BacLink

Exporting data from Microscan

WHO Collaborating Centre for
Surveillance of Antimicrobial Resistance

Boston, July 2022

BacLink Tutorial – Exporting data from Microscan LabPro

The instructions are divided into four parts:

1. Downloading and installing WHONET and BacLink
2. Exporting data from Microscan LabPro
3. Converting data with BacLink
4. Getting started with WHONET

The purpose of this document is to guide users of the Microscan LabPro identification ana susceptibility test instrument through the export of data to WHONET.

The frequency of data conversions depends on the local data analysis needs and interests. Many laboratories find that a weekly or monthly download is adequate for their infection control and quality assurance purposes, while less frequent analysis may be adequate if the principal use of the data is in following trends in resistance and guiding treatment recommendations. Automated daily downloads of data from Microscan LabPro into WHONET is also a possibility, and is described below.

Part 1. WHONET AND Microscan

The purpose of this document is to guide users of the Microscan 1 or Microscan 2 identification and susceptibility test instrument through the export of data to WHONET. The Microscan 2 Compact does not yet have a simple export utility, but the manufacturer is currently developing this as a new feature.

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2. Exporting data from Microscan
3. Converting data with BacLink
4. Getting started with WHONET

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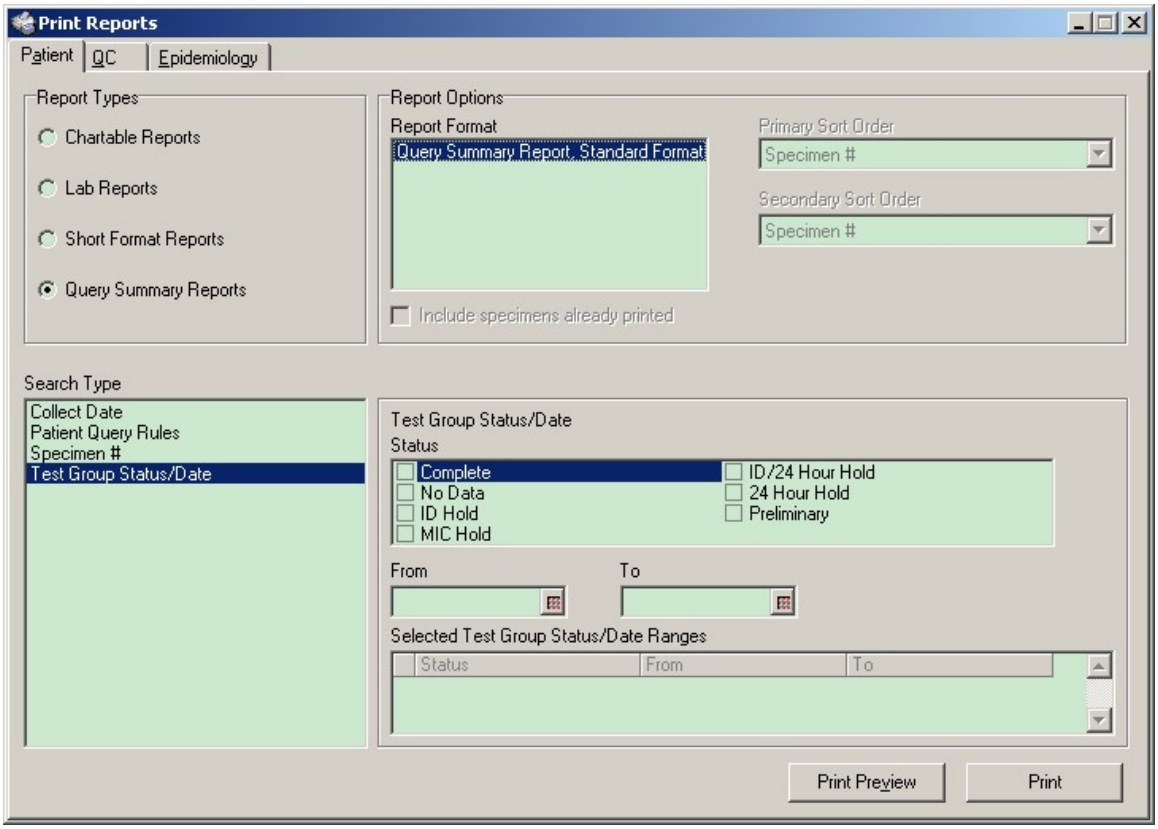
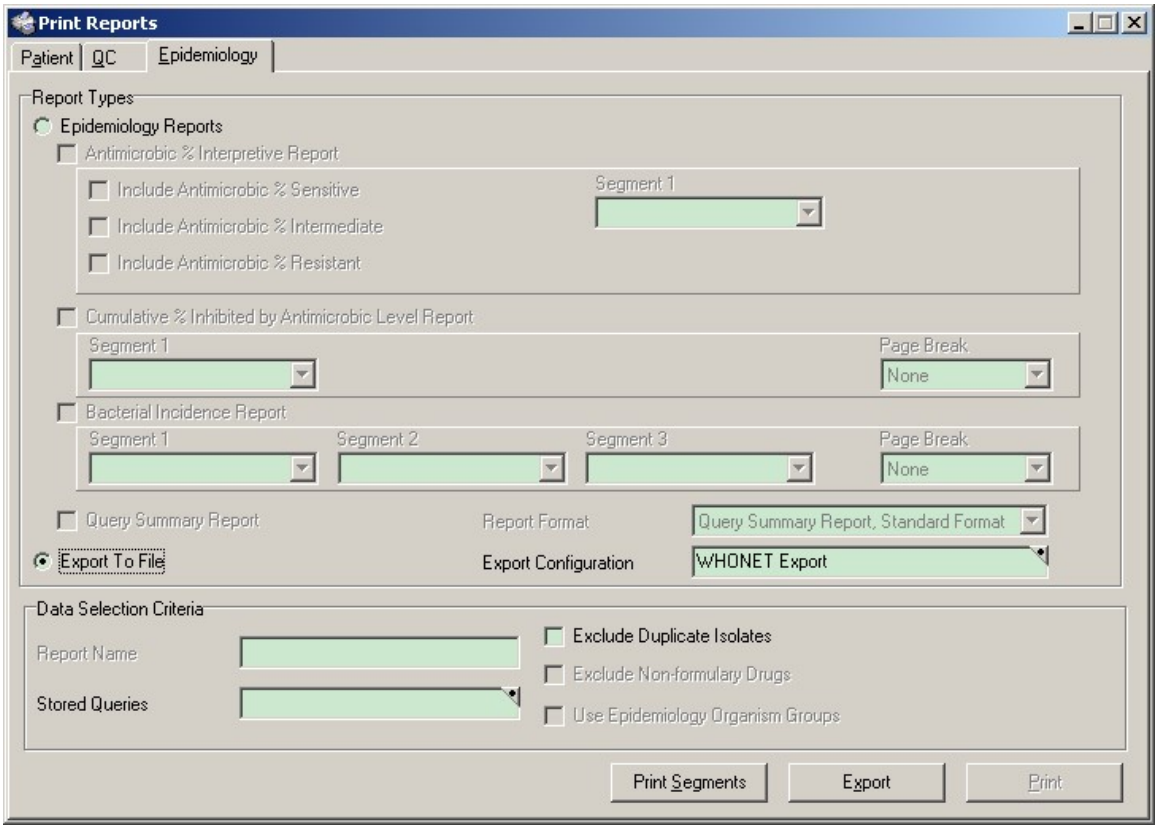
PART 2. EXPORTING DATA FROM MICROSCAN

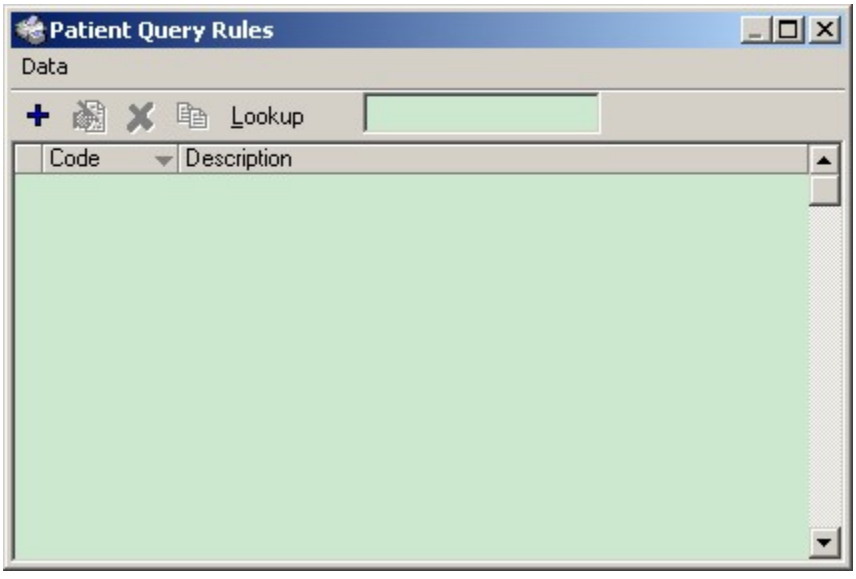
Open Microscan and click on Reports.



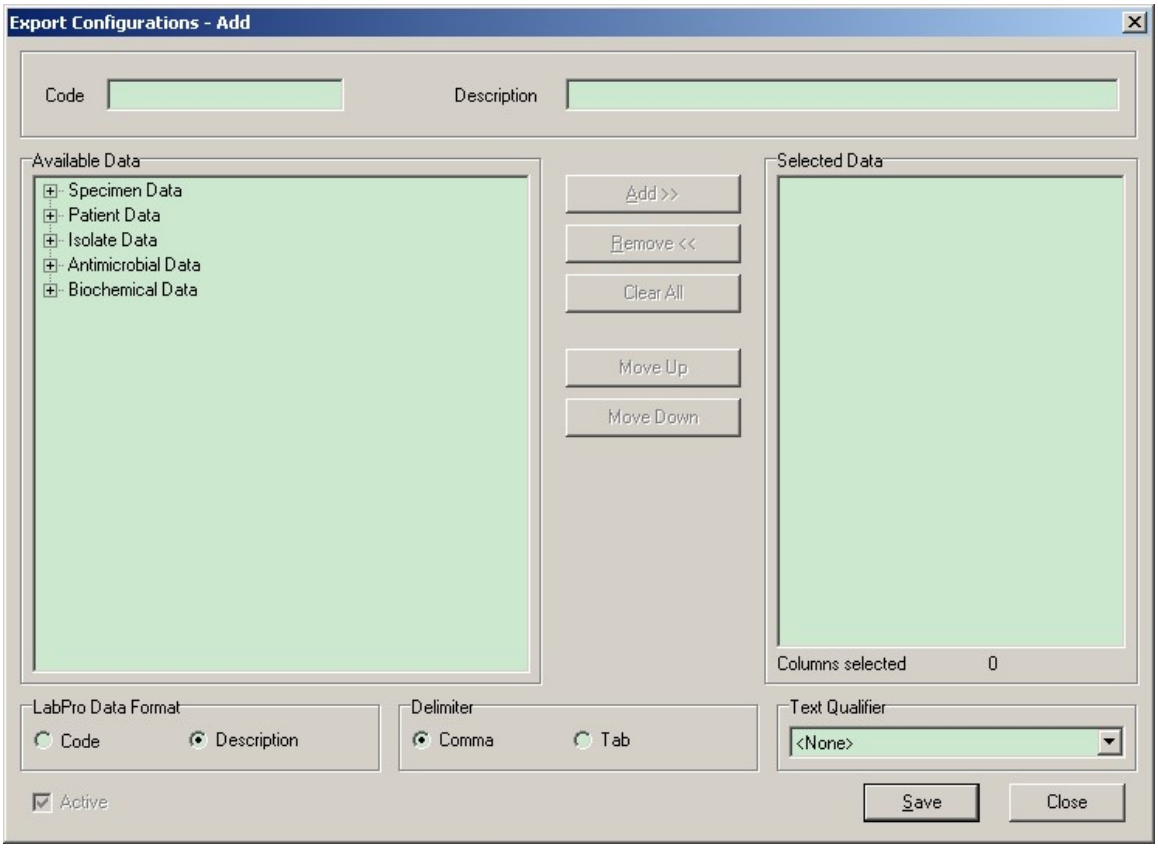
Click on the “Epidemiology” tab on the top right.



Click on “Export to File”
Click on the small dot/triangle in the top right section of the “Export Configuration Tab”



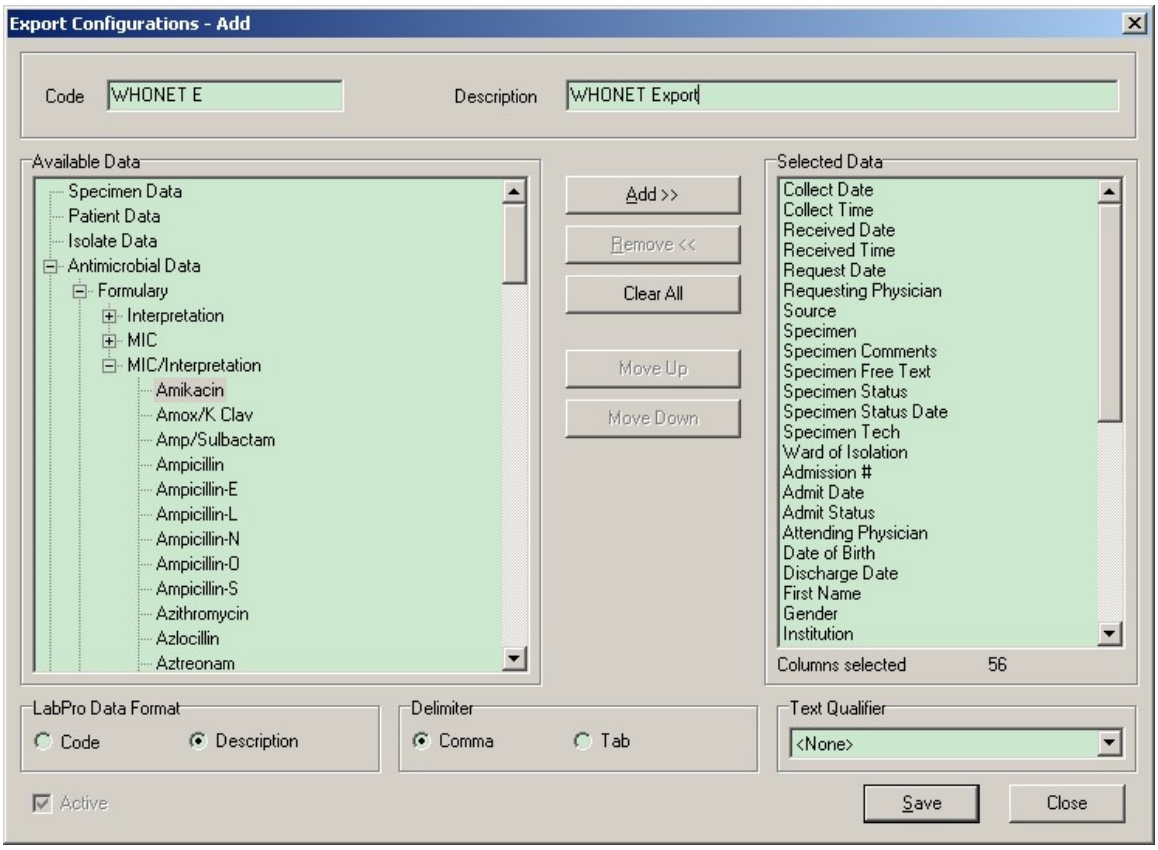
Click on the + sign to create a new Configuration



On the Top of the screen click on the Code field.
Call it “WHONET E”
Click on the Description Field
Call it “WHONET Export”

Click on Specimen Data
Click on “Add” in the middle of the screen. This should move all of the criteria over to the “Selected Data” column.
Click on Patient Data
Click on “Add” in the middle of the screen. This should move all of the criteria over to the “Selected Data” column.

Click on Isolate Data.
Click on “Add” in the middle of the screen. This should move all of the criteria over to the “Selected Data” column.

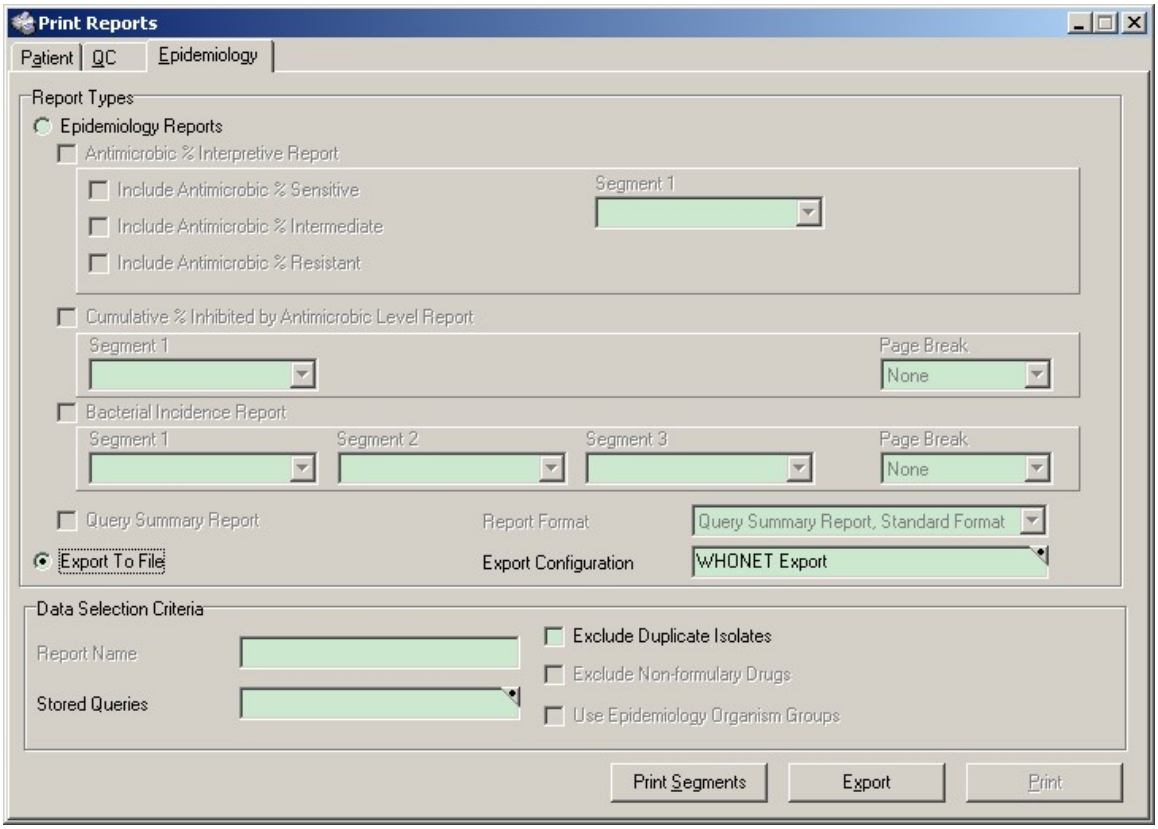


Click on Antimicrobial Data
Click on MIC/Interpretation
Click on "Add" in the middle of the screen. This should move all of the criteria over to the "Selected Data" column.

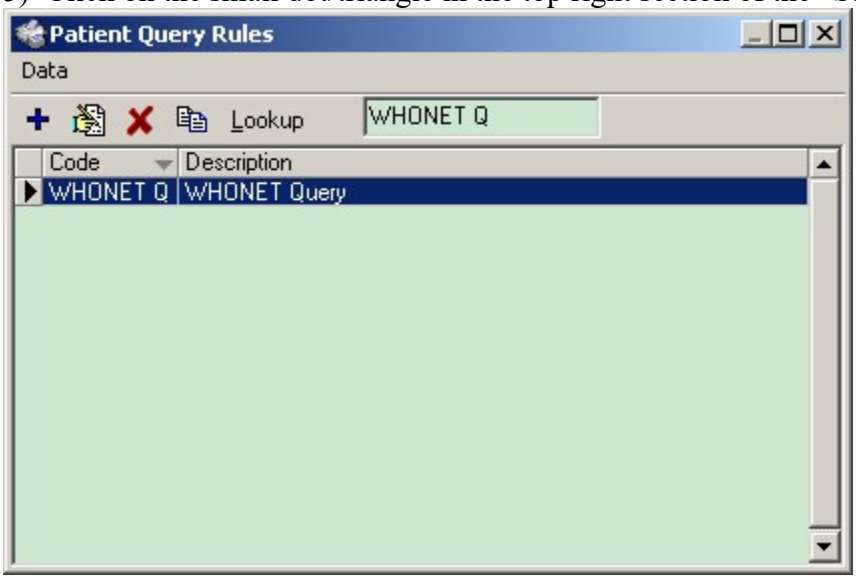
On the selected data column remove the following fields (Click the field, then click remove in the middle of the screen)
Patient Comments 1
Patient Comments 2
Patient Comments 3
Patient Comments 4
Patient Comments 5
Patient Free Text
Specimen Comments 1
Specimen Comments 2
Specimen Comments 3
Specimen Comments 4
Specimen Comments 5
Specimen Free Text
Isolate Comments 1
Isolate Comments 2
Isolate Comments 3
Isolate Comments 4
Isolate Comments 5
Isolate Free Text

Click on “Save”

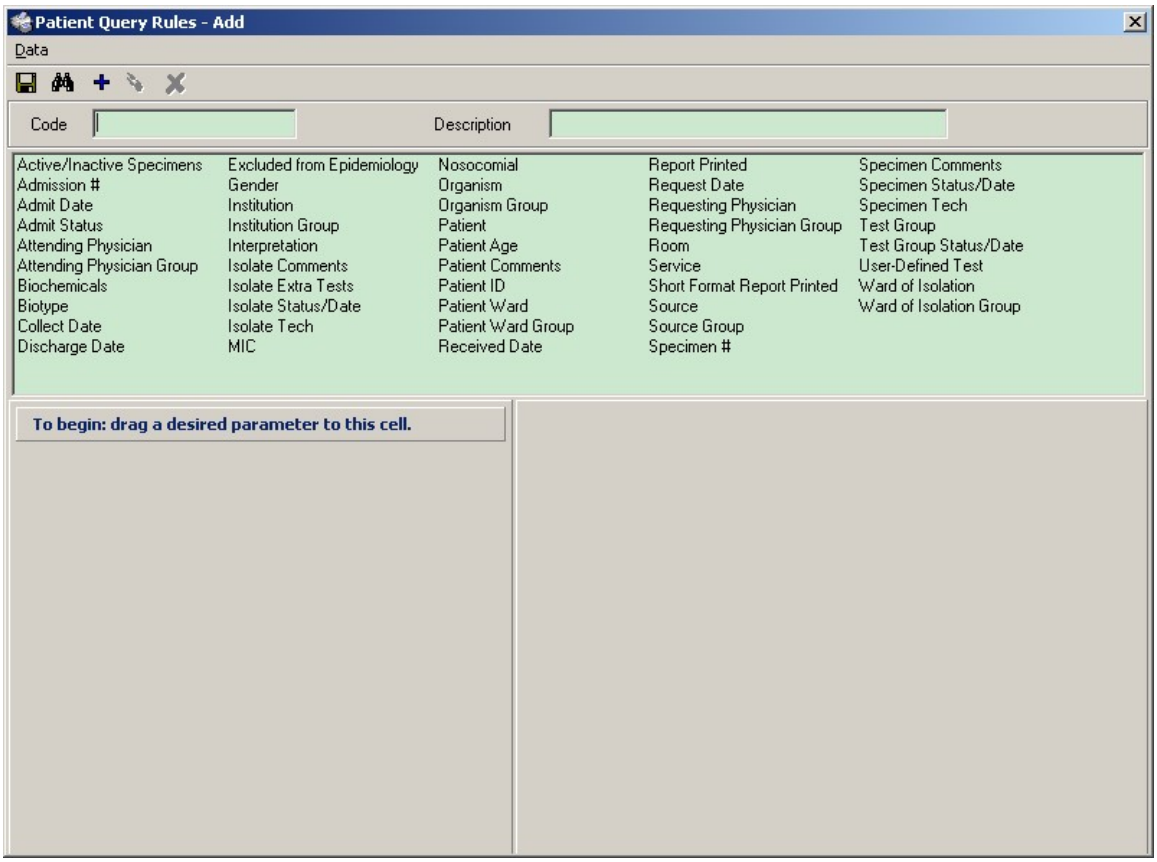
Go back to the main Epidemiology screen.



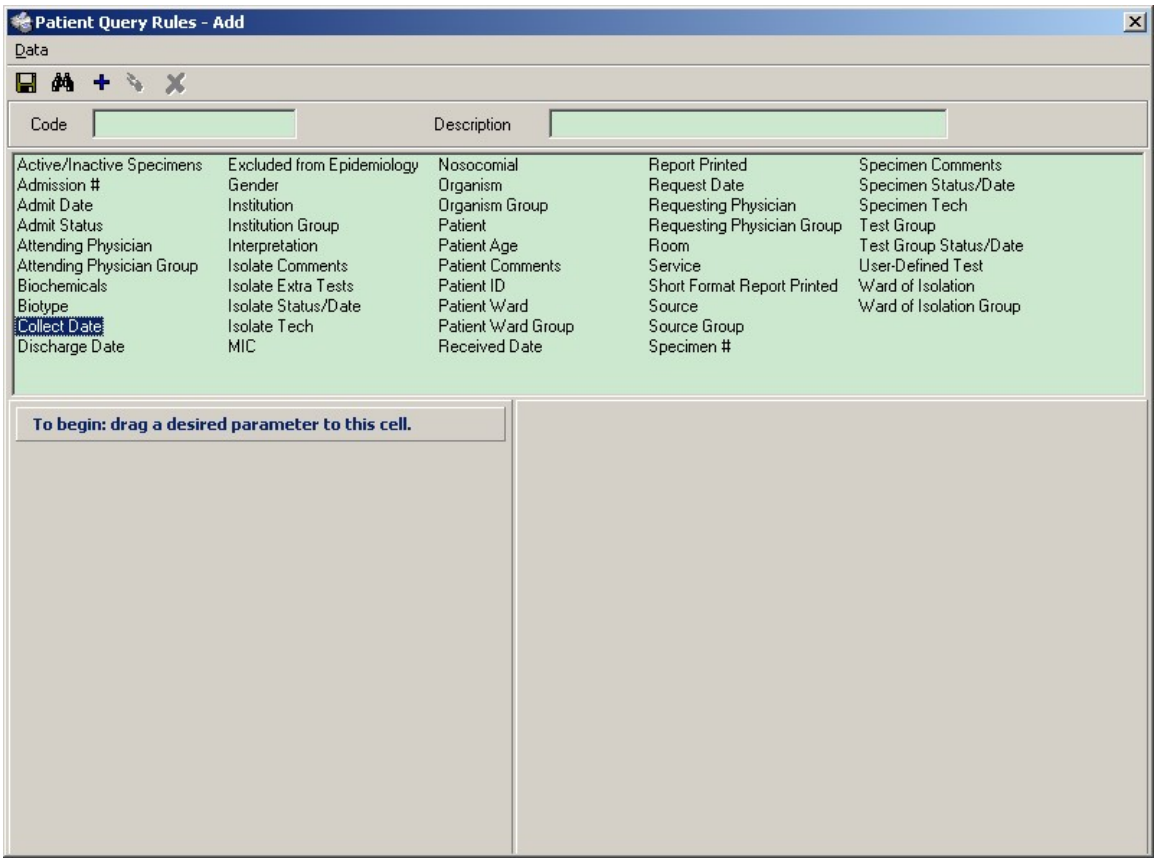
5) Click on the small dot/triangle in the top right section of the “Stored Queries Tab”

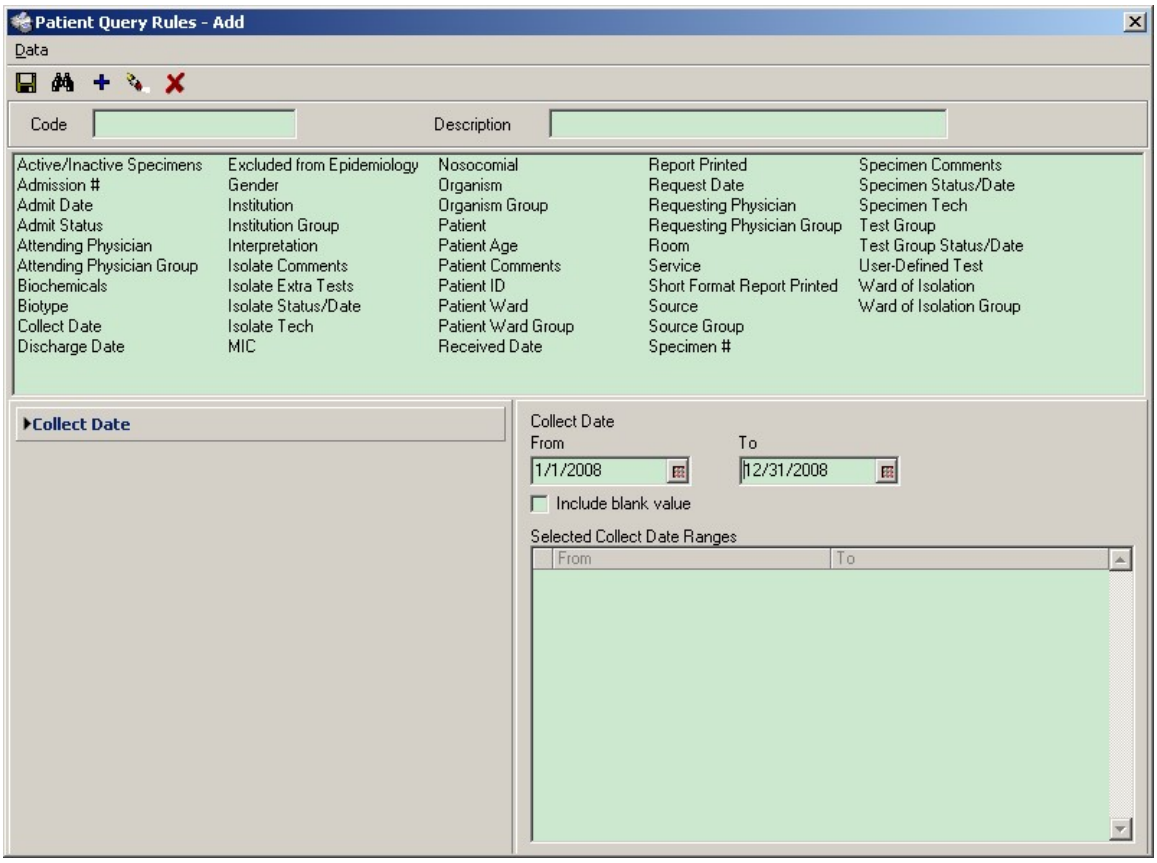


Click on the + sign to create a new Query

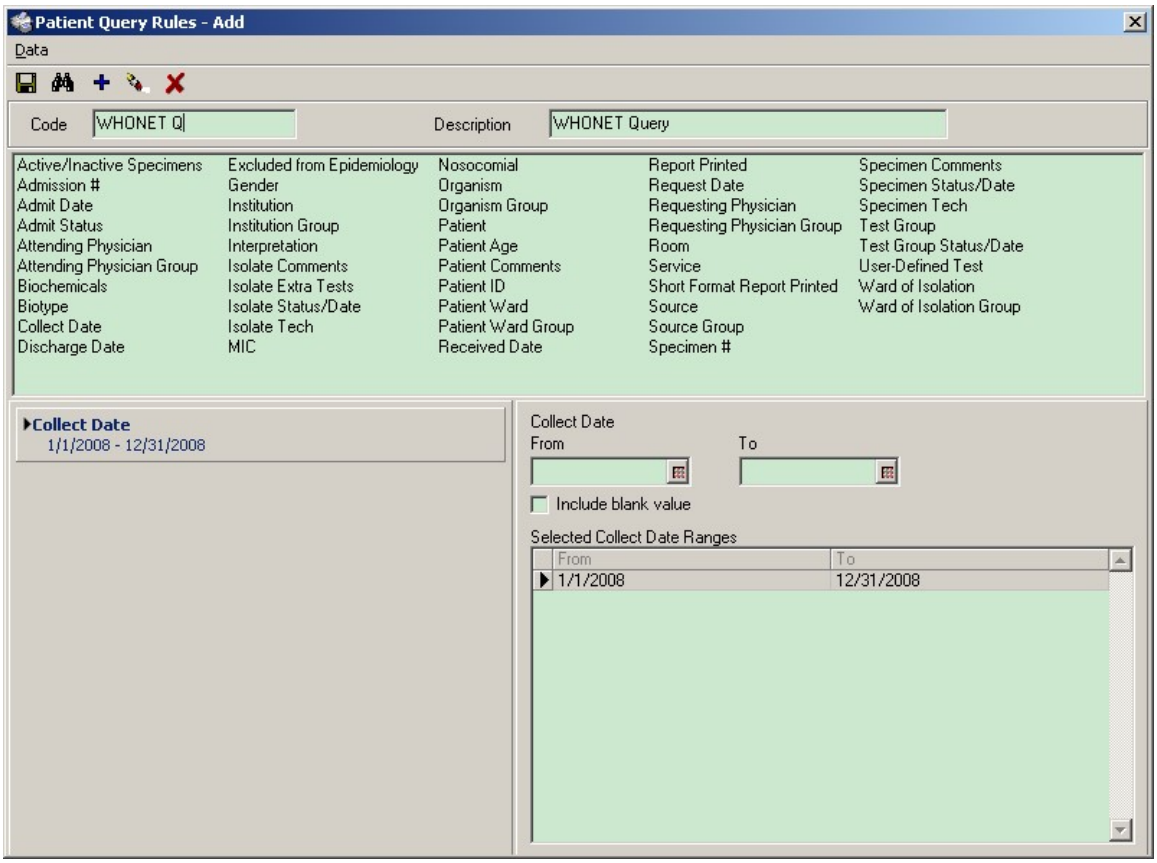


Click on the Code Tab and call it WHONET Q
Click on the Description Tab and call it WHONET Query
Click on “Collect Date” and drag it down to the column below it.


Patient Query Rules - Add
Data
Code
Description
Active/Inactive Specimens
Admission #
Admit Date
Admit Status
Attending Physician
Attending Physician Group
Biochemicals
Biotype
Collect Date
Discharge Date
Excluded from Epidemiology
Gender
Institution
Institution Group
Interpretation
Isolate Comments
Isolate Extra Tests
Isolate Status/Date
Isolate Tech
MIC
Nosocomial
Organism
Organism Group
Patient
Patient Age
Patient Comments
Patient ID
Patient Ward
Patient Ward Group
Received Date
Report Printed
Request Date
Requesting Physician
Requesting Physician Group
Room
Service
Short Format Report Printed
Source
Source Group
Specimen #
Specimen Comments
Specimen Status/Date
Specimen Tech
Test Group
Test Group Status/Date
User-Defined Test
Ward of Isolation
Ward of Isolation Group
To begin: drag a desired parameter to this cell.

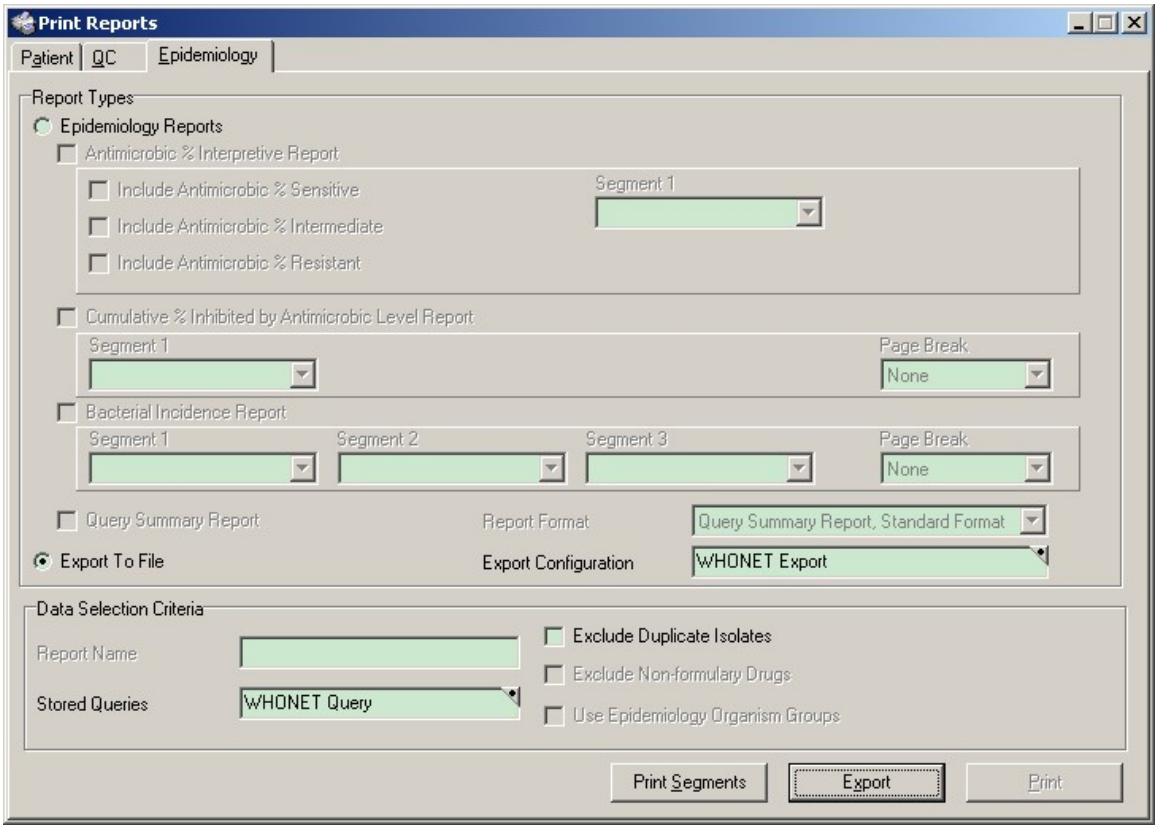


On the right hand side change the dates to whatever dates you would like.



On the top left of the screen click on the icon shaped like a floppy disk, the first one on the left right below the word “Data” to save this query.

Go Back to the main Epidemiology screen

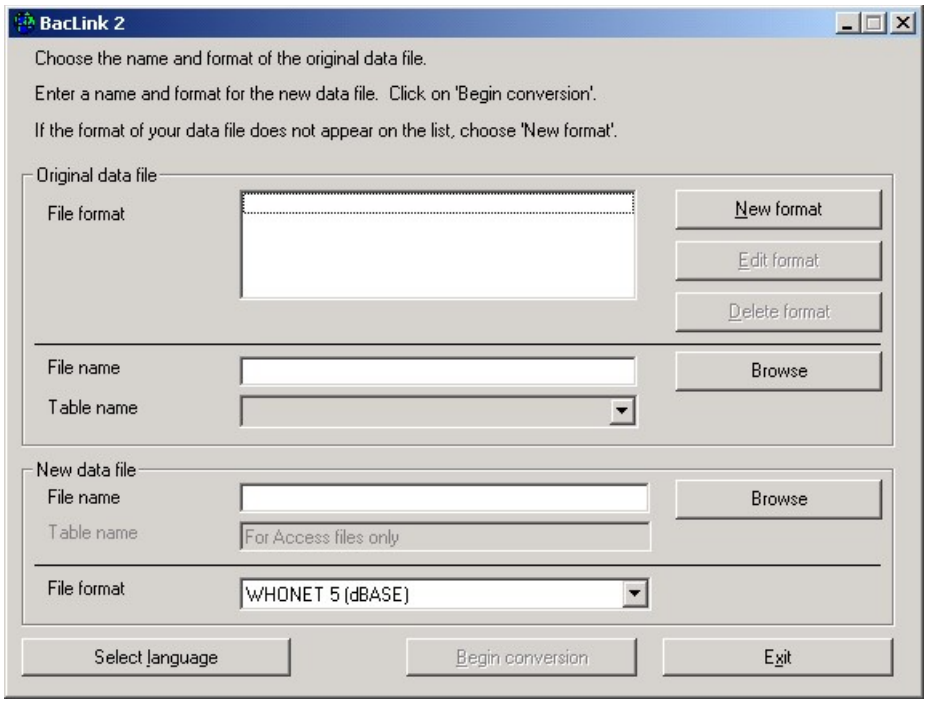


Click on “Export”
Save the file.

PART 3. CONVERTING THE FILE WITH BACLINK

Now that you have created a data file with the desired data, BacLink can be used to convert this export file to the WHONET file format. The below instructions are meant as a quick guide. Detailed instructions can be found in the BacLink manual, baclink2manual.doc, by default in the folder: c:\whonet5\docs.

Start the BacLink program by double-clicking on the BacLink shortcut icon installed on your desktop. The BacLink program screen appears.



1. *Configuring BacLink*

   The first time that you use BacLink, you will the tell the software what kind of data file you would like to import, as well as the name and a code for your laboratory.

   Click on the **New Format** button. The **File Format** screen opens.
   From the drop down box, select the **Country**: for example, *United States*.
   Enter the **Laboratory Name** – the name of your laboratory, for example *Boston General Hospital*. If you will potentially import data from a number of different sources (LabPro, Cerner, Excel, *etc.*), you may wish to indicate this in the laboratory name, for example *Boston General Hospital (LabPro)*.
   Enter up to three characters for the **Laboratory Code**, for example *BGH*. The laboratory code that you indicate will be used by BacLink and WHONET as the default file extension for your WHONET data files.

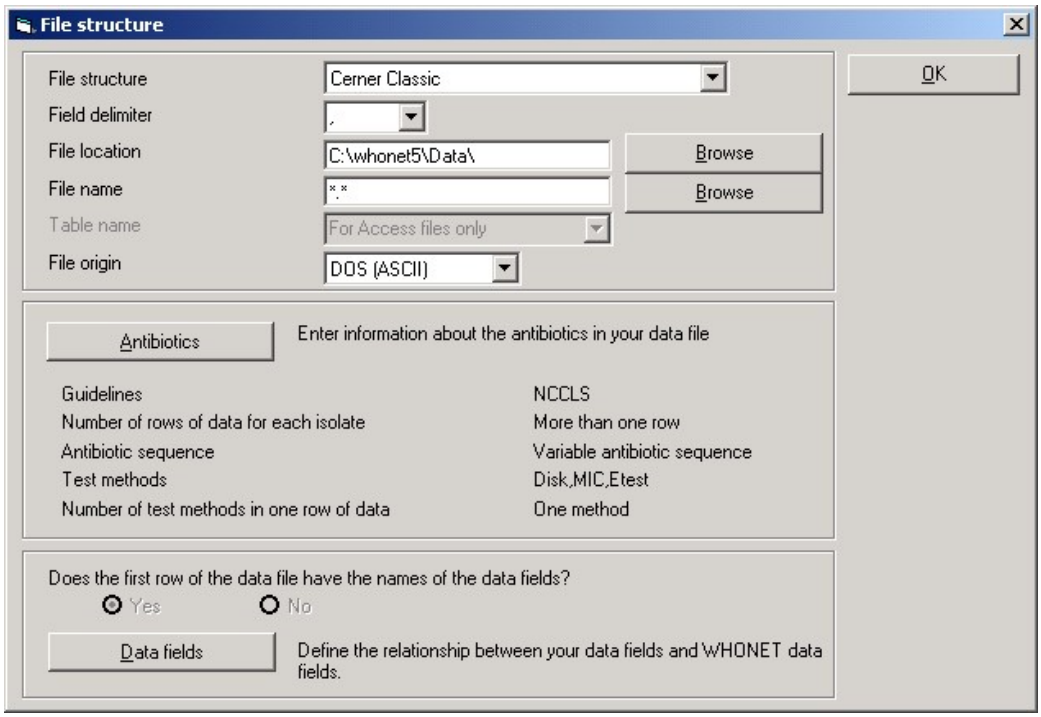
   Click on the **File Structure** button, and the below screen will appear. Set the selections as follows:

   File Structure – Vitek (Export)
   File Location – Indicate the folder where you plan to save your LabPro files. c:\whonet5\data is the default location suggested by BacLink, but any convenient location can be used. In many institutions, data files are placed in a folder on a central server.
   File Name – If your downloaded data files will generally end in ".txt", then leave the default response as "*.txt". Otherwise, indicate an appropriate filter which will facilitate finding your data files, for example: "*.*", "*.csv", "micro*.*", *etc.* If

the name of the downloaded data file will not change over time, you may indicate the fixed name, for example: "download.txt"

File Origin – Windows (ANSI)

Click on the **OK** button.



Though not required, you may wish to click on the **New data file** button. On this screen, you can indicate the default data **File location** for your new WHONET files. By default, BacLink will put the WHONET files in the same location as your original LabPro files. You can also indicate the name of the WHONET file that you will create, though it is generally more convenient to give a file name later, just before a file conversion, and not here on this screen. The default WHONET file name will have the three-letter laboratory code as the file extension.
Click on the **OK** button.

Click on **Save**. Give a name to the BacLink configuration file, which will save the above-indicated user selections, for example "bwh.cfg" or "labpro.cfg". You may give any valid Windows file name. BacLink will add ".cfg" as a file extension to indicate to BacLink that this is a configuration file.

Click on **Exit**. This will return you to the main BacLink screen. Your newly defined file format will appear on the list of formats available to you.

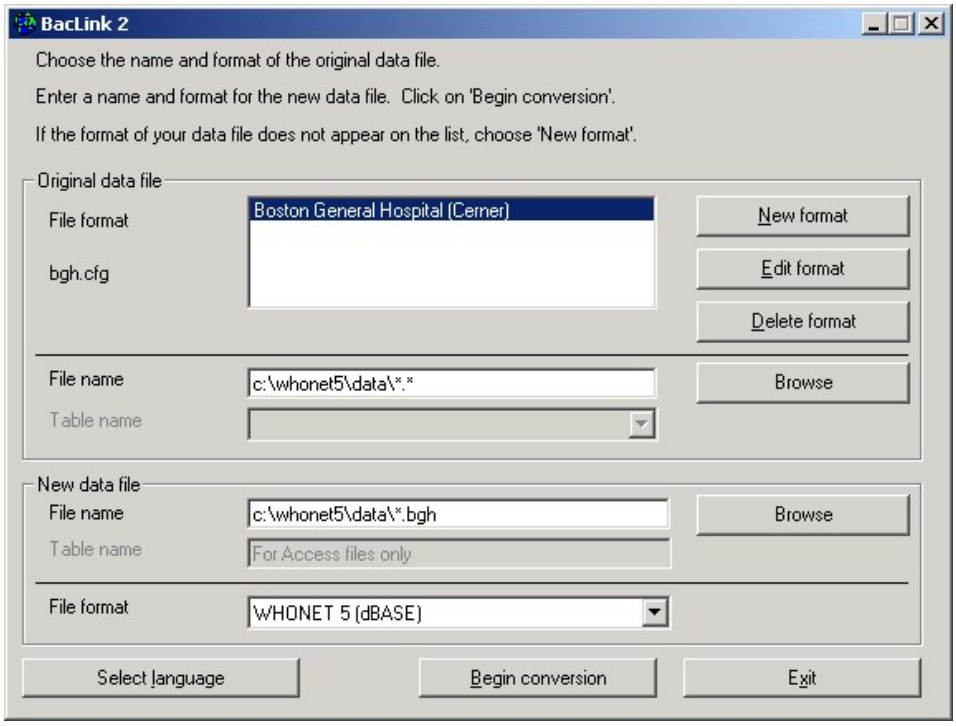
2. *Converting data with BacLink*

Original data file

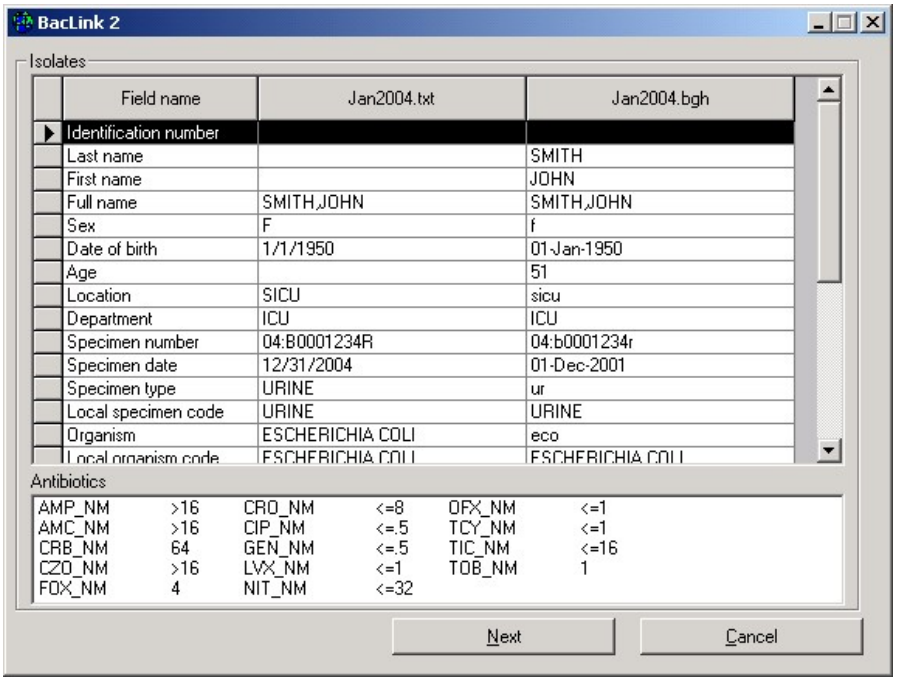
From the main BacLink screen, click on the File Format configured in the previous step. On the BacLink 2 screen under “Original data file”, “File name”, select the download file to be converted. Example c:\whonet5\data\jan2003.txt.

New data file

Enter a name for the new WHONET data file that you wish to create with your converted data. Example: c:\whonet5\data\jan2003.xxx, where ‘xxx’ refers to your three-letter laboratory code. Your screen should then look similar to the following:



Click on **Begin Conversion**. BacLink begins converting the downloaded delimited file to a WHONET 5 file. BacLink will show you the first three isolates to permit a visual inspection of the accuracy of the conversion. The information from your data file, as read by BacLink, appears to the left of the screen. The information which will be saved in the WHONET file appears to the right of the screen. Where appropriate, WHONET will change your codes and formats to those used by WHONET.



If you notice any discrepancies or errors in the field mappings, you may correct these from the main BacLink screen using “Edit format”. Click “Next” to advance through the first three isolates. BacLink will then continue until the file is completely converted.

If BacLink does not understand some of the data codes in your file, the program asks whether you would like to define the unrecognized codes. If you answer **Yes**, you will be shown a list of the various organism, antibiotic, specimen type, location, gender, and test result codes that could not be understand. Click on a variable of interest, such as “Organism”, and click **Define codes**.

You will subsequently be shown a list of each of the unrecognized code. Select a code and click **Define code**. For most variables (except Location), you will be asked to select the matching or closest term from a list of WHONET codes. For Location, you will have the option of defining the patient department and type (inpatient, outpatient, ICU, *etc.*). Continue defining codes until you have defined all, or at least the most important and frequent, data elements. When finished, click “OK”, “OK” to return to the main BacLink screen.

If you have defined some additional codes, you should then convert the same file a second time in order to include the new code matchings in the converted data file. When finished with BacLink, click **Exit**.

PART 4. GETTING STARTED WITH WHONET

Now that you have created a valid WHONET file using BacLink and your LabPro data, you can proceed to WHONET. For details on the use of WHONET, consult the manual WHONET 5.0 whonet5manual.doc, as well as available update pages describing the enhancements of further versions of the software.

1. *Creating a laboratory configuration*

To begin using WHONET, you must first create a "Laboratory configuration" with descriptive information about your laboratory -- antibiotics, breakpoints, patient locations, *etc.* For laboratories not using BacLink, this is typically done with a feature called **New laboratory**. However, for users of BacLink, there is a shortcut available called **Create a laboratory from a data file**.

Double-click on the WHONET icon. You will be shown a list of WHONET laboratories defined on your computer (with the default installation, you will see a single laboratory – "USA Test Hospital"). To access the aforementioned shortcut, click on **Cancel**. Then click **File** from the main WHONET menu, and then the option **Create a laboratory from a data file**.

You will be requested to indicate your country, laboratory name, and laboratory code. Enter the responses using the same country and laboratory code which you selected in BacLink.

You will then be requested to select a valid WHONET data file. Search and select for the file which you created above using BacLink. Then click **OK**. At this point, WHONET will scan the contents of this file – antibiotics, location codes, *etc.* – and create a valid WHONET laboratory configuration. When requested, you can click **Yes** if you want to review the details of the configuration. Otherwise, click **No**, and you can continue with Data analysis.

Note: After creating the configuration utilizing the here-described shortcut, further edits, such as any modifications to the antibiotic breakpoints, can be done with **Modify laboratory**.

2. *Using WHONET*

Once you have defined a laboratory configuration, it will appear in the list of laboratories when you enter WHONET. Click on your laboratory name. For data entry or data analysis options, click on **Open laboratory**. If you wish to modify the laboratory information in the configuration, click on **Modify laboratory**. For use of the WHONET analysis features, explore the screen display and/or consult the manual.