then click **Next**



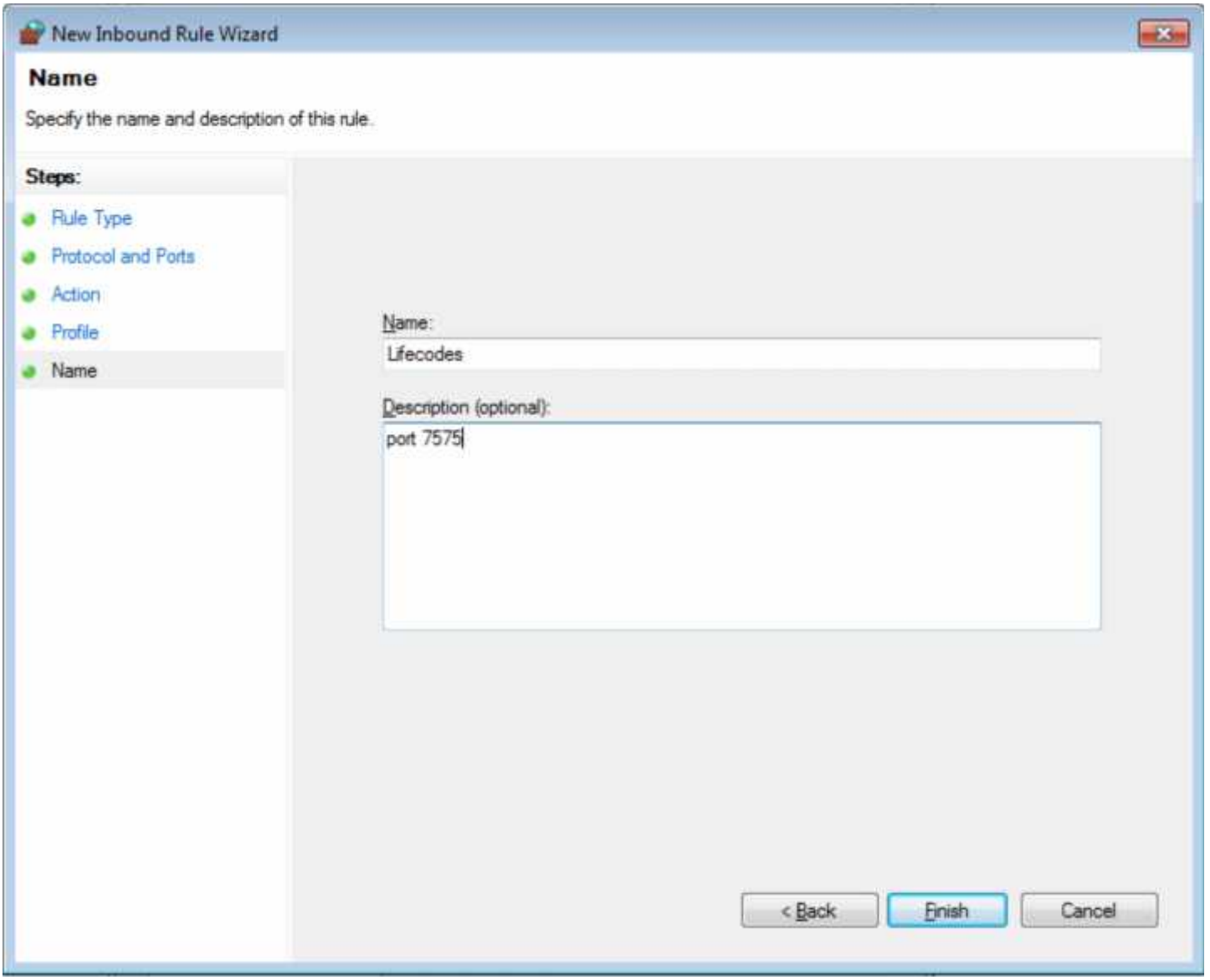
7. On the next page, select **Allow the connection**; then click **Next**



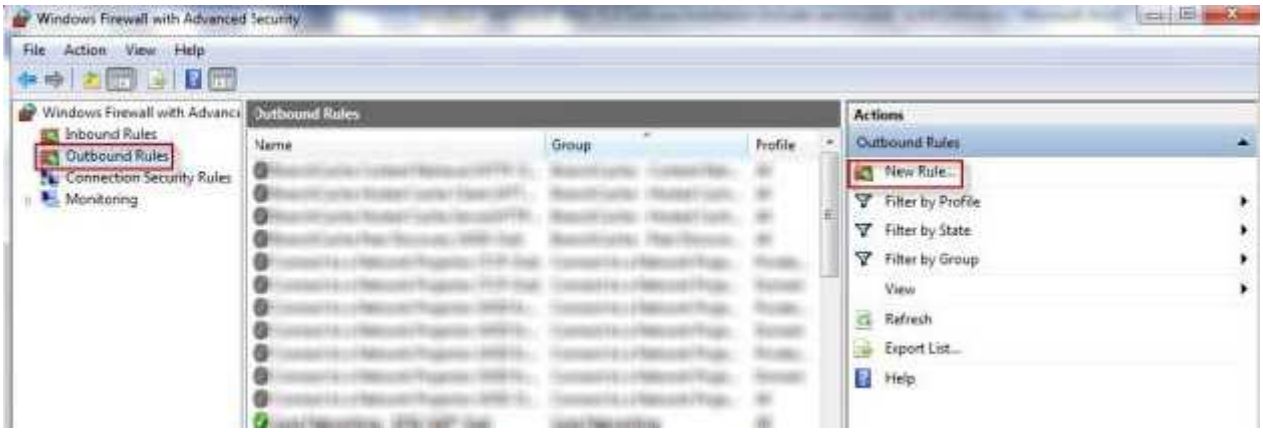
8. Decide when the port should be open, and check the appropriate boxes (all boxes are checked, as shown below); then click **Next.**



9. Enter Lifecodes for a Rule name. Enter “Port 7575” as an Description.



10. Select **Outbound Rules** (on the left), then click on **New Rule…** (on the right)



11. Repeat Steps 5-9