OLIS Mapping Tool User Guide

Nomenclature Toolkit

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Revision History

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Jan 31, 2013	4.3	Updated Test Request Dataset template.
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Authorized Reader

This document is authorized to the following organizational roles

Role(s)
• End Users

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1.0 Document Overview

1.1 Purpose of Document

This document provides information on the activities required to use the Ontario Laboratory Information System (OLIS) Mapping Tool and instructions on its installation and use. Use of the OLIS Mapping Tool is optional.

1.2 Intended Audience

This document is primarily intended to be used by laboratory personnel responsible for mapping laboratory tests using the OLIS Mapping Tool.

1.3 Desired Outcomes

Completion of all tasks in this document will result in:

- An understanding of the activities that require completion before use of the OLIS Mapping Tool

- The ability to install the OLIS Mapping Tool

- The ability to use the OLIS Mapping Tool

- The ability to address issues that result from use of the OLIS Mapping Tool

1.4 Reference Documents

- *Nomenclature Kick-Off Presentation*

- *A Guide to the OLIS Nomenclature*

- *Logical Observation Identifiers Names and Codes (LOINC) User Guide* (Refer to http://loinc.org/downloads/files/LOINCManual.pdf)

2.0   Before You Begin

2.1   What is the OLIS Mapping Tool?

The OLIS Mapping Tool is a Microsoft Access based application that aids in the search and mapping[1] of Laboratory Information System (LIS) codes (i.e. local test request (order) [2,] specimen (source), microorganism names and test result codes) to the OLIS Nomenclature (OLIS Test Requests, Test Results. Microorganism list, Specimen (Source) Nomenclature) (Refer to "*A Guide to the OLIS Nomenclature*" for more information). The OLIS Mapping Tool imports local files, associates these files with preloaded OLIS Nomenclature and exports mapped files into a variety of formats.

2.2   Why Use the OLIS Mapping Tool?

The OLIS Mapping Tool supports a systematic and comprehensive approach to the mapping of local Laboratory Information System (LIS) codes to the OLIS Nomenclature. The OLIS Mapping Tool automates the mapping process and results in consistent and reliable mapping of local laboratory test request, specimen (source) and test result codes. The OLIS mapping tool directly maps the specimen and microorganism codes.

The benefits of using the OLIS Mapping Tool are it: automatically documents and tracks who performed mapping of the test request, test result codes, microorganism names, Specimen (Source) and when it was performed; allows comments to be added to each record; and can be stored in a format that is consistent with other OLIS Adopters so that it can be more easily interpreted and compared. The OLIS mapping tool allows for the pairing of Test Request and Test Results.

2.3   About the OLIS Mapping Tool

When using the OLIS Mapping Tool, users should be aware of the following:

- It is continually being refined. For this reason, the most current OLIS Mapping Tool must correspond with the most current OLIS Nomenclature

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[1] Mapping is the process of matching an OLIS code and description to an organization's local code and description.

[2] An Order is a collective term used to refer to one or more test requests.

- To download the OLIS Mapping Tool, the user must first be registered for access to the OLIS Program Collaboration Portal. Even as a zipped file it is too large to be emailed

- It has known issues that need to be manually addressed (*Refer to Section 11*)

2.4 Expectations

Mapping of local LIS codes is expected to be completed by subject matter experts who understand in detail the methodology and the principle of laboratory procedures. Subject matter experts performing the mapping are responsible for selecting appropriate codes for each test request, test result microorganism, specimen and submit a code request to the OLIS Business Service Desk (BSD) when the correct test code is not available (Refer to "*A Guide to the OLIS Nomenclature*" for more information on this process).

2.5 Pre-Mapping Activities

Before the mapping process can begin, the steps outlined in *Sections 2.5.1-2.5.3* must be completed.

2.5.1 Laboratory Test Dataset Clean-up

Before mapping can occur, the local laboratory test requests, test results, microorganism and specimen datasets must be cleaned. This includes:

- Eliminating any duplicate codes by deleting them or uniquely renaming them. For example:

  ➢ If a single local test request code requires mapping to the same OLIS test request code but with more than one specimen (source) code, only the latter mapping will be retained. To correct this, create a new local source code

- Ensuring that no local test request or test result code is reused

- Populating metadata for each test request or test result code. This includes:

  ➢ Code mnemonic as well as descriptive name

  ➢ Inactive flag or end date to designate codes that are no longer active (i.e. no longer used as part of new data)

  ➢ Clinical discipline and sub-type (e.g., Hematology with sub-type coagulation)

  ➢ If the code is for a single test or for a group (battery/panel/profile) test. **Note**: Most group tests will need to be mapped at the level of single tests within group tests

2.5.2 Laboratory Test Dataset Extracts

After the laboratory test requests and test results datasets have been cleaned, an extract (ASCII format or CSV) of the local laboratory datasets must be obtained for

each Clinical discipline of an organization's laboratory information system (LIS). This must take place from the Production or Live system, not the test system. Refer to *Section 4* for information on extracting these files.

2.5.3   Obtain Access to the OLIS Mapping Tool

Registration with eHealth Ontario must be completed in order to obtain access to the OLIS Program Collaboration Portal. Registration can take a few weeks and should begin early to avoid delays in performing mapping activities. Once access credentials are provided, the OLIS Mapping Tool can be downloaded from the OLIS Collaboration Portal. A zipped file will contain the most current version of the OLIS Mapping Tool and the OLIS Nomenclature.

3.0 Installation Guide

3.1 Background

This section provides detailed information on the system requirements for using the OLIS Mapping Tool and the steps required to install and update this Tool. The most current version of the OLIS Mapping Tool must be used to ensure mapping takes place with the most current OLIS test request and test result codes.

3.2 System Requirements

The OLIS Mapping Tool consists of three Microsoft Access 2003 database files listed below.

OLIS_MAP_d.   **OLIS Results, Requests and Source tables**
OLIS_MAP_s   **Microsoft Access application**
OLIS_MAP_Local_d   **locally mapped tables**

Note: These files cannot be renamed or altered.

Microsoft Access must be installed on the computer on which the OLIS Mapping Tool will be used. Installation of these files is a manual process and will require a basic understanding of managing a Microsoft Windows file structure. Table 3-1 provides detailed information on the system requirements for using the OLIS Mapping Tool.

Hardware/Software	Minimum Requirements
Processor	Intel Pentium III or higher
Operating System (OS)	Windows XP Windows 2000 Windows Vista Windows Tablet PC
Memory	Min 128 MB
Hard-disk space	100 MB
Browser	IE 6.0 service pack 2 or higher
Installed Software	Microsoft Access 2003, Excel 2003 and Excel 2003 (Workbook)

Table 3-1: System Requirements

3.3   Installing the OLIS Mapping Tool

To install the OLIS Mapping Tool, a folder of three Microsoft Access 2003 files must be created. This requires following these steps:

1. Create the following folder structure: C:\Program Files\ OLIS_MAP

2. Copy the three database files into the folder OLIS_MAP

3. Create a shortcut to the OLIS_Map_s.mde and place this shortcut at a convenient location such as on the Desktop or Start Menu

To create a shortcut on your Desktop:

1. Right-click on the OLIS_Map_s file in the OLIS_MAP folder

2. Drag the mouse pointer along the drop-down menu until "Send to" is highlighted

3. Left-click on "Desktop"

4. Double click on this Desktop shortcut to begin using the OLIS Mapping Tool

3.4   Updating the OLIS Mapping Tool

New versions of the OLIS Nomenclature are released together with an updated version of the OLIS Mapping Tool. Like any update, there is a risk of losing data if the following steps are not followed. The OLIS mapping tool allows for one working version on the computer, so other version must be removed or arhived. Therefore, it is good practice to back up the files and zip them, before installing the updated OLIS Mapping Tool. Previous versions of local test codes, OLIS test codes and mapped codes will all be overwritten when the new OLIS Mapping Tool is installed. Backing up, or exporting the mapped test codes will safeguard the work the user has done in previous mapping sessions. This step is especially important if a user requires a complete listing of test codes to be uploaded to the LIS to OLIS interface (rather than a file that includes only newly mapped test codes).

To update the OLIS Mapping Tool:

1. Export local laboratory test dataset files. Refer to *Section 10* for instructions. Keep these files safe since they will be imported into the new OLIS Mapping Tool

2. Create a new folder in the directory C:\Program Files\OLIS_Map and name it "ORIGINAL"

3. Copy the existing 3 OLIS Mapping Tool files into this folder C:\Program Files\OLIS_MAP\ORIGINAL (OLIS_MAP s, OLIS_MAP_Local_d, OLIS_MAP_d)

4. The original OLIS Mapping Tool files have now been preserved. The user can revert back to the previous version, if needed. The folder "ORIGINAL" may be archived at a later date after it has been established that the updated OLIS Mapping Tool is functioning as expected

5. Delete the three OLIS Mapping Tool files from C:\Program Files\OLIS_Map

6. Copy the three updated OLIS Mapping Tool files into C:\Program Files\OLIS_Map

7. Double click on the OLIS Mapping Tool shortcut icon. If the OLIS Mapping Tool application opens, proceed to the next step. If an error message is received, contact the OLIS BSD

8. Import the exported local laboratory test dataset files. Refer to *Section 5* for instructions

9. The OLIS Mapping Tool is ready for use

Usage Tip:

The size of the Access files are not an indication of the number of entries that are within a file. As these files are used, they become larger in size due to unformatted space in their data structure. A newly created database can easily amount to being over 1 megabyte in size without data. For this reason, it is recommend that these files are regularly "Compacted and Repaired" to improve performance. To automatically compact and repair a database, complete the following tasks:

1. Click on the "Microsoft Office Button", and click "Access Options";

2. In the "Access Options" dialog box, click on "Current Database"; and

3. Under "Application Options", select the "Compact on Close" check box.

Note: Each time a Microsoft Access file is opened and then closed, the "Date Modified" is updated to the current date in Windows Explorer.

Usage Tip:

If the lower portion of the Mapping screen is not immediately displayed.
  ➢ **Solution:** Turn off the Ribbon. This can be done by right clicking on the

  Microsoft Office Button , and then clicking "Minimize the ribbon".

4.0   Extraction of Local Laboratory Test Datasets

4.1   Background

Before using the OLIS Mapping Tool, an extract of the local laboratory test datasets need to be created. This section provides detailed information on how to create a: Local laboratory test requests dataset extract and; Local laboratory test result dataset extract.

4.2   Extraction of File Specifications

The dataset files must conform to the specifications outlined in the following sections.

4.2.1   File Format

The extract file must be in either MS Excel (97- 2003), or in ASCII delimited file format (e.g., .txt or .csv).

4.2.2   Data Element Headers

The dataset in the extract file should have data element headers (e.g., "Test Code", "Test Name", "Category" etc.) for convenience. However, this is not required for text files, but is mandatory for MS Excel.

4.2.3   Data Separators for ASCII Text files

The data in the extract file must be separated by one of the following text separators:

Tab:

- Semicolon (:)
- Comma
- Space
- Vertical Bar, pipe (|)

4.2.4   Text Qualifiers

Data values within the dataset may have following data qualifiers:

- Double quote (")
- Single quote (')
- None

4.3   Creating a Local Laboratory Test Requests (Orders) Dataset

To facilitate the mapping of test request codes, the local laboratory test requests dataset should each contain the data values in the order outlined in Table 4-1.

If the test request file is in MS Excel format, it must take the form of a (97-2003) worksheet. The files should then be extracted in the order outlined and with the Column headers shown in Table 4-1. Inserted is an Excel template that can be downloaded and used for Test Requests

Order	Metadata/Attribute	Mandatory / Optional	Column heading	Details/ Examples
1	Local Test Code	Mandatory	Local_Code_Mnemonic	BLDCBC15
2	Facility	Optional	Facility	A Mnemonic used to identify different sites within your organisation
3	Local Test Name	Mandatory	Local_Name	CBC
4	Local Test Class Category	Mandatory if applicable	Local_Category	Hematology, Biochemistry, Coagulation, Blood bank, Microbiology, Pathology)
5	OLIS Test Request Code	Mandatory when mapped	OLIS_Code	TR10482-8
6	OLIS Test Request Name	Mandatory when mapped	OLIS_Test_Request_Name	Leukocyte Count
7	OLIS Specimen Value (Code)	Mandatory when mapped	Specimen_value	PLR
8	OLIS Specimen Description	Mandatory when mapped	Specimen_Description	Pleural Fluid
9	OLIS Specimen Site Modifier	Mandatory when mapped	Specimen_Site_Modifier	Exudate
10	OLIS Comments	To be entered by OLIS	Comments	Used by OLIS. This is a free-text field and is not editable
11	Local Comments	Optional, to be entered by site	Local_Comments	Description of the code (e.g., code used for white count in Pleural Fluid or note to self. It is a free-text field that is used at the user's discretion)
12	Mapping Date	No (auto populated when mapped)	Mapping_Date	yyyy-mm-dd hh:mm:ss
13	Mapping User	No (auto populated when mapped)	Mapping_User	Name of the user that is logged onto the computer

14	Sort key	Mandatory when mapped	Sort_Key	1000.01,1000.02 or 1, 2, 3, 4, etc
15	Group/Panel	No (auto populated when mapped)	Group_or_Panel	CBC256, ELT001, BC
16	Group/Panel Name	No (auto populated when mapped)	Group_Panel_Name	Complete Blood count, Electrolytes, Blood count

Table 4-1: Local Laboratory Test Requests Dataset

Test Requests
Dataset.xls

Usage Tip:

The spelling of the Metadata descriptors (column headings) is important, for txt or CSV files and the relative order of their association is important. For Excel files the format must be Excel 97-2003 (Excel 2007 file format is not compatible).

If the user has manually mapped local test request codes to the OLIS Test Requests Nomenclature and wants to validate this mapping, the user can populate mapping information in Table 4-1 to load this mapping into the OLIS Mapping Tool. If the user has not previously performed mapping, fields 4 to 13 will be blank. In this case, it must be specified that no data is available for these fields (Refer to the dataset examples below).

4.3.1 Dataset Example 1:

The following dataset example contains data element headers and local data values, a comma (,) as the text separator and a double quote (") as a text qualifier. The "OLIS" fields are empty since the user has not conducted mapping before. However, missing data must be specified with double quotes ("").

"Local Code", "Local Name", "Local Category", "OLIS Code", "OLIS Name", "OLIS" "Spec Code", "OLIS Spec Description", "OLIS Site modifier", "Comments", "Local Comments", "Mapping Date", "Mapping User", "Sort key", "Group/Panel", "Group/Panel Name"

"CBC256", "CBC", "Hematology", "","","","","","","","","","","","",

"HCT829", "Hematocrit", "Hematology", "","","","","","","","","","","","",

"HGB903", "Hemoglobin", "Hematology", "","","","","","","","","","","","",

"MCH902", "MCH", "Hematology", "","","","","","","","","","","","",

4.3.2   Dataset Example 2:

The following dataset example contains only local data values and a comma as the text separator. There are no data element headers or text qualifiers.

CBC256,CBC,Hematology,,,,,,,,,,,
HCT829,Hematocrit, Hematology,,,,,,,,,,,
HGB903,Hemoglobin, Hematology,,,,,,,,,,,
MCH902,MCH, Hematology,,,,,,,,,,,

4.3.3   Dataset Example 3:

The following dataset example contains local and OLIS data values as well as a comma as a text separator. There are no data element headers or text qualifiers.

CBC256,CBC,Hematology,TR10477-8,Complete Blood Count,BLD,Blood,,,,,,,
HCT829,Hematocrit, Hematology,TR10480-2,Hematocrit,BLD,Blood,,,,,,,
HGB903,Hemoglobin, Hematology,TR10481-0,Hemoglobin,BLD,Blood,,,,,,,
MCH902,MCH, Hematology,TR10483-6,MCH,BLD,Blood,,,,,,,

4.3.4   Dataset Example 4:

Figure 4-1 provides a dataset file example that contains local and OLIS data values for MS Excel format files. The extract template file is inserted under Figure 4-1 for Test Request.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Local_Code_Mnemonic	Facility	Local_Name	Local_Category	OLIS_Code	OLIS_Tes	Specimen_Value	Specimen	Specimen	Comments	Local_Cor	Mapping_Date	Mapping_	Sort_Key	Group_Or	Group_Panel_Name	
2	2GTT		2h GLUCOSE TOLERANCE TEST	CHEMISTRY	TR10213-7	Glucose T	SER/PLAS	Serum/Plasma				2012-10-03 11:45:19	Lisa				
3	5GTT		5h GLUCOSE TOLERANCE TEST	CHEMISTRY	TR10216-0	Glucose T	SER/PLAS	Serum/Plasma				2012-10-03 11:45:19	Lisa				
4	DIAL24		24 h DIALYSATE	CHEMISTRY	TR11801-8	Chemistry	DIAF	Dialysis fluid				2012-10-03 11:45:19	Lisa				
5	ACET		ACETAMINOPHEN	CHEMISTRY	TR10122-0	Acetamin	SER/PLAS	Serum/Plasma				2012-10-03 11:45:19	Lisa				
6	ALB		ALBUMIN (PLASMA)	CHEMISTRY	TR10010-7	Albumin	PLAS	Plasma				2012-10-03 11:45:19	Lisa				

Figure 4-1: Test Requests Dataset File Example

Test Requests
Dataset.xls

4.4 Creating a Local Laboratory Test Results Dataset

To facilitate the mapping of test result codes, the local test results dataset should contain the data values in the order presented in Table 4-2:

Order	Metadata/attribute	Mandatory/ Optional	Column heading	Details/ Examples
1	Local Test Code	Mandatory	Local_Code_Mnemonic	ERYBLD, 26ERY, 2873, 3894-9...
2	Local Name	Mandatory	Local_Name	Erythrocytes, Leukocytes…

3	Local Units of Measure	Optional	Local_Units	X 10e3/mm3, mmol/l, mg…
4	Local Method	Optional	Local_Method	Manual, ELISA, RIA…
5	Local Category	Optional	Local_Category	Hematology, Urinalysis…
6	Local LOINC Code	Optional	Local_LOINC_Code	789-8, 790-6, 26453-1…
7	OLIS LOINC Code	Optional	OLIS_Code	790-6,
8	OLIS LOINC Full Name	Optional	OLIS_LOINC_Fully_Specified_Name	ERYTHROCYTES:NCNC:PT:BLD:QN:MANUAL COUNT
9	Comments	Optional	Comments	Used by OLIS. This is a free-text field and should not be edited
10	Local Comments	Optional	Local_Comments	This is a free text field that can be used to make notes or to explain mapping
11	Mapping Date	Optional	Mapping_Date	yyyy-mm-dd hh:mm:ss
12	Mapping User	Optional	Mapping_User	Name of the user that is logged onto the computer
13	Sample Value	Optional	Sample_Value	23 mg/L. Postive etc
14	Sort key	Optional	Sort key	100.01, 100.02 or 1,2,3,4 etc
15	Data Type	Optional	Data_Type	HL7 datatype, TXT, NM, SN etc
16	Code System	Optional	Code_System	Facility that is sending the code
17	Group_Panel_Name	No (auto populated when mapped)		
18	Sample Value	Optional	Sample_Value	3.3 mg/L, negative, Positive etc

Table 4-2: Local Laboratory Test Results Dataset

Note: The spelling of the Metadata descriptors (row column headings) is not important, but the relative order of their association is important. For Excel files the format must be Excel 97-2003 (Excel 2007 file format is not compatible).

4.4.1 Dataset Example 1:

The following dataset contains, data element headers and data values, a comma (,) as the text separator (delimiter), and a double quote (") as the text qualifier. In this example, the "Local LOINC Codes", "OLIS LOINC Codes" and "OLIS Full Name" fields have no values (""). However, these fields must still be included in the file to maintain the file structure.

"Local_Code_Mnemonic","Local_LOINC_Code", "Local_Name","Local_Category", "Local_Units", "Local_Method","OLIS_Code", "OLIS_LOINC_Fully_Specified_Name", "Comments", "Local_Comments", "Mapping_Date", "Mapping_User", "Sort_Key", "Data_Type", "Code_system", "Group_Panel_Name", "Sample_Value"

"ERY1","Erythrocytes","x10e3/mm3","Man","Hem", "","","","","","","","","","","","",

"PLT2","Thrombocytes","x10e3/mm3","Man","Hem","","","","","","","","","","","","",""
"EOS2","Eosinophils","x10e3/mm3","Man","Hem","","","","","","","","","","","","",""

4.4.2 Dataset Example 2:

The following dataset contains data values but does not include data element headers. The file also contains a comma as the text separator but does not contain any text qualifiers. In this example, the "Local LOINC Codes", "OLIS LOINC Codes" and "OLIS Full Name" fields have no values (""). However, these fields must still be included in the file to maintain the file structure.

ERY1,Erythrocytes,x10e3/mm3,Man,Hem,,,,,,,,,,,,,

PLT2,Thrombocytes,x10e3/mm3,Man,Hem,,,,,,,,,,,,,

EOS2,Eosinophils,x10e3/mm3,Man,Hem,,,,,,,,,,,,,

4.4.3 Dataset Example 3:

The following dataset contains data values but no data element headers. The file also contains a comma as the text separator but does not contain a text qualifier. The "Local LOINC Code" field is empty but still needs to be included (between the two commas) to maintain file structure.

Note: The spaces between individual records have been provided for readability purpose only.

ERY1,Erythrocytes,x10e3/mm3,Man,Hem,,790-6,ERYTRHOCYTES:NCNC:PT:BLD:QN:MANUAL COUNT,,,,,,,,

PLT2,Thrombocytes,x10e3/mm3,Man,Hem,,778-1,,,,,,,,,,

ERYTRHOCYTES:NCNC:PT:BLD:QN:MANUAL COUNT,,,,,,,,,,,
EOS2,Eosinophils,x10e3/mm3,Man,Hem,,712-0,
EOSINOPHILS:NCNC:PT:BLD:QN:MANUAL COUNT,,,,,,,,,,,

4.4.4 Dataset Example 4:

Figure 4-4 provides a dataset file example that contains dataset column headers for Excel (97-2003). This file can be obtained from the OLIS Program Coordinator, on request or downloaded from the embedded file under Figure 4-2

	A	B	C	D	E	F	G	H	I	J	K	
	Local_Code_Mnem	Local_Name	Local_Units	Local_Method	Local_Catego	Local_LOINC_Cc	OLIS_Code	OLIS_LOINC_Fully_Specified_Name	Comments	Local_Comments	Mapping_Date	Mapp
ERY1		Erythrocytes	x10e3/mm3	Man	Hem		26453-1	Erythrocytes:NCnc:Pt:Bld:Qn	Check with site	Done in Chem	2010-09-03 00:59:05	anil.p
LYM5		Lymphocytes	x10e3/mm3	Man	Hem		11130-2	Lymphocytes B:NCnc:Pt:Bld:Qn			2010-09-10 00:36:20	anil.p

Figure 4-2: Test Results Dataset File Example (Excel)

Test Result data.xls

4.5 Creating a Local Laboratory Microorganism Dataset.

To facilitate the mapping of Microorganism codes, the local Microorganism dataset should contain the data values in the order presented in Table 4-3:

Order	Metadata/attribute	Mandatory/ Optional	Column heading	Details/ Examples
1	Local Code	Mandatory	Local_Code	ABIO_Defectiva, 2873, 3894-9...
2	Local Organism Name	Mandatory	Local_Organism_Name	Abiotrophia defectiva, Abiotrophia sp …
3	OLIS Microorganism Code	Mandatory when mapped	OLIS_Microorganism_Code	M01554
4	Microorganism Name	Mandatory when mapped	Microorganism_Name	Abiotrophia defectiva
5	Microorganism Type	Mandatory when mapped	Microorganism_Type	Bacteria
6	Comments	Optional	Comments	Used by OLIS. This is a free-text field and should not be edited
7	Local Comments	Optional	Local_Comments	This is a free text field that can be used to make notes or to explain mapping
9	Mapping Date	Mandatory when mapped	Mapping_Date	yyyy-mm-dd hh:mm:ss
9	Mapping User	Mandatory when mapped	Mapping_User	Name of the user that is logged onto the computer

Table 4-3: Local Laboratory Microorganism Dataset

4.5.1 Dataset Example 1:

The following dataset contains, data element headers and data values, a comma (,) as the text separator (delimiters), and a double quote (") as the text qualifier. In this example, the "Local Microorganism Code", "Local Microorganism Name" fields have values. However, these fields must still be included in the file to maintain the file structure.

Local Code, Local Organism Name, OLIS Microorganism Code, Microorganism Name, Microorganism Type, Comments, Local Comments, Mapping Date, Mapping User

ABIO_DEFECTIVA,Abiotrophia defectiva,,,,,,,,,

ABIO_SPECIES,Abiotrophia sp.,,,,,,,,

ABSIDIA_CORYMBIFERA,Absidia corymbifera,,,,,,,,

ABSIDIA_SP,Absidia sp.,,,,,,,,

ACANTHAMOEBA,Acanthamoeba sp.,,,,,,,,

4.5.2 Dataset Example 2:

Table 4-3 provides a dataset file example that contains dataset column headers for Excel (97-2003). This file can be obtained from the OLIS Program Coordinator, on request or downloaded from the embedded file below

Microsoft Office
Excel 97-2003 Worksl

4.6 Creating a Local Laboratory Specimen (Source) Dataset.

To facilitate the mapping of Specimen (Source) codes, the local Specimen dataset should contain the data values in the order presented in Table 4-6:

Order	Metadata/attribute	Mandatory/ Optional	Column heading	Details/ Examples
1	Local Specimen Code	Mandatory	Local_Code_Mnemonic	24HU,
2	Local Specimen Description	Mandatory	Local_Description	Urine, 24 Hour
3	Local Comments	Optional	Local_Comments	This is a free text field that can be used to make notes or to explain mapping
3	Specimen Value	Mandatory when mapped	Specimen_Value	24H
4	OLIS Specimen Description	Mandatory when mapped	Specimen_Description	Urine 24 Hour
5	Specimen Comments	Mandatory when mapped	Specimen_Comments	Used by OLIS. This is a free-text field and should not be edited
9	Mapping Date	Mandatory when mapped	Mapping_Date	yyyy-mm-dd hh:mm:ss
9	Mapping User	Mandatory when mapped	Mapping_User	Name of the user that is logged onto the computer

Table 4-6: Local Laboratory Specimen (Source) Dataset

4.6.1   Dataset Example 1:

The following dataset contains, data element headers and data values, a comma (,) as the text separator (delimiters), and a double quote (") as the text qualifier. In this example, all fields have been populated.

"Local SpecimenCode", "Local Specimen Description", "Local Comments", "Specimen Value", "OLIS Specimen Description", "Specimen Comments", "Mapping Date", "Mapping User"

Example 1

"24 Hours","24 Hours – Urine","24H","24H","Urine 24 Hour","","2011-09-07 16:36:07","tammy.chan"

4.6.2   Dataset Example 2:

The following dataset contains, data element headers and data values, a comma (,) as the text separator (delimiters), and no text qualifier. In this example, only the mandatory fields have been populated, the "Local Specimen Code", "Local Specimen Description". The first line contains the header.

Local_Code_Mnemonic,Local_Description, Local_Comments, Specimen_Value,Specimen_Description, Specimen_Comments,Mapping_Date,Mapping_User

24 Hours,24 Hours - Urine,,,,,

Sputum,SPT,,,,,

Leukocytes,WBC,,,,,

Blood,BLD,,,,,

4.6.3   Dataset Example 3:

Table 4.6 provides a dataset file example that contains dataset column headers for Excel (97-2003). This file can be obtained from the OLIS Program Coordinator, on request or downloaded from the embedded file below in this document.

Specimen data.xls

5.0   Importing and Managing Local Laboratory Test Datasets

5.1 Background

This section provides detailed information on the steps required to import and manage local laboratory test datasets.

5.2 The OLIS Mapping Tool Main Menu

When starting the OLIS Mapping Tool application, a Security Warning screen is displayed (Figure 5-1): The image on the left would be seen when using Access 2007. If Access 2003 is used the image on the right would be seen.

Access 2007	Access 2003
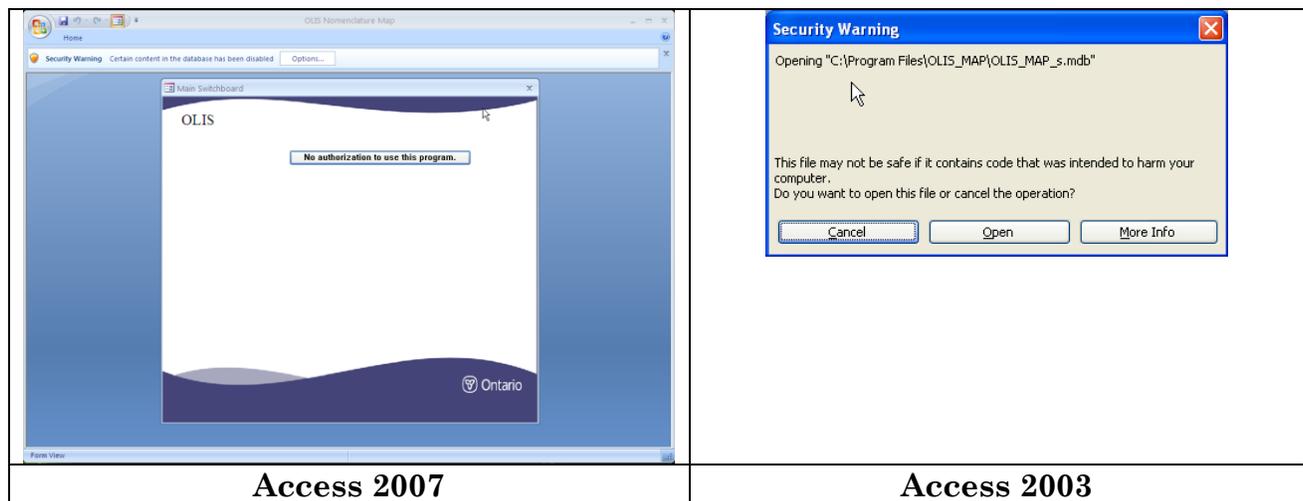
Figure 5-1: Security Warning Screen

In Access 2007 select "Options" and select " Enable this content" from Security Alert window (Fig 5.2)to proceed to the Main Menu screen display (Figure 5-3).

In Access 2003 select "Open" from Security Alert window (Fig 5.2)to proceed to the Main Menu screen display (Figure 5-3).

Figure 5-2: Security Warning Screen
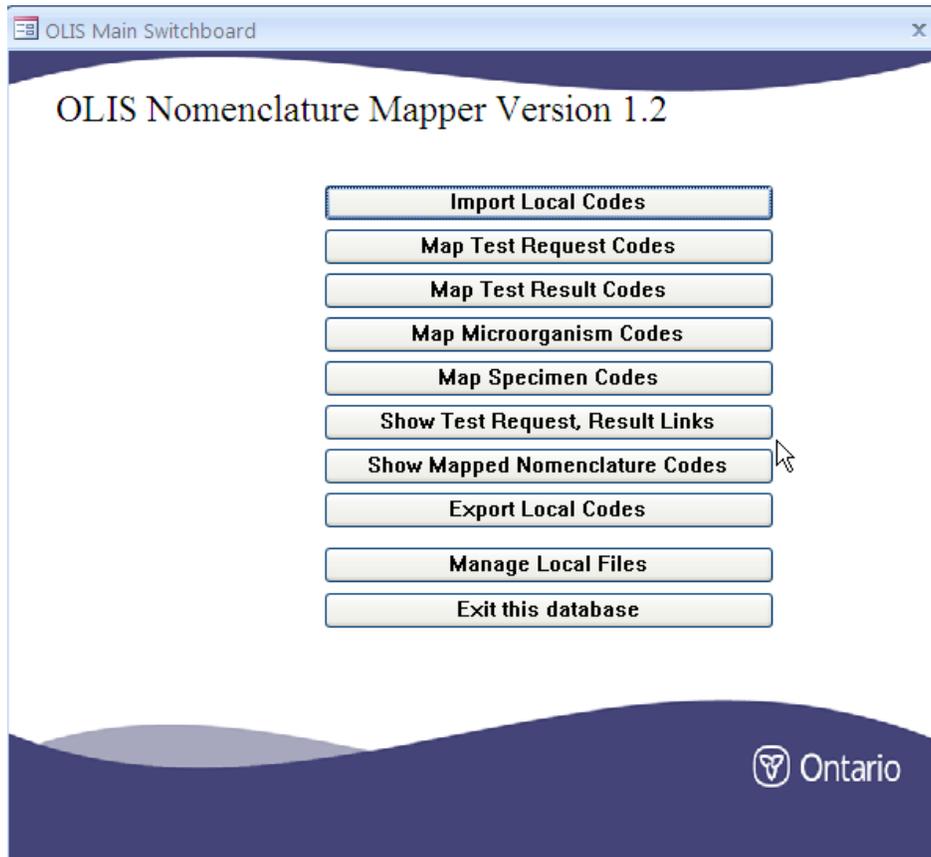
Figure 5-3: OLIS Mapping Tool Main Menu Screen

The Main Menu screen provides links to the following functions:

1. Import Local Codes: Used to import both the local laboratory test requests, test results, Microorganism and specimen (source) dataset into the OLIS Mapping Tool
2. Map Request Codes: Used to start or continue mapping between the imported local test requests dataset and the OLIS Test Requests Nomenclature
3. Map Result Codes: Used to start or continue mapping between the imported local test results dataset and the OLIS Test Results Nomenclature
4. Map Microorganism Codes: Used to start or continue mapping between the imported local Microorganism dataset and the OLIS Microorganism Nomenclature.
5. Map Specimen Codes: Used to start or continue mapping between the imported local Specimen dataset and the OLIS Specimen (Source) Nomenclature.
6. Show Test Request, Result Link: This provides a view of the Test request and the Test results as in OLIS by filename.
7. Show mapped Nomenclature Codes: This provides a view of mapping of all imported codes (Test Request, Test result, Microorganisms, and specimens). It will be used by the OLIS team to compare mapping across multiple sites and multiple domains
8. Export Local Codes: Used to export mapped, unmapped or all test codes.
9. Manage Local Files: Used to view, delete or change names of imported files.
10. Exit This Database: Used to exit the OLIS Mapping Tool

Usage Tip:

If the Navigation Pane is accidentally opened (as shown on the left side in Figure 5-3), minimize the window by clicking the Shutter bar Open/Close Button [«]. The upper portion of the screen displays the MS Access ribbon. To minimize this ribbon, right click the Microsoft Office Button . The lower portion of the Main Menu screen will be fully displayed.
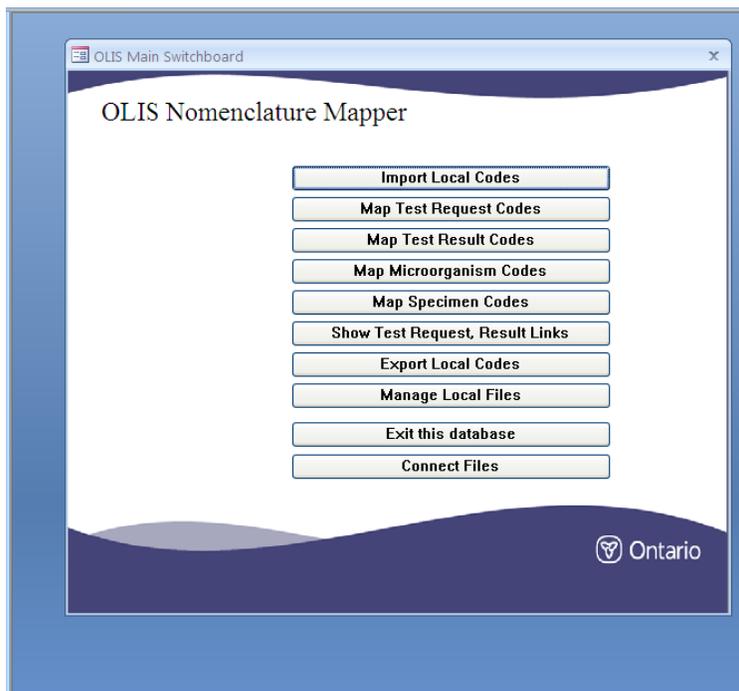
Figure 5-1: OLIS Mapping Tool Main Menu Screen with Navigation Pane

5.3   Importing Local Datasets

Before mapping local test result and test request codes to the OLIS Nomenclature it is important to import the entire list of local LIS test request and test result codes into the OLIS Mapping Tool. On subsequent mapping exercises, when additional test codes are added to the local LIS, it may be appropriate to append them to the existing list of mapped test codes, or to import only the new test codes that require mapping into the OLIS Mapping Tool. This will depend on the LIS file maintenance protocol since some LIS interfaces allow the entire mapping file to be replaced when new mapping test codes are generated. Other systems require only the changes that are used by the file maintenance protocol. The approach used in the file maintenance protocol will determine whether a comprehensive list of mapping to OLIS codes is prepared or if an incremental (changed) version of the test codes is prepared.

To import:

1. Open the Import Local Code screen by selecting "Import Local Codes" menu option on the Main Menu screen (Figure 5-4):
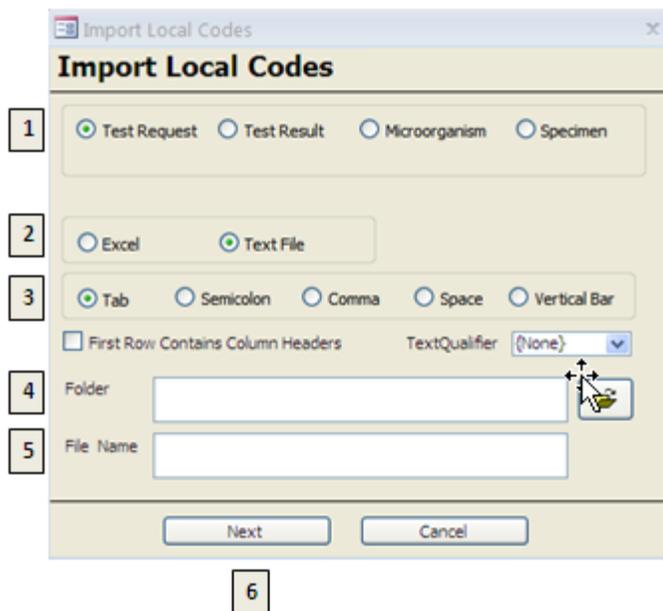
Figure 5-2: Import Local Codes Screen

2. Click on the appropriate option to specify:

   a) "Label 1" Whether a dataset file of "Test Request", "Test Result", "Microorganism" or "Specimen (Source) codes is being imported

      ➢ **Note:** if the wrong option is selected (e.g., "Test Result" is selected to import a test request file or vice-versa, the Tool will not raise an error. However, the headers displayed in the "Preview Local Test Request Codes" screen will not correctly correspond to the data elements beneath the heading

   b) 'Label 2" Whether the file format is text (ASCII) or Excel (97 -2003) spreadsheets.

   c) "Label 3" The separator (for ASCII text files only) used in the local laboratory test dataset file.

3. If the first row in the dataset file contains the data element headers (column headers), select the appropriate check box.
4. For ASCII text files, specify which text qualifier, if any, is used in the file. The default is "None". The OLIS Mapping Tool allows single quotation marks or double quotation marks as text qualifiers
5. Select the folder location of the local laboratory test dataset file (Figure 5-5) and click the Browse icon [📁]:
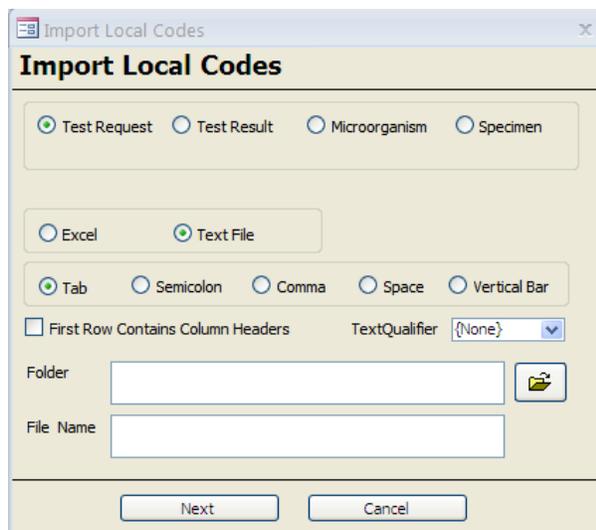
Figure 5-5: Location of Local Laboratory Test Dataset File

A windows file browser will open (Figure 5-5). Browse and select the appropriate dataset file. Click the "Open Folder" button
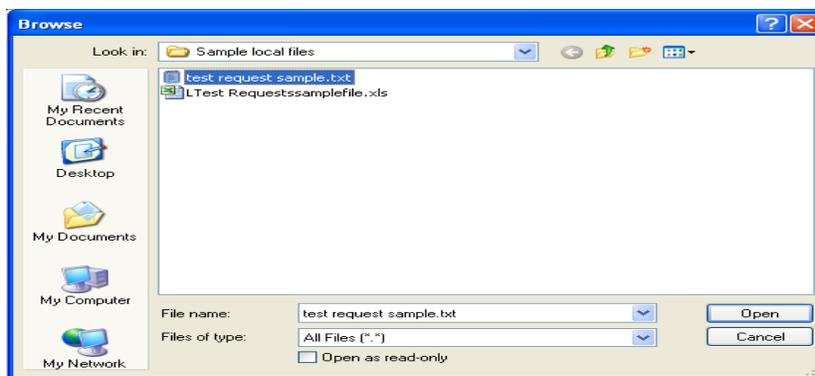
Figure 5-6: Windows File Browser

6. Click the "Next" button to preview the dataset that will be imported (Figure 5-5). If the user wishes to cancel importation of the file and return to the Main Menu, select the "Cancel" button

> **Usage Tip:**
> When the file name for the local test request codes is typed incorrectly, an error
> window will appear, alerting the user that 2 parameters are required.
>
>
>
> ➢ **Solution:** Use the column header (*Refer to Section 4*).

7. The "Preview Local Test Request Codes" screen appears when the local
   laboratory test requests dataset is selected (Figure 5-7 provides a preview of
   the local laboratory test requests dataset from a subset of a laboratory's
   blood testing codes). Complete the following steps:

   - Preview the contents of the file selected in the previous step

   - Type or paste the name of the file (that was selected in the previous
     step) into the "File Name" text box

     ➢ **Note:** the Mapping Tool will not automatically populate the name
     of the file that was selected in the "Import Local Codes" screen. If
     the user wants to rename the file selected in the "Import Local
     Codes" screen, type the revised file name
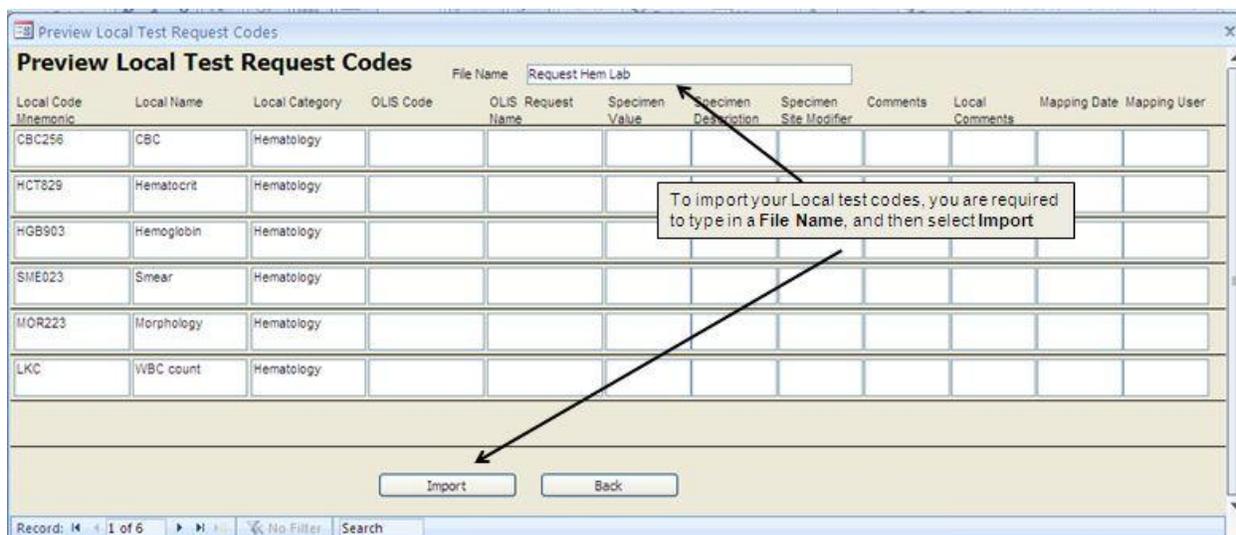
Figure 5-3: Local Test Request Codes Preview Screen

Confirm the import of the file by clicking on "Import". The "Import Complete"
notification appears, acknowledging the success of the task (Figure 5-8)

Figure 5-4: Confirmation Notification

Usage Tip:

When importing data from an Excel spreadsheet file, if the column headers for the Excel file are not specified exactly, "#name?" will appear.

➢ **Solution:** Type in correct column headers.

Note: To cancel importation, click on "Back" instead of "Import". The "Preview Local Test Request Codes" window will disappear and the user will return to the "Import Local Codes" screen.

The "Preview Local Test Result Codes" screen appears when the local laboratory test results dataset is selected (Figures 5-8 provides a preview of the local laboratory test results dataset from a subset of a laboratory's blood testing codes). The same process applies for the importing of the local laboratory test results dataset; the only difference is that now the preview screen will display the data element headers that are specific to result code.
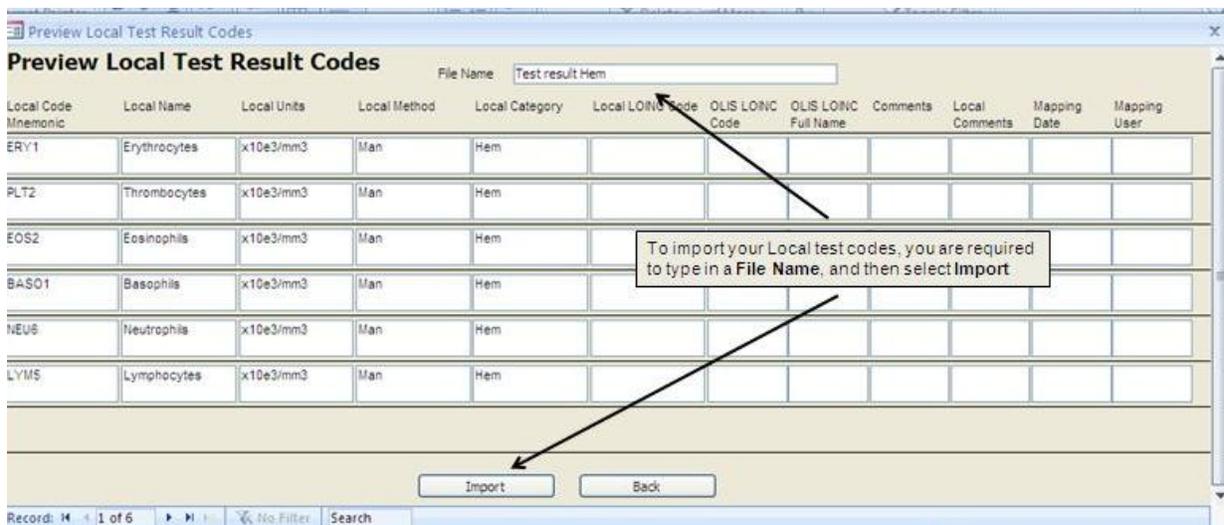
Figure 5-5: Local Test Result Codes Preview Screen

In the Preview screen, imported data can be viewed, but cannot be modified. To modify data, the user will need to modify the data in the Source file on the local computer and then re-import the file into the OLIS Mapping Tool. Alternatively, data values can be modified in the OLIS Mapping Tool within the "Map Test Request" or "Map Test Result" screens.

8. Before importing the files, specify the file name that will be used in the OLIS Mapping Tool. The OLIS Mapping Tool will not automatically accept the name of the file from a local computer. Make the file name as descriptive as possible
9. Select "IMPORT" to import the appropriate local laboratory test results dataset into the OLIS Mapping Tool or "BACK" to return to the Import "Local Codes" screen

5.4 Managing Local Files

The user can view a list of imported datasets by examining the "Manage Local Files" screen by selecting the "Manage Local Files" button from the "Main Menu" (Figure 5-9):
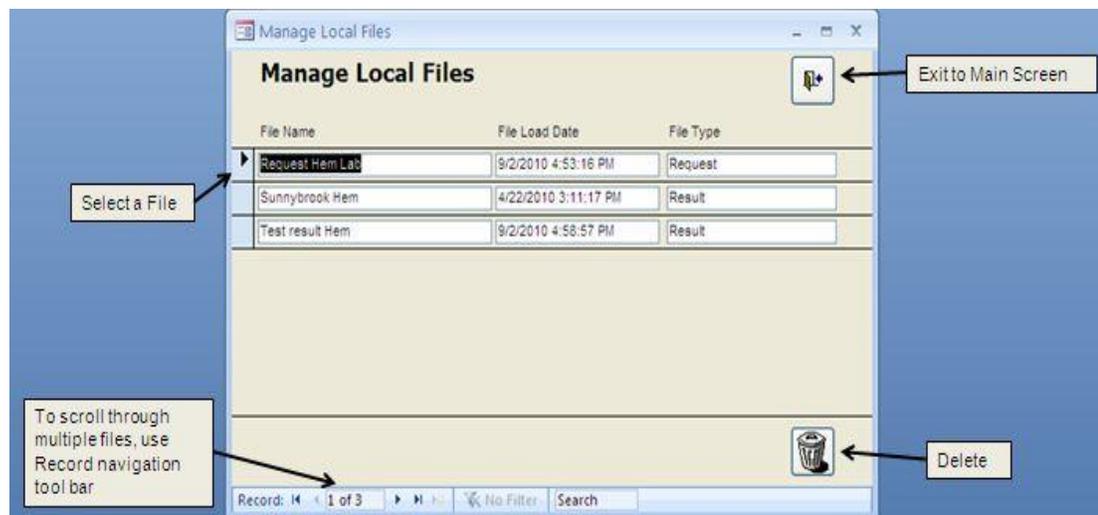
Figure 5-6: Manage Local Files Screen

The "Manage Local Files" screen displays the imported dataset "File Name", "File Load Date" and the "File Type". The File Name is the only one that can be changed. To change the File Name, click on the "File Name" field and type the revised file name. The File Name changes are automatically saved.

Use the record navigation toolbar located at the bottom left corner of the screen to navigate between screens in case the list of data files outnumbers the maximum number of data files that can be displayed per screen.

If the user wants to delete a dataset, select the dataset (File Name) by clicking on any field within the row and then click the "Trash" icon located at the bottom right corner of the screen. Once the "Trash" icon has been clicked a warning message will appear prompting the user to confirm the deletion (Figure 5-10). To confirm deletion, click the "Yes" button. Click the "No" button to cancel the deletion. Do not click on "Help" button since it has been disabled.
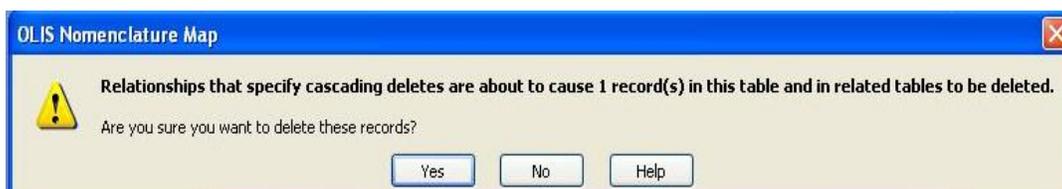
Figure 5-7: Warning Message

To exit the "Manage Local Files" screen, click on the Close (X).

6.0   Mapping Laboratory Codes

6.1 Background

Once the Test Request, Test result, Microorganism and Specimen (source) dataset has been imported in the OLIS Mapping Tool, mapping of local Specimen codes can take place with the OLIS Specimen (Source) Nomenclature. This section will provide steps for proceed with the mapping

1.   Import Specimen (Source) codes. This is a required input for the mapping the Local Test Request Codes. The mapping from the local specimen file is required during the Test Request mapping

2.   Import Test Request code: This is a requirement before mapping the Local Test Request Codes. The mapping from the local specimen file is a requirement.

3.   Import Test result codes

4.   Import Microorganism codes

5.   Map Specimen (Source) codes

6.   Map Test Request codes

7.   Map Test result codes

8.   Map Microorganism codes

7.0   Mapping Laboratory Specimen (Source) Codes

7.1 Background

Once the Specimen (source) dataset has been imported in the OLIS Mapping Tool, mapping of local Specimen codes can take place with the OLIS Specimen (Source) Nomenclature. This section will provide detailed information on how to map local Specimen codes using the OLIS Mapping Tool.

7.2 Map Specimen Codes to OLIS Specimen Codes Screen

To start mapping the local laboratory Specimen (source) dataset to the OLIS Microorganism Nomenclature select "Map Specimen Codes" from the Main Menu. The following screen will appear (Figure 7-1):
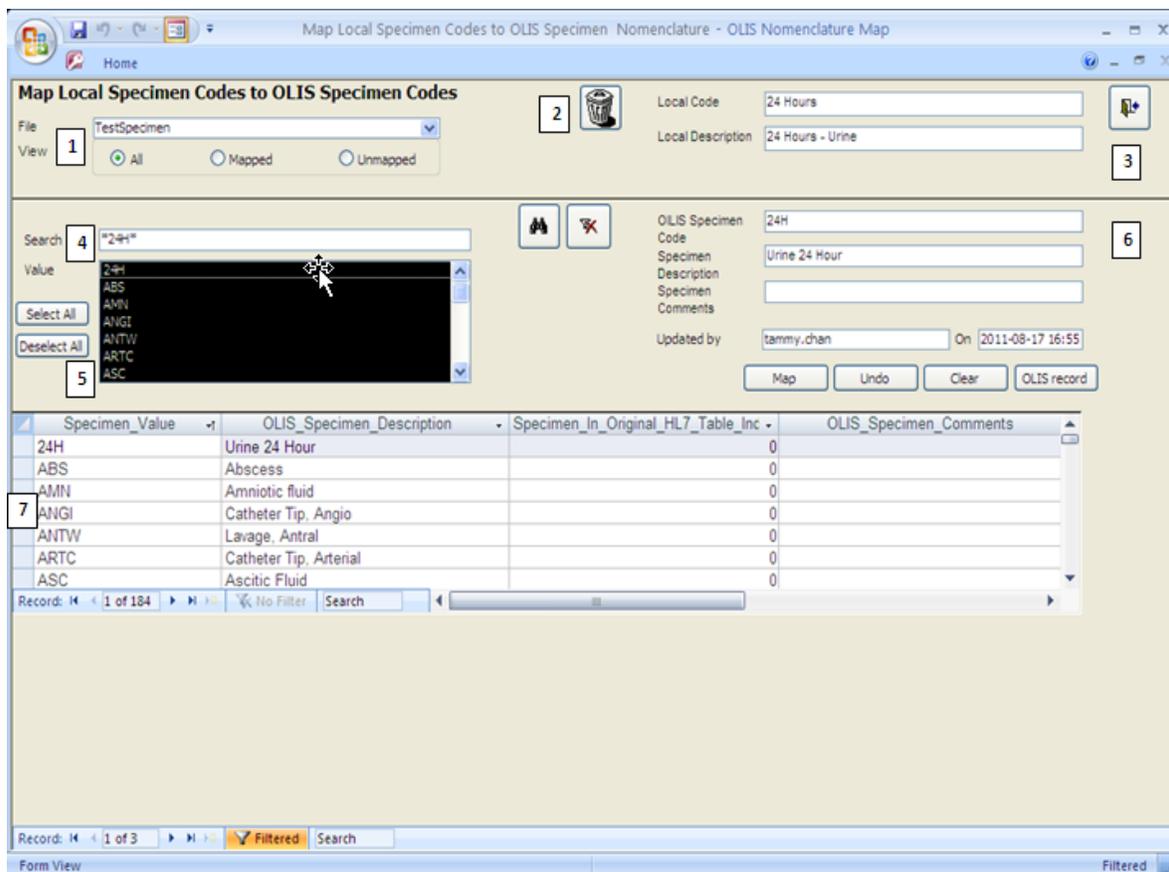
Figure 7-1: Map Local Specimen Codes to OLIS Specimen (Source) Codes Screen

This screen consists of 7 sections:

1: Data File   2: Local Code Display
3   Exit   4: Search Criteria
5: Search List   6: OLIS Specimen Details
7: Navigation

7.3 Map Specimen Codes to OLIS Specimen (Source) Codes Screen

The Data "File" section displays the name of the dataset file currently selected (Figure 7-2). Only the test results dataset files are displayed. To select a different Specimen dataset file, click on the drop down list:
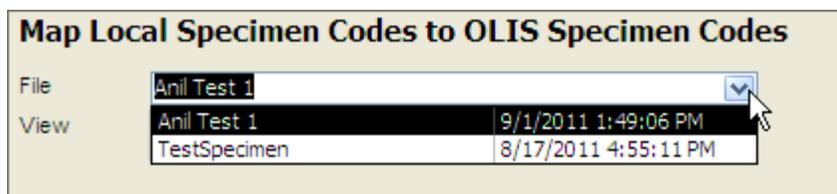
Figure 7-1: List of Imported Laboratory Specimen Datasets

The buttons in the "View" section will filter the data contained in the dataset (Figure 7-3):

- All: Enables the selection of all records within the dataset

- Mapped: Enables selection of records that have already been mapped to the OLIS Nomenclature

- Unmapped: Enables selection of records that have not yet been mapped to the OLIS Nomenclature
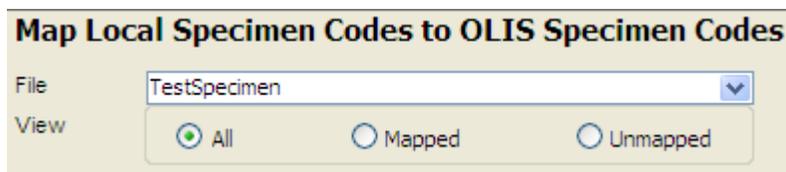
Figure 7-3: Data Field Section

7.4 Local Code Section

The Local Code section displays the details of the local laboratory Specimen codes from the imported local laboratory Specimen dataset (Figure 7-4).
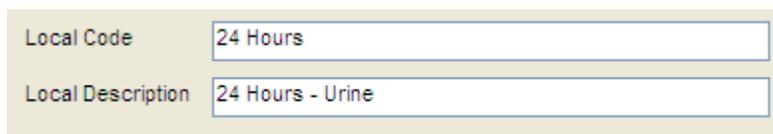
Figure 7-4: Local Specimen Code Display Section

This section contains the following fields:

1. Local Code: A local mnemonic

2. Local Name: The Specimen that is locally described

3. Trash: Deletes the currently displayed local Specimen dataset (Figure 7-5). Clicking this button will not delete the entire dataset. It will delete only the displayed record. When the "Trash" button is clicked, the user is prompted

to confirm the deletion. Select the "Yes" button to confirm the deletion or the "No" button to cancel the deletion
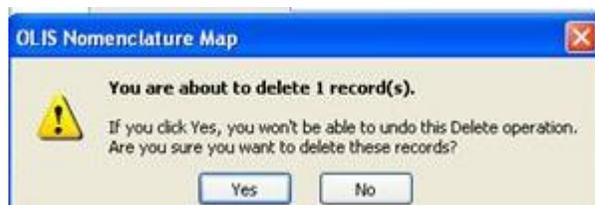
Figure 7-5: Confirm Record Deletion

7.5 Search Criteria Section

The information displayed in the search section is used to define the search criteria needed to find the corresponding test result in the OLIS Specimen (Source) Nomenclature (Figure 7-6). This section is analogous to the Search Criteria section found on the Specimen (Source) Mapping section, except that the data values within the List Boxes are those from OLIS Specimen (Source) Nomenclature. As a default setting, all Values selected.
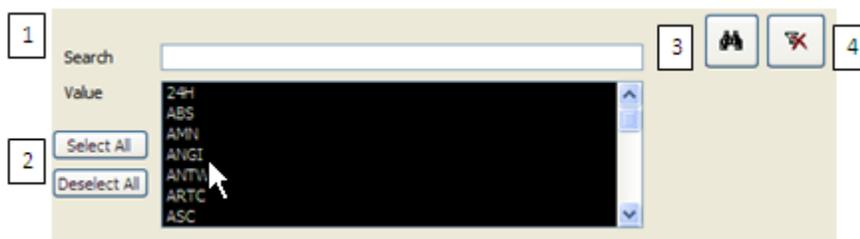
Figure 7-6: Search Criteria Section

Usage Tip:

When mapping local test request or test result codes or Specimen (source) to the OLIS Nomenclature, the Search function treats a blank category as a valid entry.
  ➢ **Solution:** When searching, either select all categories or include blank entries.

The Search Criteria section consists of:

1. Searching: The local laboratory test name automatically populates this field and has a proceeding and trailing asterisk

2. Value: To select one or more OLIS Specimen type to search against

    • To select an additional Values, hold down the Control key and click the additional desired values

- To select a range of Values, click the first desired category. Hold down the Shift key and click the last desired category

3. Binocular Icon: To start the search; and

4. Clear Icon: To clear the search results.

"Select All" and "Deselect All" are used to select or deselect all values in the List Box.

7.5.1 "Search Expression" Field Section

The parameters entered into the Search Expression field searches against the fields listed below in OLIS Specimen (Source) Nomenclature (Figure 7-7).
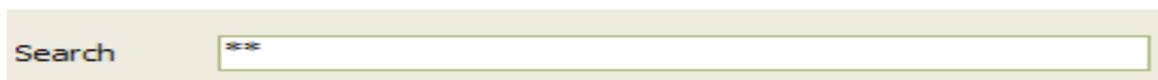
Figure 7-7: Search Expression Field Section

This search takes place in the following order:

- Specimen Value
- OLIS Specimen Description

The OLIS Mapping Tool searches multiple parameters by placing a wildcard (*) before the first and the after the last search parameter. By placing asterisks between parameters (terms) regardless of the number of parameters, the search will return a large set of records. The search is not case sensitive. Please make sure that the search criteria are specified in above order. It is not necessary to specify the search criteria for all fields. However, those that are specified must be listed in the order mentioned above (see examples below).

Note: Although the local laboratory Specimen name is automatically inserted between the asterisks, the user can edit this name if the name is not appropriate or descriptive. When a user enters multiple search criteria, always precede the first search parameter with a wild card.

7.5.1.1 Search Example 1

Entered parameter: "*ur* (Figure 7-8).

Search List Result: The Search List will return a set of records where "ur* are specified

Figure 7-8: Example 1 Search List (14 records returned)

7.5.1.2   Search Example 2

<u>Entered parameter:</u> "*urines* (Figure 7-9).

<u>Search List Results</u>: The search List will return a set of records where nothing is found

Figure 7-9: Example 1 Search List (No records returned)

7.5.2   Search Icons

The "Search" (Binoculars) button is used to execute a search against OLIS Specimen (Source) after the search criteria have been entered into "Searching" field (Figure 7-10).

Figure 7-10: Search (Binocular) Button

7.5.3   Remove Filter Icon

The "Clear Search Criteria filter" button removes any filtering criteria entered in the "Searching" field or selected in list boxes (Figure 7-13). When the icon is clicked, the Search List section will display all records from the OLIS Specimen (source) Nomenclature.

Figure 7-11: Remove Filter Button

7.6   Search List Section

The Search List section displays the returned set of query results (Figure 7-12). By default, this section displays all OLIS Test Results Nomenclature records. When search parameters are defined in the "Search" field and the "Search" button is clicked, the Search List will display only search results that

correspond to the query parameters. To sort, the default setting is on the LOINC Code field.

Figure 7-12: Search List Section (correct record returned)

Columns within the Search List can be hidden, reordered, frozen and sorted upon. To view column options, right click on the desired column and select the appropriate option (Figure 7-13). The order of sorted results will not be retained once the screen is closed.
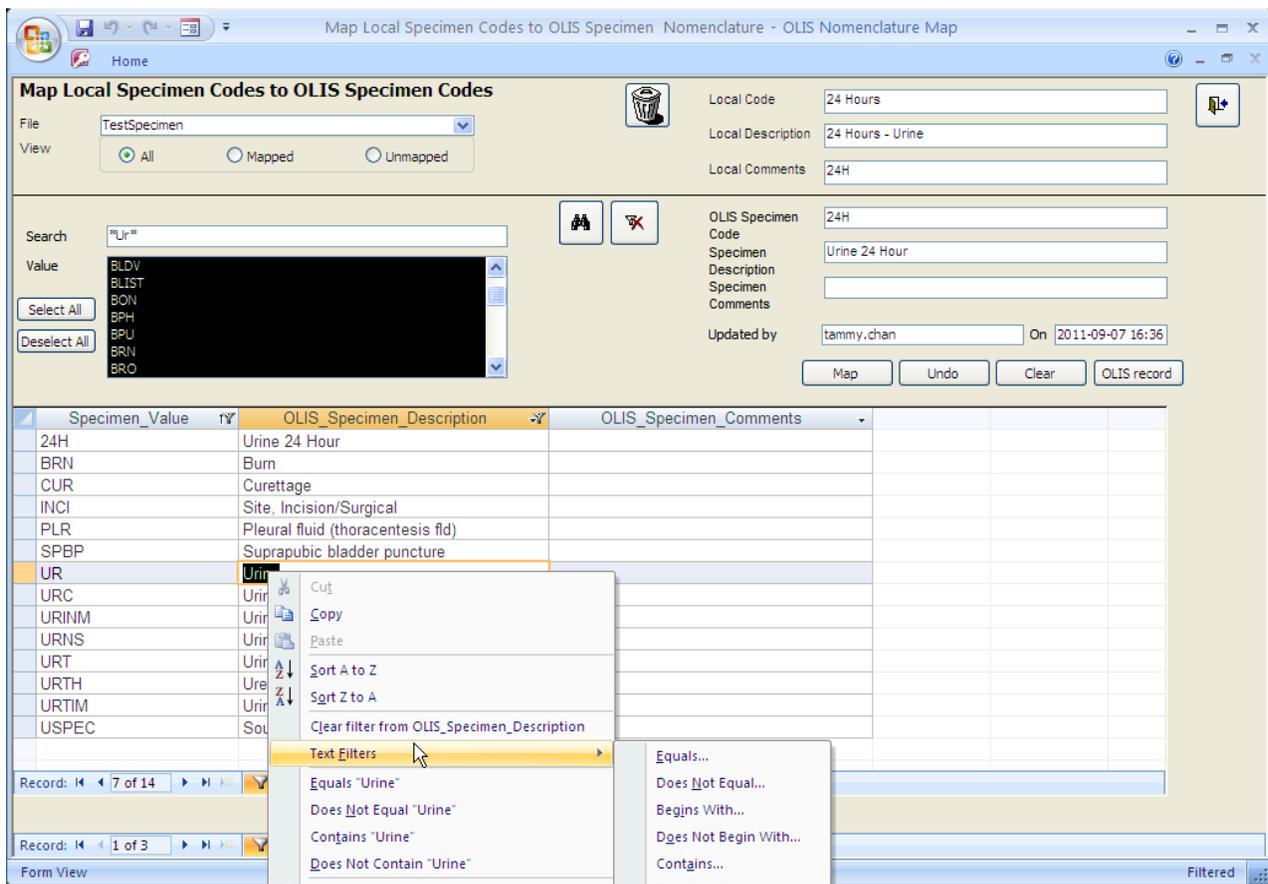
Figure 7-2: Search List Column Options

7.7 Mapped Code Section

The Mapped Code section includes the local laboratory Microorganism Name and corresponding OLIS Microorganism Nomenclature information (Figure 7-14).
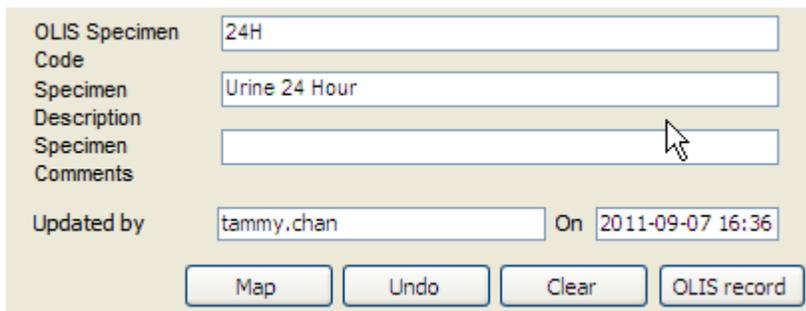
Figure 7-14: Mapped Code Section

The Mapped Code section consists of the following:

1. OLIS Specimen Code: Displays the OLIS Code that has been mapped to the local laboratory Specimen (Source) code displayed in Local Code field. This field cannot be edited. The field appears empty if the user has not performed mapping before

2. Comments: Used to capture the reasoning for the mapping. This is a free-text field and is editable

3. Updated by: The name of person performing the mapping (automatically populated based on the Windows login userID of the person logged onto the computer) is captured along with the time and date the mapping was performed. If the mapping process is divided amongst multiple staff members, this feature provides a means of assessing "who mapped what and when"

4. Buttons:

   - Map: Used to map the OLIS Specimen (source) to the local laboratory Specimen (source). Mapping can also be performed by double-clicking any of the fields within a record on the Search List section

   - Undo: Used to return to the value of the mapped OLIS record to the last previously mapped value

   - Clear: Used to clear all details from the Mapped Code section

   - OLIS Record: Used to display all the details of the OLIS Specimen (source) record mapped or OLIS Specimen (source) record selected in the Search List screen (Figure 7-15)
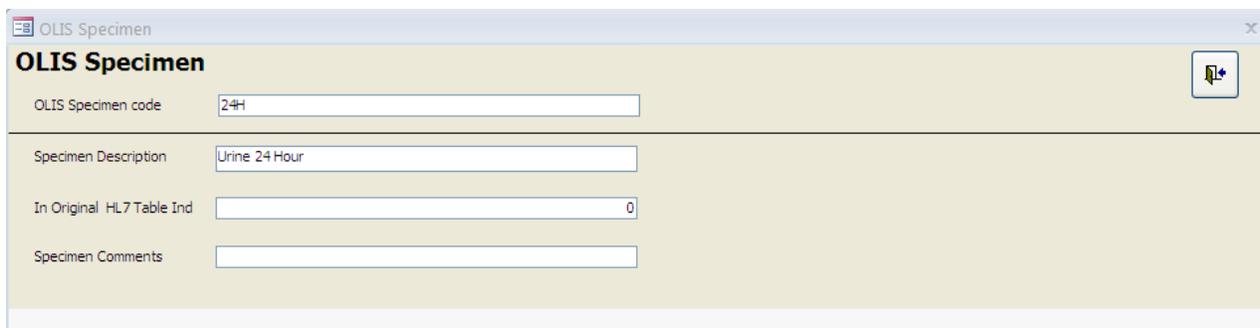
Figure 7-15: Details of the OLIS Specimen (Source) Record Screen

7.7.1   Mapping Specimen (Source)

To map a local laboratory Specimen (Source) to OLIS Specimen (Source) Nomenclature record:

1. Use the "Searching" field to narrow down the number of records displayed in the Search List (Figure 7-16)

2. Select the OLIS result record by clicking it once

3. Click the "Map" button

Note: Double clicking the record in the Search List will automatically map the OLIS Nomenclature record to the local laboratory test result record

Usage Tip:
Duplicate entries in the local test mnemonic are not recognized. Only the first entry will be mapped. ➢ **Solution:** Be certain to remove or rename duplicate local test mnemonic entries before starting the mapping task.
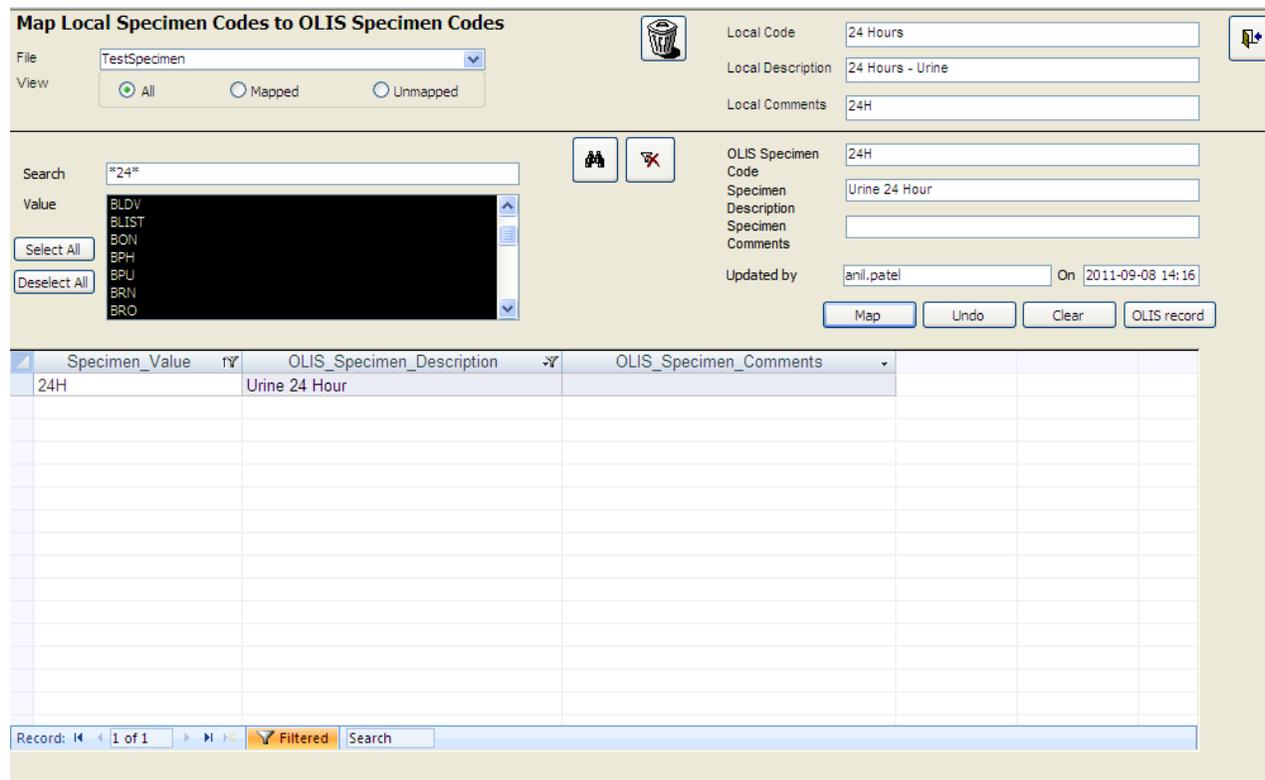
Figure 7-16: Map Local Microorganism Codes to OLIS Microorganism Codes Screen

The mapped LOINC code value from the Search List section appears in the "OLIS Code" field. Click the "Undo Mapping" button to undo the mapping action and the previous value (if available) will appear in the "OLIS Code" and "OLIS Specimen Description" field. Clicking the "Clear" button will clear values from both the "OLIS Code" and the "OLIS Specimen Description".

7.8 Navigation Section

The Record Navigation section contains two rows (Figure 7-17). The first row is used to navigate between the OLIS test result records within the Search List. It is not necessary to use the first row since the same goal can be achieved by using the vertical scroll bar.

The second row is used to navigate between imported dataset records.

Figure 7-17: Record Navigation Section

The details outlined below pertain to the second Navigation row:

- The field within the Record Navigation section displays the user's current record location within the imported dataset

- The Record Navigation section also displays the total number of records within a dataset as "[current record position] of [total number of records]"

- The "|<" and "|>" buttons allow the user to navigate to the first and the last record (respectively) in the dataset

- The "<" and ">" buttons allow the user to navigate to the previous and the next record (respectively) in the dataset

7.9 Exit Section

The Exit section is located at the top right portion of the Mapping screen and contains the Exit button (Figure 7-18) used to exit the Mapping screen and return to the Main Menu screen

Figure 7-18: Exit Button

8.0   Mapping Laboratory Test Request Codes

8.1 Background

Once the local laboratory test requests dataset has been imported into the OLIS Mapping Tool, mapping of local test request codes can take place with the OLIS Test Requests Nomenclature. This section provides detailed information on how to map test request codes using the OLIS Mapping Tool.

8.2 Map Local Test Request (Order Codes) to OLIS Test Request Codes Screen

To start mapping of the local laboratory test requests dataset to the OLIS Test Requests Nomenclature, select "Map Request Codes" from the Main Menu. The following screen will appear (Figure 8-1):
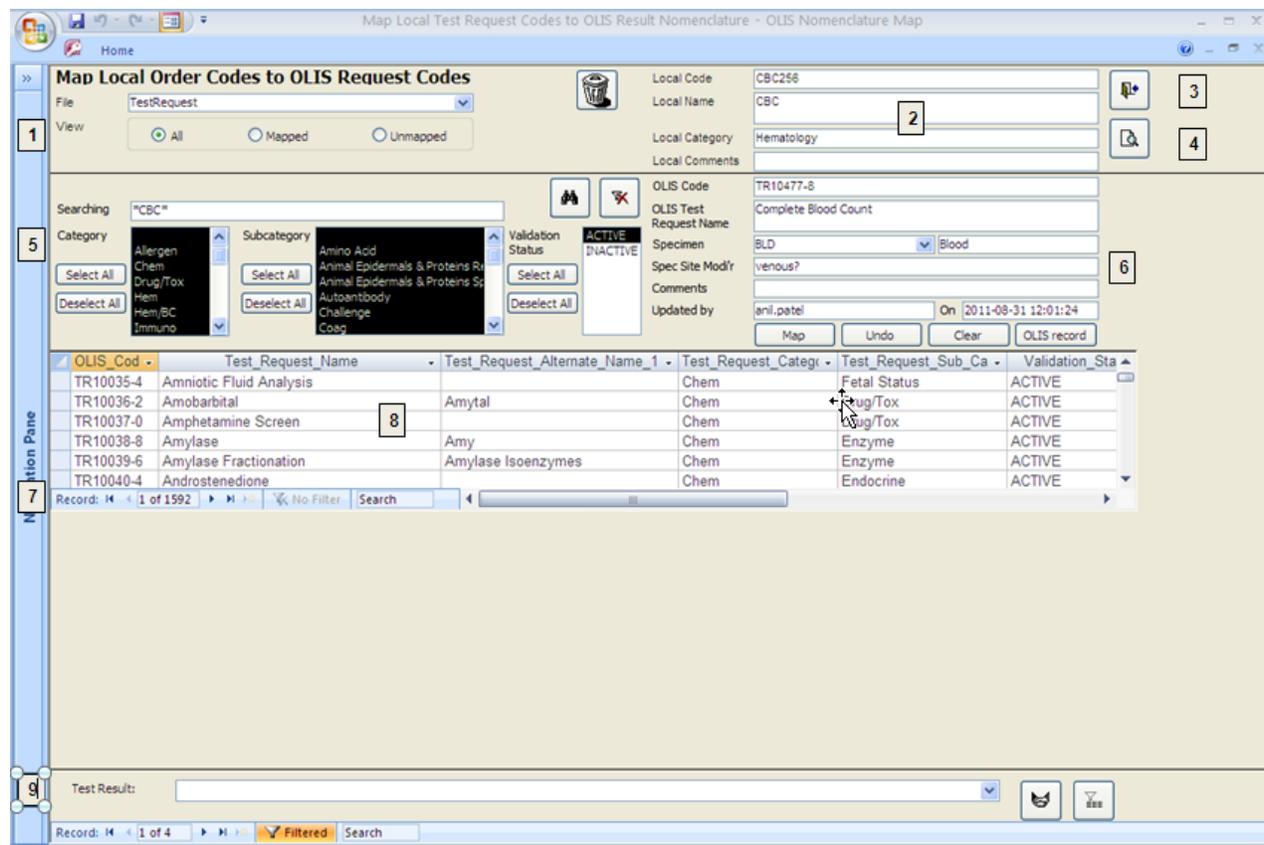
Figure 8-1: Map Local Order Codes to OLIS Request Codes Screen

The "Map Test Request Codes" screen consists of 7 sections:

1: Data File	2: Local Code Display
3: Exit	4: View Test result list
5: Search Criteria	6: Mapped code display
7: Test Request Navigation	8: Search List
9: View and Link Test Result.	

Usage Tip:

"Comments" associated with an OLIS test request is not visible on the "Map Local Order Codes to OLIS Request Codes" screen.
  ➢ **Solution:** Click the OLIS record button to view details.

8.2.1   Data File Section

The "Data File" section displays the name of the dataset file currently selected (Figure 8-2). Only the local laboratory test requests dataset files are displayed.

Figure 8-2: Data File Section

To select a different dataset file, click on the drop down list (Figure 8-3):
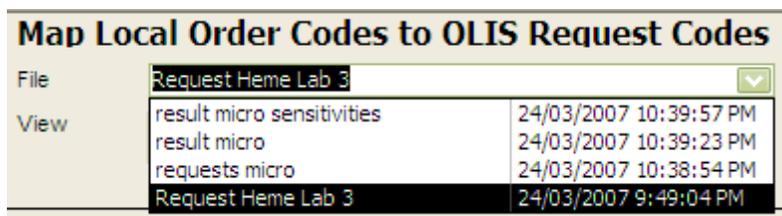
Figure 8-3: List of Imported Datasets

The buttons in the "View" section will filter the data contained in the dataset according to the following:

- All: Enables the selection of all records within the dataset

- Mapped: Enables selection of records that have already been mapped to the OLIS Nomenclature

- Unmapped: Enables selection of records that have not yet been mapped to the OLIS Nomenclature

8.3 Local Code Display Section

The "Local Code Display" screen displays details of the local test requests from the imported local laboratory test requests dataset (Figure 8-4). Only one test request record will be displayed at a time.

Figure 8-4: Local Code Display Section

To select another test request record from the local dataset, use the navigation bar at the very bottom of the screen. <u>Note:</u> There are two navigation bars. The upper one is used to navigate through the Search Results.

This section contains the following fields:

1: Local Code: The local mnemonic
2: Local Name: The name associated with the mnemonic

3: Local Category: Local category, if assigned

4: Local Comments: Description of the code

5: Trash: Deletes the currently displayed local test request data. Clicking this button will not delete the entire dataset. It will delete only the displayed record. When the "Trash" button is clicked, the user is prompted to confirm the deletion (Figure 8-5). Select the "Yes" button to confirm the deletion or the "No" button to cancel the deletion

Figure 8-5: Confirm Record Deletion

8.4 Search Criteria Section

The information displayed in "Search Criteria" screen is used to define the search criteria needed to find the corresponding test request in the OLIS Test Requests Nomenclature (Figure 8-6). As a default setting, all categories and sub-categories are selected as well as an active validation status of "Active".
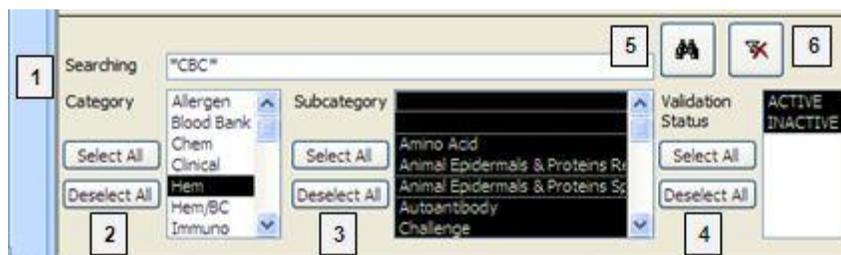
Figure 8-6: Search Criteria Section

Usage Tip:
When mapping local test request or test result codes to the OLIS Nomenclature, the Search function treats a blank category or sub-category as a valid entry.
  ➢ **Solution:** When searching, either select all categories or include blank entries.

The Search Criteria section consists of:

1. Searching: The local name automatically populates this field and has a proceeding and trailing asterisk

2. Category: To select one or more OLIS test request categories to search against:

    - To select an additional category, hold down the Control key and click the additional desired category

    - To select a range of categories, click the first desired category. Hold down the Shift key and click the last desired category

3. Sub-category: To select one or more of the OLIS test request sub-categories to search against:

    - To select an additional sub-category, hold down the Control key and click the additional desired sub-category

    - To select a range of sub-categories, click the first desired category. Hold down the Shift key and click the last desired sub-category

4. Validation Status: To select one or more of the OLIS Test Request Validation Status to search against use the:

    - Binocular Icon: To start the search

    - Clear Icon: To clear the search results

    "Select All" and "Deselect All" are used to select or deselect all values in the

    List Box.

8.4.1   "Search Expression" Field Section

The parameters entered into the Search Expression field (Figure 8-7) searches against the following fields in OLIS Test Requests Nomenclature in the following order:

- Test Request Code

- Test Request Name

- Test Request Alternate Names 1, 2 and 3

Figure 8-7: Search Expression Field Section

For the user's convenience, the OLIS Mapping Tool searches multiple parameters. Placing a wildcard (*) before the first and the last search parameter, regardless of the number of parameters, will return a larger set of records. Although the local name automatically is inserted between the asterisks, the user can edit this name if it is not appropriate or descriptive. The search is not case sensitive.

8.4.1.1   Search Example 1:

Parameter entered in "Searching field": "CBC" (Figure 8-8).

Search Expression Field Section: Since no wildcards (*) are used, the OLIS Mapping Tool searches for any values within OLIS Test Requests Nomenclature where the field value is precisely "CBC".

Figure 8-8: Example 1 Search List Result

8.4.1.2   Search Example 2:

Parameter entered in "Searching field": "*Count*" (Figure 8-9).

Search list result: Since wildcards (*) are used, the OLIS Mapping Tool will search for all records in which Test Request Names or Alternate Names contain the word "Count". The order in which the word "Count" appears in the test request name does not matter. It can appear at the beginning, in the middle or at the end of the test request name.
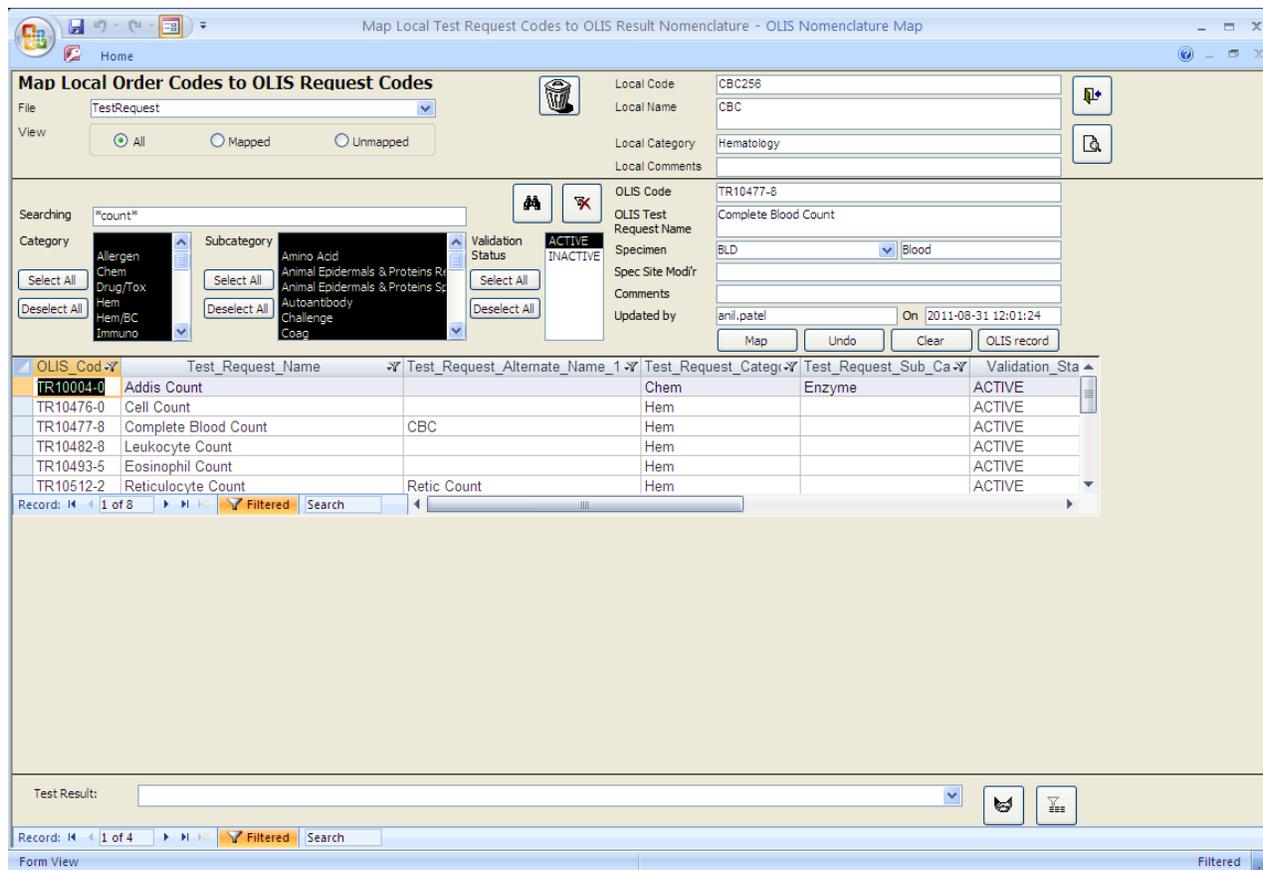
Figure 8-9: Example 2 Search List

8.4.2   List Box Section

The List Box section will allow the user to select and filter more specific information in each category and sub-category (Figure 8-10).
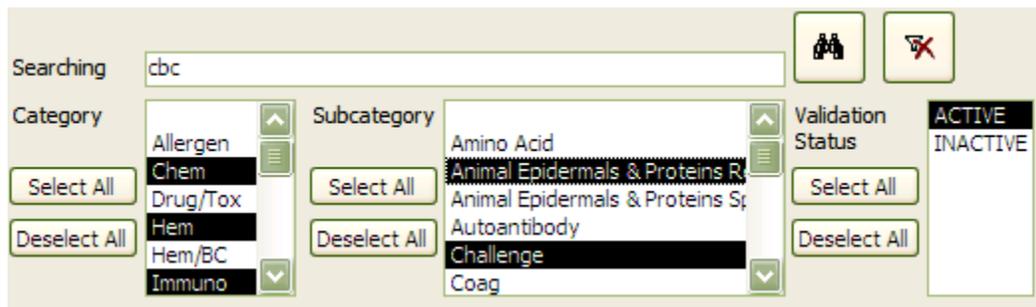
Figure 8-10: List Box Section

- To select individual values, click on the preferred value

- To select multiple consecutive values, select the starting value, hold down the SHIFT key and then select the last value in the row

- To select multiple non-consecutive values, click on the first value, hold down the CTRL key and select the desired values (in a consecutive or non-consecutive order)

- To include all values in the list box click the "Select All" button. To deselect all values click "Deselect All" button (Figure 8-11)
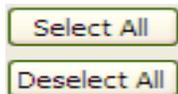
Figure 8-11: List Box Buttons

8.4.3 Search Icons

The "Search" (Binoculars) button is used to execute a search against the OLIS Test Requests Nomenclature after the search criteria have been entered (Figure 8-12).

Figure 8-12: Search (binoculars) Button

The "Clear Search Criteria filter" button removes any filtering criteria entered in the "Searching" field or selected in List Boxes (Figure 8-13). When the icon is clicked, the Search List section will display all records from the OLIS Test Requests Nomenclature.

Figure 8-13: Clear Search Button

8.5 Search List Screen

The Search List screen displays the returned set of query requests (Figure 8-14). By default, the screen displays all OLIS Test Requests Nomenclature records. When search parameters are defined in the "Searching" field and the "Search" icon is clicked, the Search List will display only search requests that correspond to the query parameters.

OLIS_Code	Test_Request_Name	Test_Request_Alternate_Name_1	Test_Request_Categor	Test_Request_Sub_Categ	Validation
TR10012-3	Alcohol Fractionation		Chem	Drug/Tox	ACTIVE
TR10013-1	Alcohol Screen		Chem	Drug/Tox	ACTIVE
TR10177-4	Ethanol	Ethyl Alcohol	Chem	Drug/Tox	ACTIVE
TR10262-4	Isopropanol	Isopropyl Alcohol	Chem	Drug/Tox	ACTIVE
TR10296-2	Methanol	Methyl Alcohol	Chem	Drug/Tox	ACTIVE

Figure 8-14: Search List Screen: Searching *alcohol*

Columns within the Search List can be hidden, re-ordered, frozen and sorted (Figure 8-15). To view column options, right click on the desired column and select the appropriate sorting option. The sorting options will not be saved when exiting out of this screen. The user cannot modify any of the OLIS Test Requests Nomenclature record values.

Figure 8-15: Search List Column Options

The user can further narrow down (filter) the Search List by right clicking on the record cell that the user wants to filter against. In Figure 8-16, the "Chem" value of a record is selected. By right clicking on the cell, the user can select "Text Filter" and apply the option to "Contain" or "Does Not Contain".

Figure 8-16: Search List Record Options

The resulting Search List will contain only those records where "HEM" is specified as the test request category (Figure 8-17). Note that the original "*Count*" search criteria was not removed. Instead, the OLIS Mapping Tool has added one search criteria "HEM" along with the existing search criteria "*Count*". The user can remove or add to the search criteria by right clicking on the same column "Test Request Category" and selecting "Remove Filter/Sort".

Figure 8-17: Search List Filtered By "HEM" Value

Usage Tip:

When filtering the data in a Search List, the user will sometimes get a warning that the filter operation was cancelled because the filter is too long (see image below). This occurs when the "Text Filter" option equals "term filtered on" is used.

➢ **Solution:** To narrow down the Search List, right click on a record cell to display a task menu. Use the "Text filter" options "Contain" or "Does Not Contain"

If the option "Text Filter" equals "term filtered on" is used the "Text Filter", a warning message displays. If this warning message is displayed, use the "Text Filter" option "Contain" or "Does Not Contain" rather than the "term filtered on" option.

8.6 Mapped Code Section

The Mapped Code section consists of local laboratory test request and corresponding OLIS Test Requests Nomenclature information (Figure 8-18).

Figure 8-18: Mapped Code Section

This includes:

1. OLIS Code: Displays the OLIS LOINC code that has been mapped to the local laboratory test displayed in the "Local Code" section. This field cannot be modified and appears empty if the user has not performed mapping before

2. OLIS Test Request Name: Displays the OLIS Test Request Name that has been mapped to the local laboratory test request displayed in the "Local Code" section. This field cannot be modified and appears empty if the user has not performed mapping before

3. Specimen: Used to specify the specimen (source) code that should be mapped together with the OLIS test request record to the local laboratory test request record. This field cannot be modified and appears empty if the user has not performed mapping before

4. Specimen Description: Displays the specimen description which corresponds to the selected specimen code value. This field cannot be modified and appears empty if the user has not performed mapping before

5. Specimen Site Modifier: Used to specify the specimen site modifier such as a procedure used to obtain a specimen (e.g., aspirate, biopsy etc). This is a free text field and is editable

6. Comments: Used to capture the reason for mapping. This is a free-text field and is editable.

7. Updated by: The name of person performing the mapping (automatically populated based on the Windows login userID of the person logged onto the computer) is captured along with the time and date the mapping was performed. If the mapping process is divided amongst multiple staff members, this feature provides a means of tracking "who mapped what and when"

8. Buttons

   - Map: Used to map the OLIS test request to the local laboratory test request. Mapping can be performed by double-clicking any of the fields within a record on the Search List section

   - Undo: Used to return to the value of the mapped OLIS record to the most <u>recent</u> previously mapped value

   - Clear: Used to clear all details from the Mapped Code section

   - OLIS Record: Used to display all the details of the OLIS test request record mapped or OLIS test request record selected in the Search List section (Figure 8-20)

Figure 8-20: Details of OLIS Test Request Record Screen

8.6.1   Mapping Test Requests

To map a local laboratory test request to the OLIS Test Requests Nomenclature:

1. Use the "Searching" field to narrow down the number of records displayed in the Search List (Figure 8-21)

2. Select the OLIS test request by clicking it once

3. Click on the "Map" button

Note: Double clicking the record in the Search List will automatically map the record and is equivalent to combining steps 2 and 3 above.

Usage Tip:
Duplicate entries in the local test mnemonic are not recognized. Only the first entry will be mapped.
  ➢ **Solution:** Be certain to remove or rename duplicate local test mnemonic entries before starting the mapping task.
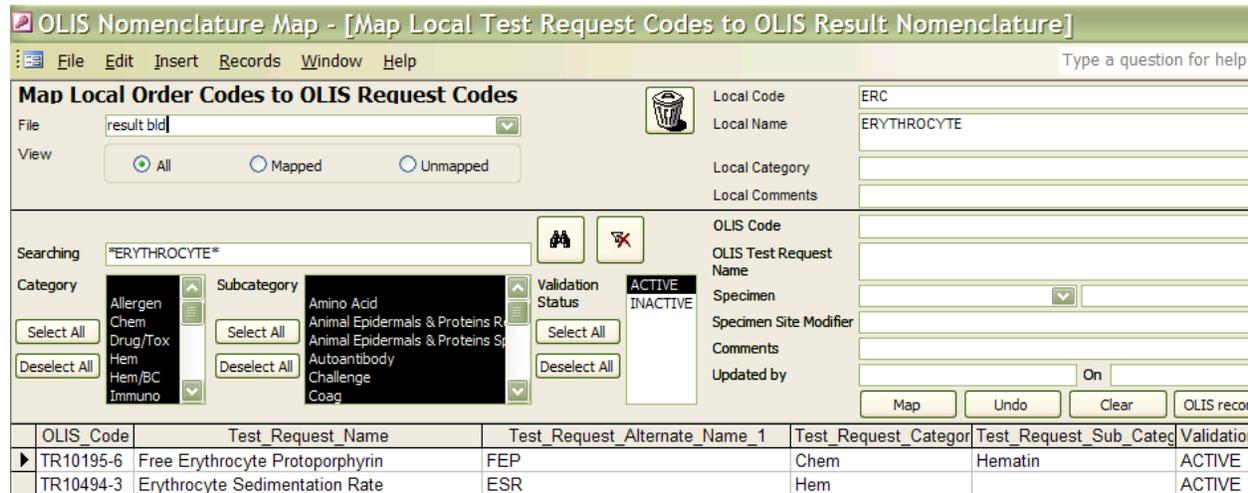
Figure 8-21: Mapping Local Order Codes to OLIS Test Request Record Screen

The mapped OLIS Test Request from the Search List section will appear in the "OLIS Code" field. Click the "Undo Mapping" button to undo the mapping action and the previous value (if available) will appear in the "OLIS Code" field.

After mapping the OLIS code to the local laboratory test code, use the "Specimen" field drop down list to specify the type of specimen that should be used together with the OLIS code to ensure an unambiguous laboratory test request (Figure 8-22). Specifying the specimen type is optional.
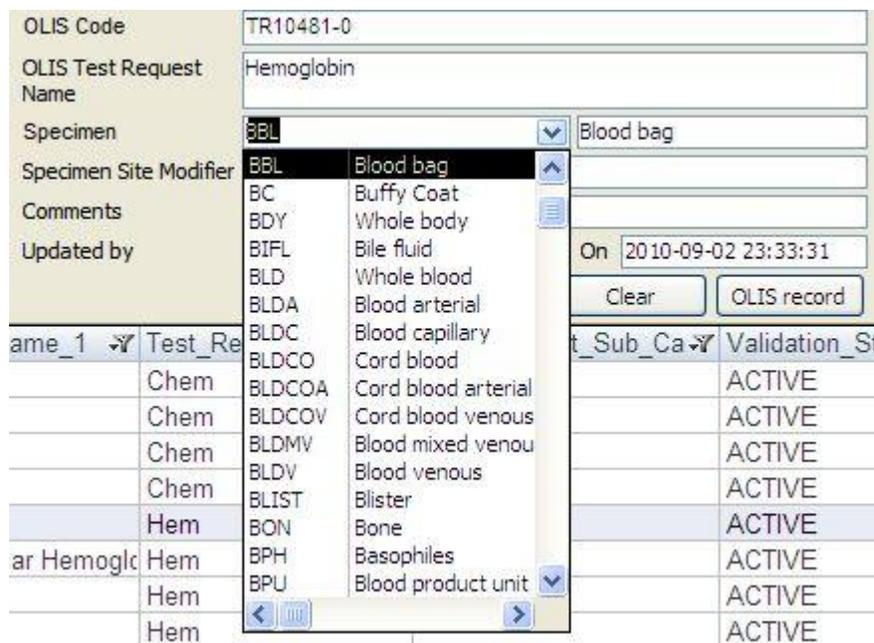
Figure 8-22: Specimen Field Drop Down List

Usage Tip:

If a local test request code requires mapping to the same OLIS test request code but with more than one specimen source code, only the latter mapping will be retained.
  ➢ **Solution:** Create a new local source code.

The specimen description field is automatically populated based on the selected Specimen code (Figure 8-23). The "Specimen Site Modifier" field is an editable free-text field used to specify the specimen site modifier such as a procedure used to obtain a specimen (e.g., aspirate, biopsy etc).

Figure 8-23: Specimen Description and Modifier

8.7 Record Navigation Section

The Record Navigation section contains two rows (Figure 8-24). The first row is used to navigate between the OLIS test request records within the Search List. It is not necessary to use the first row since the same goal can be achieved by using the vertical scroll bar.

The second row is used to navigate between the imported dataset records. Use this section to navigate between the imported dataset.
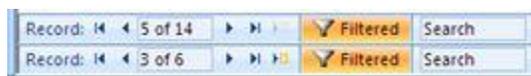
Figure 8-24: Record Navigation Screen

The details outlined below pertain to the second Navigation row:

  • The field within the Record Navigation section displays the user's current record location within the imported dataset

  • The Record Navigation section also displays the total number of records within a dataset as "[current record position] of [total number of records]"

- The "|<" and "|>" buttons allow the user to navigate to the first and the last record (respectively) in the dataset
- The "<" and ">" buttons allow the user to navigate to the previous and the next record (respectively) in the dataset

8.8 Exit Section

The Exit section located at the top right portion of the Mapping screen contains the Exit button (Figure 8-25). This button is used to exit the Mapping screen and return to the Main Menu screen.

Figure 8-25 Exit Button

8.9 View Details

This button is located at the top right portion of the mapping screen under the Exit button (Figure 8-26) shows the linked local Result code to Request. This shows the View details button. Clicking on the button shows the Test result Code linked To window

Figure 8-26: View Details

The Linked Local Result Code to Request Codes shows the code linked to the Test request Code (e.g. CBC226) in the example (Figure 8-27), the figure shows the Eosinophils, but the navigation bar can be used to view the other Test result records for the Local Test Request.

If the Test result record linked to the Test request is Incorrect, the delete record button can be used to remove the link.

Figure 8-27: Test result Code linked To

1. Delete Record Link   **2**. Navigation bar

8.10 Linking the Test Result Code to the Test Request code

To link the test result code to the Test Request code, the Test result must be first be mapped and in the mapped status. Test result codes that are imported and not mapped will not be available for linkage to the Test Request and not seen in the Test Result selection list (Figure 8.28). The Test Request and Test result link can be done on either the Map Local Order Codes to OLIS request Code Window or Map Local Test Result Codes to OLIS Test Result Code.
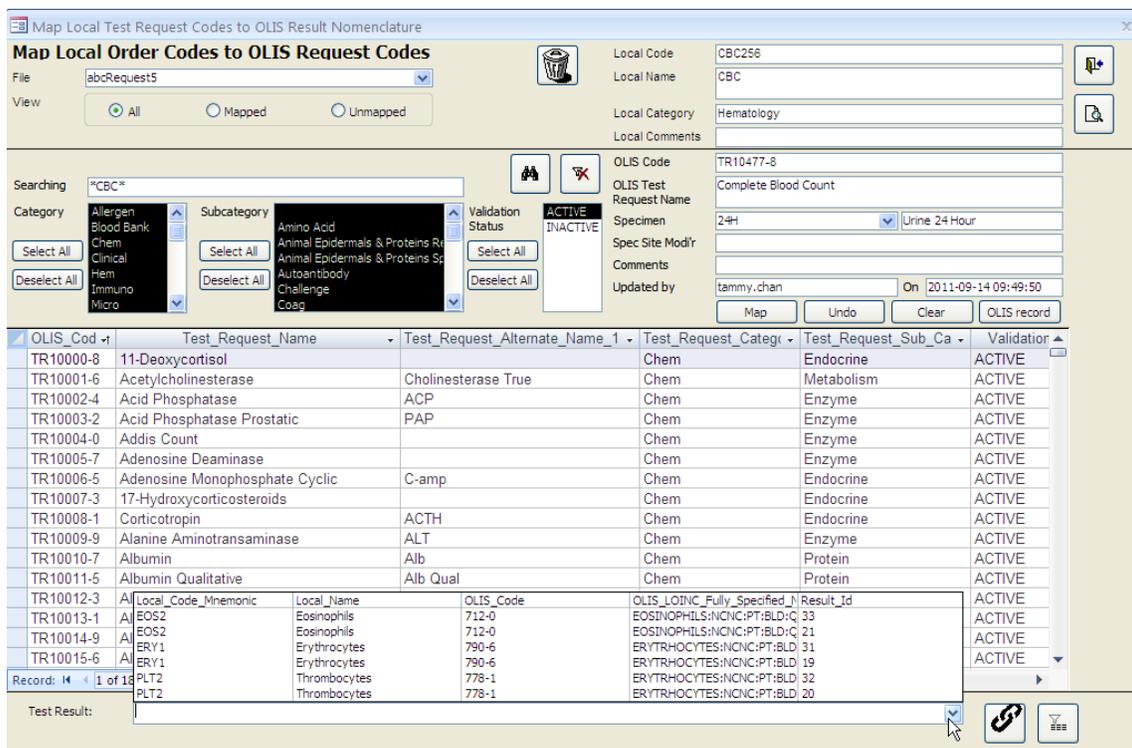
Figure 8.28 Test Result Codes selection List for Test Request

Select the OLIS code or OLIS Fully Specified to link to the Test request in the Map Local Order Codes screen and click the " link button"

8.11 View List of Local Test Result Codes

Select the List of Local Test Request button to view the Mapped Local Test Request Codes
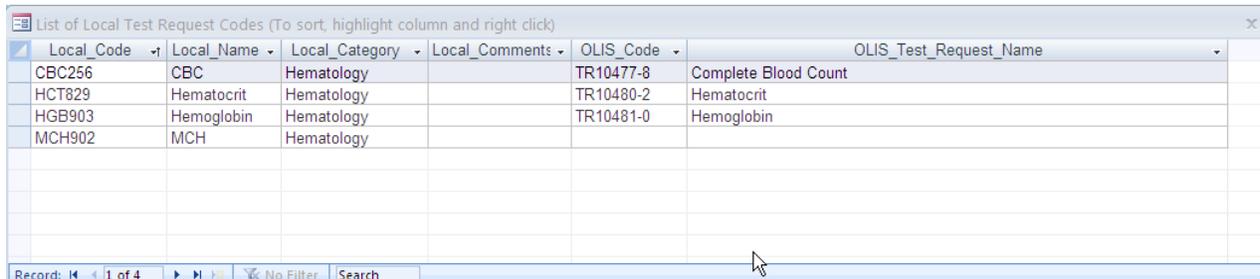
9.0   Mapping Laboratory Test Result Codes

9.1   Background

Once the local laboratory test results dataset has been imported in the OLIS Mapping Tool, mapping of local test result codes can take place with the OLIS Test Results Nomenclature. This section will provide detailed information on how to map local test result codes using the OLIS Mapping Tool.

9.2   Map Local Result Codes to OLIS Result Codes Screen

To start mapping the local laboratory test results dataset to the OLIS Test Results Nomenclature select "Map Result Codes" from the Main Menu. The following screen will appear (Figure 9-1):
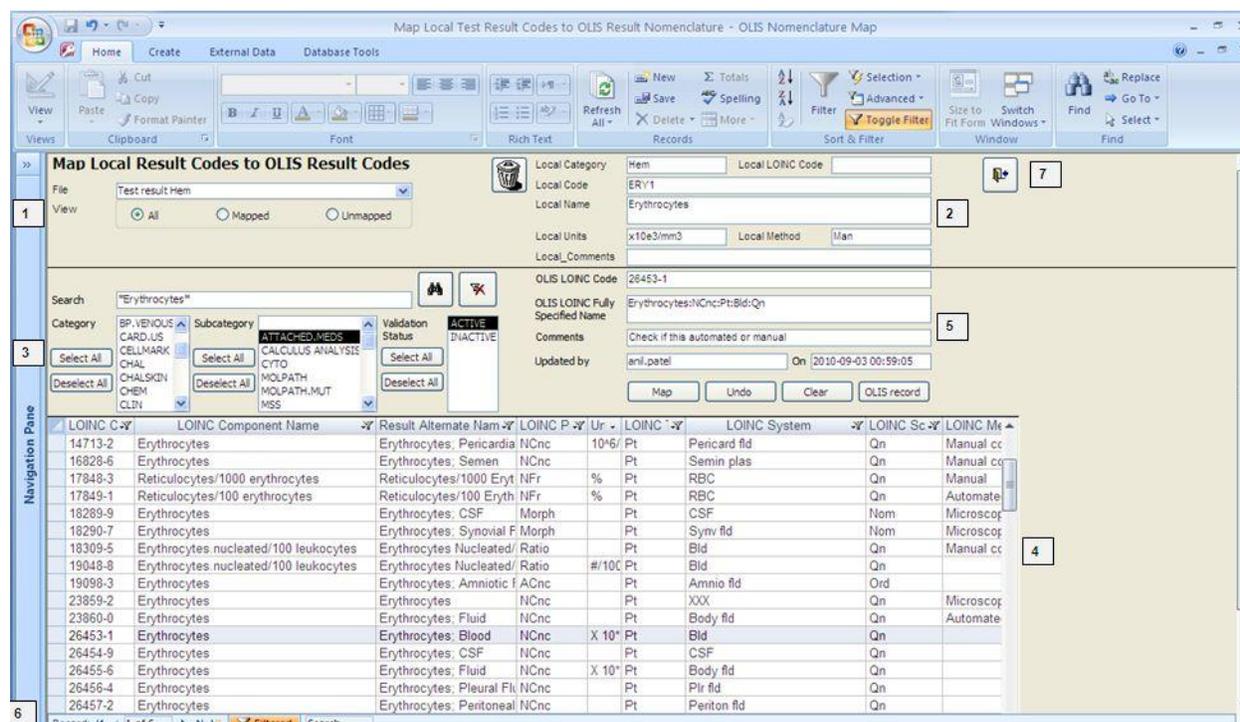
Figure 9-1: Map Local Result Codes to OLIS Result Codes Screen

This screen consists of 7 sections:

1: Data File   2: Local Code Display
3: Search Criteria   4: Search List
5: Mapped Code Display   6: Navigation
7: Exit

> **Usage Tip:**
>
> The "Comments" associated with the OLIS LOINC code in the "Map Local Result Codes to OLIS Result Codes" screen are not comments from the OLIS Test Results Nomenclature table.

> **Usage Tip:**
>
> Upon accessing the mapped test result codes, the OLIS test result codes are sorted by the LOINC code.
> > ➢ **Option:** To display the OLIS test result codes alphabetically based upon the LOINC Component name, select Records then Apply Filter/Sort.

9.3 Data File Section

The Data "File" section displays the name of the dataset file currently selected (Figure 9-2). Only the test results dataset files are displayed. To select a different test results dataset file, click on the drop down list:
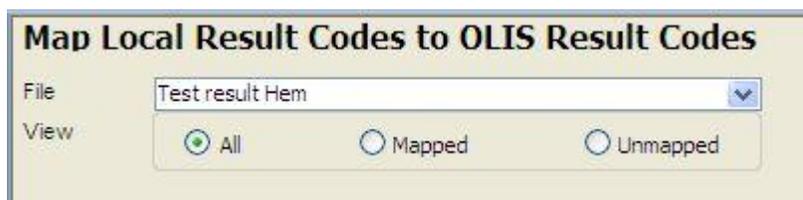
Figure 9-2: Data Field Section

The buttons in the "View" section will filter the data contained in the dataset (Figure 9-3):

- All: Enables the selection of all records within the dataset

- Mapped: Enables selection of records that have already been mapped to the OLIS Nomenclature

- Unmapped: Enables selection of records that have not yet been mapped to the OLIS Nomenclature
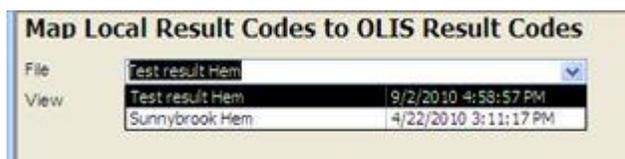
Figure 9-3: List of Imported Laboratory Test Results Datasets

9.4 Local Code Section

The Local Code section displays the details of the local laboratory test result codes from the imported local laboratory test dataset (Figure 9-4).

Figure 9-4: Local Code Display Section

This section contains the following fields:

1. Local Category: A local mnemonic

2. Local LOINC Code: If the local test result code was previously mapped, this field will be populated. Confirm the previously mapped LOINC code matches the currently selected OLIS nomenclature code

3. Local Code: A local mnemonic

4. Local Name: The test that is locally described

5. Local Units: The local unit of measure associated with this result

6. Local Method: Notes on the local method associated with this result

7. Local Comments: Notes for future discussion

8. Trash: Deletes the currently displayed local test results dataset (Figure 9-5). Clicking this button will not delete the entire dataset. It will delete only the displayed record. When the "Trash" button is clicked, the user is prompted to confirm the deletion. Select the "Yes" button to confirm the deletion or the "No" button to cancel the deletion

Figure 9-5: Confirm Record Deletion

9.5 Search Criteria Section

The information displayed in the search section is used to define the search criteria needed to find the corresponding test result in the OLIS Test Results Nomenclature (Figure 9-6). This section is analogous to the Search Criteria

section found on the Test Request Mapping section, except that the data values within the List Boxes are those from OLIS Test Results Nomenclature. As a default setting, all categories and sub-categories are selected as well as an Active validation status.
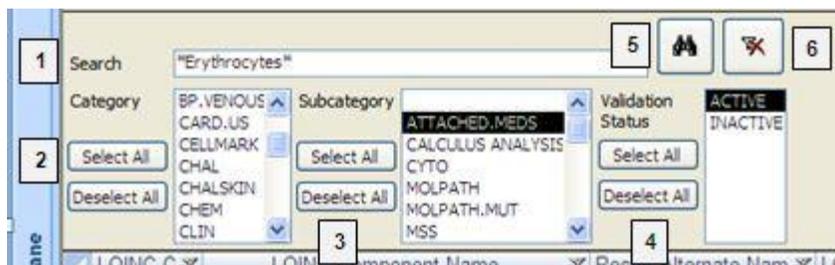
Figure 9-6: Search Criteria Section

Usage Tip:

When mapping local test request or test result codes to the OLIS Nomenclature, the Search function treats a blank category or sub-category as a valid entry.
  ➢ **Solution:** When searching, either select all categories or include blank entries.

The Search Criteria section consists of:

1. Searching: The local laboratory test name automatically populates this field and has a proceeding and trailing asterisk

2. Category: To select one or more OLIS test result categories to search against

   - To select an additional category, hold down the Control key and click the additional desired category

   - To select a range of categories, click the first desired category. Hold down the Shift key and click the last desired category

3. Sub-category: To select one or more of the OLIS test result sub-categories to search against

   - To select an additional sub-category, hold down the Control key and click the additional desired sub-category

   - To select a range of sub-categories, click the first desired category. Hold down the Shift key and click the last desired sub-category

4. Validation Status: To select the OLIS Test Result Validation Status to search against

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5. Binocular Icon: To start the search; and

6. Clear Icon: To clear the search results.

"Select All" and "Deselect All" are used to select or deselect all values in the List Box.

9.5.1 "Search Expression" Field Section

The parameters entered into the Search Expression field searches against the fields listed below in OLIS Test Results Nomenclature (Figure 9-7).
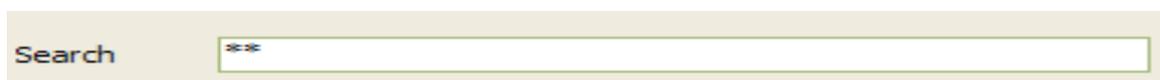
Figure 9-7: Search Expression Field Section

This search takes place in the following order:

- LOINC Code
- Result Alternate Names (1,2,3)
- LOINC Short Name
- LOINC Component
- LOINC Property
- LOINC Time
- LOINC System
- LOINC Scale
- LOINC Method

The OLIS Mapping Tool searches multiple parameters by placing a wildcard (*) before the first and the after the last search parameter. By placing asterisks between parameters (terms) regardless of the number of parameters, the search will return a large set of records. The search is not case sensitive. Please make sure that the search criteria are specified in above order. It is not necessary to specify the search criteria for all fields. However, those that are specified must be listed in the order mentioned above (see examples below).

Note: Although the local laboratory test name is automatically inserted between the asterisks, the user can edit this name if the name is not appropriate or descriptive. When a user enters multiple search criteria, always precede the first search parameter with a wild card.

9.5.1.1   Search Example 1

Entered parameter: "*Lymphocytes* *BLD* *QN*" (Figure 9-8).

Search List Result: The Search List will return a set of records where Lymphocytes are specified (most likely) as Alternate Names (1, 2 and 3) or Component Name, BLD (a value found in LOINC_SYSTEM column) and QN (a value found in LOINC_SCALE column).

Figure 9-8: Example 1 Search List Results

9.5.1.2   Search Example 2:

Entered parameter: "*Lymphocytes* *QN* *BLD*" (Figure 9-9).

Search List Result: Since the last two parameters have been reversed, and this goes against the search parameter definition rules, the Search List will return no records.

Figure 9-9: Example 2 Search List (No records returned)

9.5.2   List Box Section

The List Box section will allow the user to select and filter more specific information in each category and sub-category (Figure 9-10).

Figure 9-10: List Box Section

- To select individual values, click on the preferred value (Figure 9-10)

- To select multiple consecutive values, select the starting value, hold down the SHIFT key and then select the last value in the row

- To select multiple non-consecutive values, click on the first value, hold down the CTRL key and select the desired values (in a consecutive or non-consecutive order)

- To include all values in the List Box, click the "Select All" button. To deselect all values click "Deselect All" button (Figure 9-11)
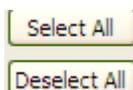
Figure 9-11: List Box Button

9.5.3   Search Icons

The "Search" (Binoculars) button is used to execute a search against OLIS Test Results Nomenclature after the search criteria have been entered into "Searching" field (Figure 9-12).

Figure 9-12: Search (Binocular) Button

The "Clear Search Criteria filter" button removes any filtering criteria entered in the "Searching" field or selected in list boxes (Figure 9-13). When the icon is clicked, the Search List section will display all records from the OLIS Test Results Nomenclature.

Figure 9-13: Remove Filter Button

9.6   Search List Section

The Search List section displays the returned set of query results (Figure 9-14). By default, this section displays all OLIS Test Results Nomenclature records. When search parameters are defined in the "Search" field and the "Search" button is clicked, the Search List will display only search results that correspond to the query parameters. To sort, the default setting is on the LOINC Code field.

Figure 9-14: Search List Section (correct record returned)

Columns within the Search List can be hidden, reordered, frozen and sorted upon. To view column options, right click on the desired column and select the appropriate option (Figure 9-15). The order of sorted results will not be retained once the screen is closed.
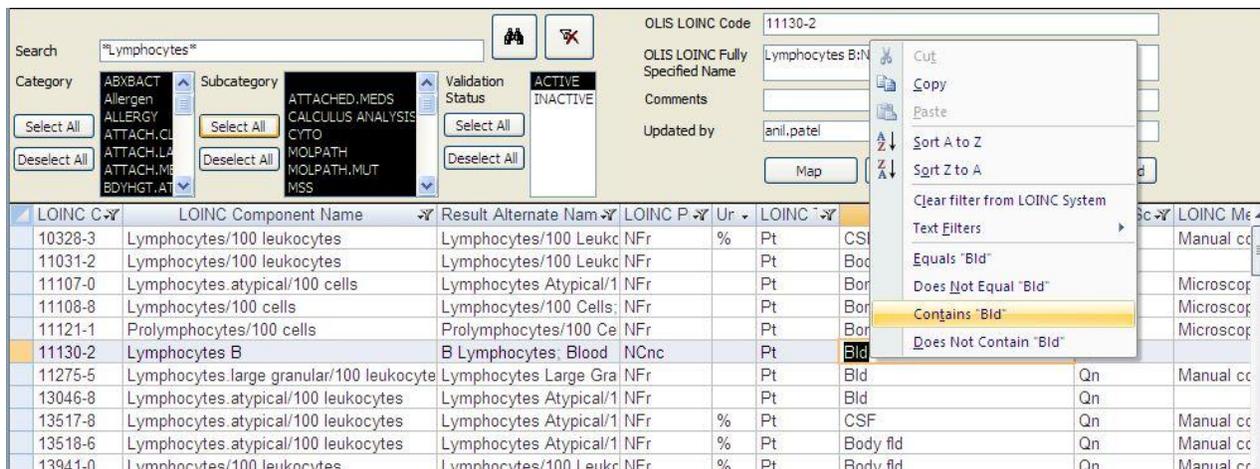

Figure 9-15: Search List Column Options

9.7   Mapped Code Section

The Mapped Code section includes the local laboratory test results and corresponding OLIS Tests Results Nomenclature information (Figure 9-16).

Figure 9-16: Mapped Code Section

The Mapped Code section consists of the following:

1. OLIS LOINC Code: Displays the OLIS LOINC Code that has been mapped to the local laboratory test result displayed in Local Code field. This field cannot be edited. The field appears empty if the user has not performed mapping before

2. OLIS LOINC Fully Specified Name: Displays the OLIS LOINC Fully Specified Name. This field cannot be edited. The field appears empty if the user has not performed mapping before

3. Comments: Used to capture the reasoning for the mapping. This is a free-text field and is editable

4. Updated by: The name of person performing the mapping (automatically populated based on the Windows login userID of the person logged onto the computer) is captured along with the time and date the mapping was performed. If the mapping process is divided amongst multiple staff members, this feature provides a means of assessing "who mapped what and when"

5. Buttons:

- Map: Used to map the OLIS test result to the local laboratory test result. Mapping can also be performed by double-clicking any of the fields within a record on the Search List section

- Undo: Used to return to the value of the mapped OLIS record to the last previously mapped value

- Clear: Used to clear all details from the Mapped Code section

- OLIS Record: Used to display all the details of the OLIS test result record mapped or OLIS test result record selected in the Search List screen (Figure 9-17)

Figure 9-17: Details of the OLIS Test Result Record Screen

9.7.1   Mapping Test Results

To map a local laboratory test result to OLIS Test Results Nomenclature record:

4. Use the "Searching" field to narrow down the number of records displayed in the Search List (Figure 9-18)

5. Select the OLIS result record by clicking it once

6. Click the "Map" button

Note: Double clicking the record in the Search List will automatically map the OLIS Nomenclature record to the local laboratory test result record

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Usage Tip:

Duplicate entries in the local test mnemonic are not recognized. Only the first entry will be mapped.
  ➢ **Solution:** Be certain to remove or rename duplicate local test mnemonic entries before starting the mapping task.
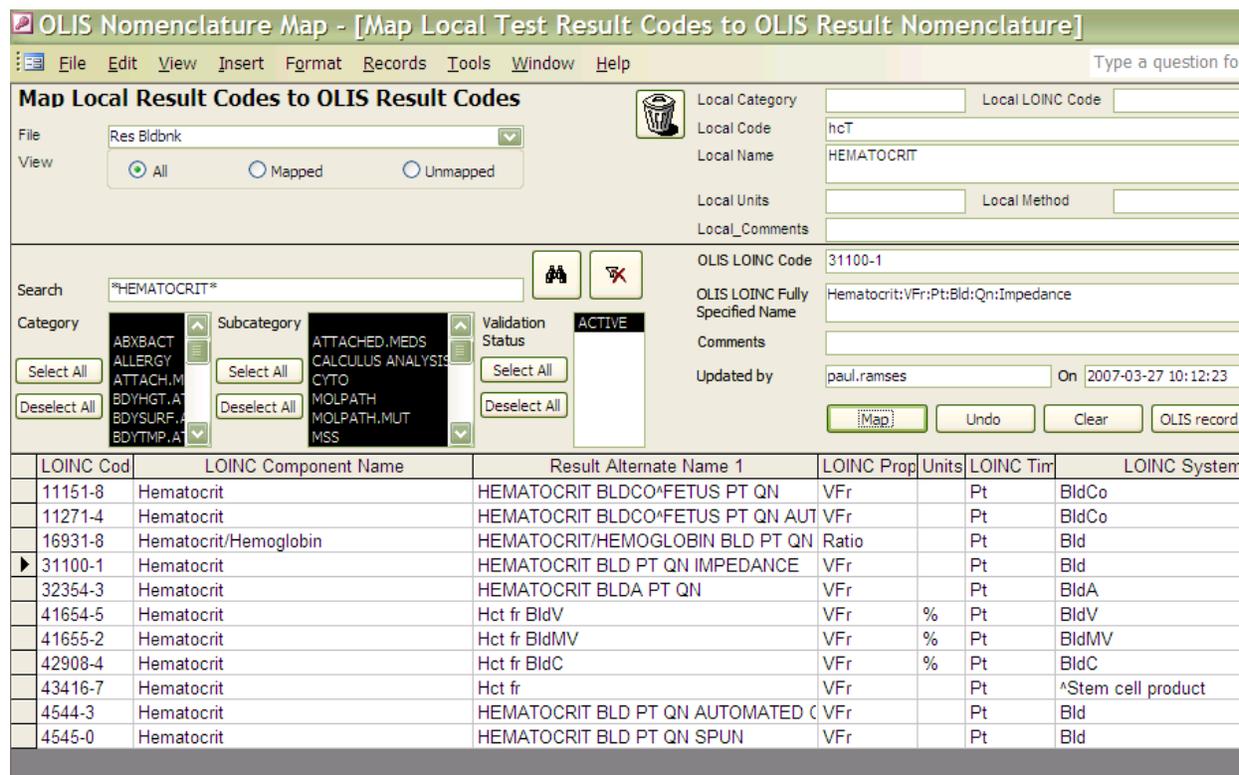

Figure 9-18: Map Local Result Codes to OLIS Result Codes Screen

The mapped LOINC code value from the Search List section appears in the "OLIS Code" field. Click the "Undo Mapping" button to undo the mapping action and the

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previous value (if available) will appear in the "OLIS LOINC Code" and "OLIS Fully Specified Name" fields. Clicking the "Clear" button will clear values from both the "OLIS Code" and the "OLIS Fully Specified Name".

9.8 Navigation Section

The Record Navigation section contains two rows (Figure 9-19). The first row is used to navigate between the OLIS test result records within the Search List. It is not necessary to use the first row since the same goal can be achieved by using the vertical scroll bar.

The second row is used to navigate between imported dataset records.

Figure 9-19: Record Navigation Section

The details outlined below pertain to the second Navigation row:

- The field within the Record Navigation section displays the user's current record location within the imported dataset
- The Record Navigation section also displays the total number of records within a dataset as "[current record position] of [total number of records]"
- The "|<" and "|>" buttons allow the user to navigate to the first and the last record (respectively) in the dataset
- The "<" and ">" buttons allow the user to navigate to the previous and the next record (respectively) in the dataset

9.9 Linking Test Result to Test Request

Background

After completing the Test request and Test result Mapping. You may link the Test request code to the Test Result code. All LIS and HIS systems have the relationship between the Test order and the results. The OLIS mapping tool provides a button to that can link the Test Result to the Test Request

The Linked Local Request Code to Result Codes shows the code linked to the Test request Code (e.g. CBC256) in the example (Figure 9-20), the figure shows the Eosinophils (EOS2), but the navigation bar can be used to view the other Test Request records for the Local Test Result, EOS2 .
If the Test request record linked to the Test result is Incorrect, the delete record button can be used to remove the link.
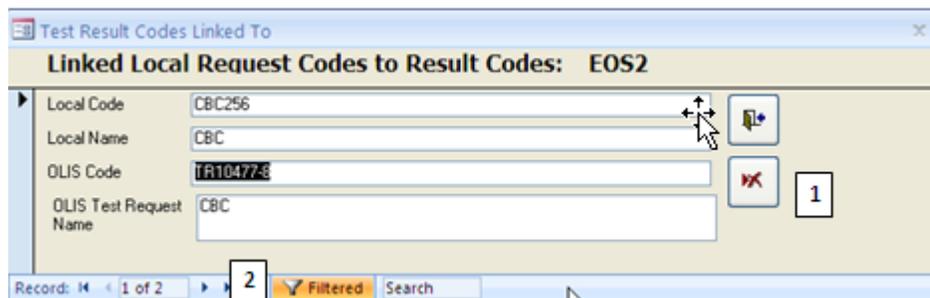

Figure 9-20: Test Request Code linked to Result Code

1. Delete Record Link   **2**. Navigation bar

9.10 Linking the Test Request Code to the Test Result code

To link the test result code to the Test Result code, the Test request must be first be mapped and in the mapped status. Test request codes that are imported and not mapped will not be available for linkage to the Test Result and not seen in the Test Request selection list (Figure 9.21). The Test Result and Test request link can be done on either the Map Local Result Codes to OLIS Result Code Window or Map Local Test Result Codes to OLIS Test Result Code.
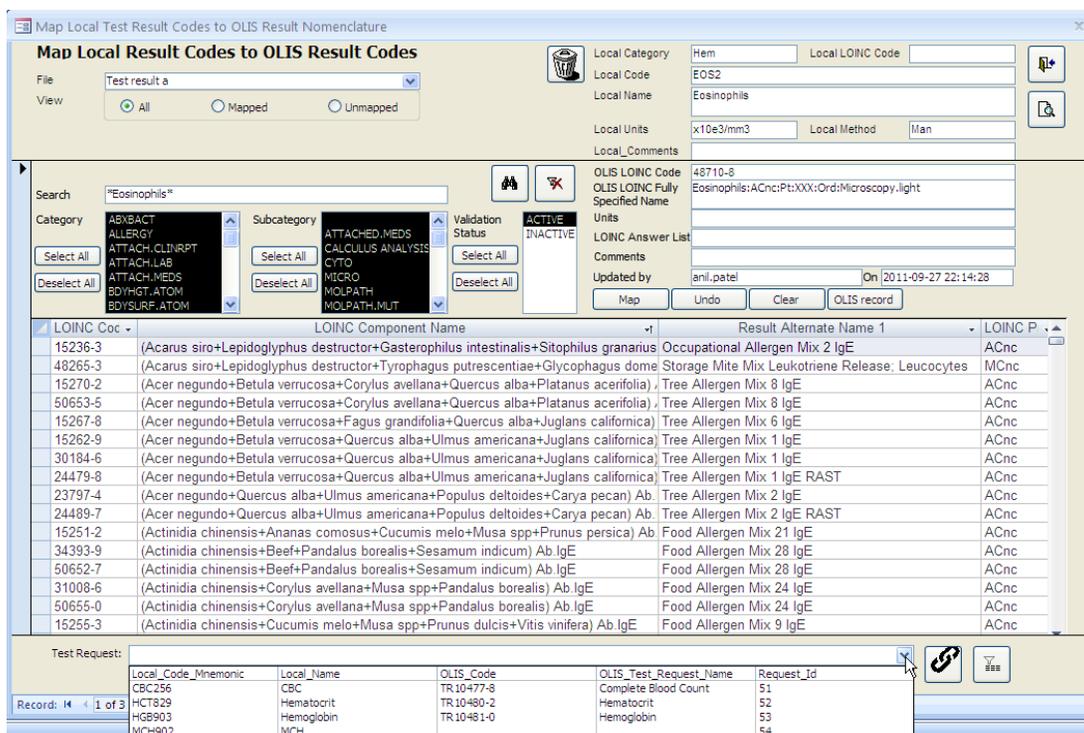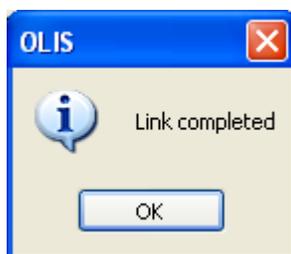
Figure 9.21 Test Request Codes selection List for Test Result

Select the OLIS code or OLIS Fully Specified to link to the Test request in the Map Local Order Codes screen and click the "link button"

After the link has been established the link completed icon will appear

9.11 View List of Local Test Result Codes

Select the List of Local Test Requestd button to view the Mapped Local Test Request Codes

Figure 9-22 List of Local Test Request Codes

9.12 Exit Section

The Exit section is located at the top right portion of the Mapping screen and contains the Exit button used to exit the Mapping screen and return to the Main Menu screen (Figure 9-23).

Figure 9-23: Exit Button

10.0 Mapping Laboratory Microorganism Codes

10.1 Background

Once the Microorganisms dataset has been imported in the OLIS Mapping Tool, mapping of local Microorganism codes can take place with the OLIS

Microorganism Nomenclature. This section will provide detailed information on how to map local Microorganism codes using the OLIS Mapping Tool.

10.2 Map Microorganism Codes to OLIS Microorganism Codes Screen

To start mapping the local laboratory Microorganism dataset to the OLIS Microorganism Nomenclature select "Map Microorganism Codes" from the Main Menu. The following screen will appear (Figure 10-1):
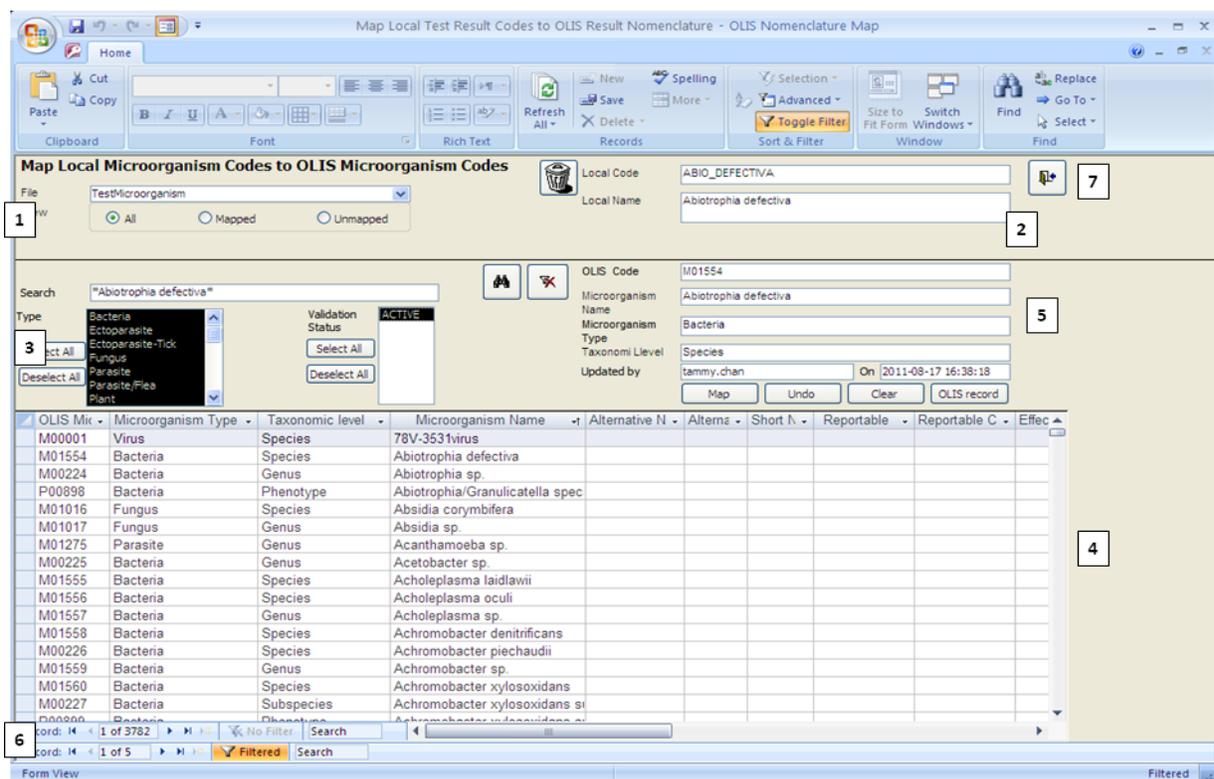

Figure 10-1: Map Local Microorganism Codes to OLIS Microorganism Codes Screen

This screen consists of 7 sections:

1: Data File   2: Local Code Display
3: Search Criteria   4: Search List
5: Mapped Code Display   6: Navigation
7: Exit

10.3 Map Microorganism Codes to OLIS Microorganism Codes Screen

The Data "File" section displays the name of the dataset file currently selected (Figure 10-2). Only the test results dataset files are displayed. To select a different test results dataset file, click on the drop down list:

Figure 10-2: Data Field Section

The buttons in the "View" section will filter the data contained in the dataset (Figure 10-3):

- All: Enables the selection of all records within the dataset

- Mapped: Enables selection of records that have already been mapped to the OLIS Nomenclature

- Unmapped: Enables selection of records that have not yet been mapped to the OLIS Nomenclature

Figure 10-3: List of Imported Laboratory Microorganism Datasets

10.4 Local Code Section

The Local Code section displays the details of the local laboratory Microorganism codes from the imported local laboratory Microorganism dataset (Figure 10-4).

Figure 10-4: Local Microorganism Code Display Section

This section contains the following fields:

1. Local Code: A local mnemonic

2. Local Name: The Microorganism that is locally described

3. Trash: Deletes the currently displayed local Microorganism dataset (Figure 10-5). Clicking this button will not delete the entire dataset. It will delete only the displayed record. When the "Trash" button is clicked, the user is prompted to confirm the deletion. Select the "Yes" button to confirm the deletion or the "No" button to cancel the deletion

Figure 10-5: Confirm Record Deletion

10.5 Search Criteria Section

The information displayed in the search section is used to define the search criteria needed to find the corresponding test result in the OLIS Microorganism Nomenclature (Figure 10-6). This section is analogous to the Search Criteria section found on the Microorganism Mapping section, except that the data values within the List Boxes are those from OLIS Microorganism Nomenclature. As a default setting, all Types selected as well as an Active validation status.
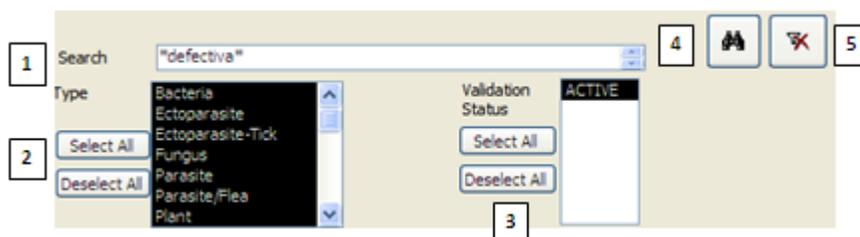

Figure 10-6: Search Criteria Section

Usage Tip:

When mapping local test request or test result codes or Microorganism to the OLIS Nomenclature, the Search function treats a blank category as a valid entry.
  ➢ **Solution:** When searching, either select all categories or include blank entries.

The Search Criteria section consists of:

1. Searching: The local laboratory test name automatically populates this field and has a proceeding and trailing asterisk

2. Category: To select one or more OLIS Microorganism type to search against

    - To select an additional category, hold down the Control key and click the additional desired Types

    - To select a range of categories, click the first desired category. Hold down the Shift key and click the last desired category

3. Validation Status: To select the OLIS Microorganism Validation Status to search against

4. Binocular Icon: To start the search; and

5. Clear Icon: To clear the search results.

"Select All" and "Deselect All" are used to select or deselect all values in the List Box.

10.5.1 "Search Expression" Field Section

The parameters entered into the Search Expression field searches against the fields listed below in OLIS Test Results Nomenclature (Figure 10-7).
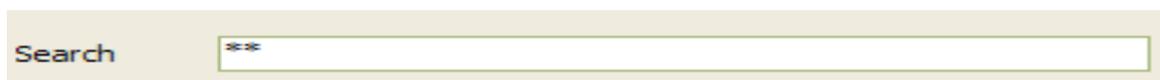
Figure 10-7: Search Expression Field Section

This search takes place in the following order:

- OLIS Microorganism Code

- Microorganism Type

- Microorganism Name

- Result Alternate Names (1,2)

- Short Name

The OLIS Mapping Tool searches multiple parameters by placing a wildcard (*) before the first and the after the last search parameter. By placing asterisks between parameters (terms) regardless of the number of parameters, the search will return a large set of records. The search is not case sensitive. Please make sure that the search criteria are specified in above order. It is not necessary to specify the search criteria for all fields. However, those that are specified must be listed in the order mentioned above (see examples below).

Note: Although the local laboratory test name is automatically inserted between the asterisks, the user can edit this name if the name is not appropriate or descriptive. When a user enters multiple search criteria, always precede the first search parameter with a wild card.

10.5.1.1 Search Example 1

Entered parameter: "*Abiotrophia* (Figure 10-8).

Search List Result: The Search List will return a set of records where Abiotrophia are specified (most likely) as Alternate Names (1 and2) or Microorganism name Name.

Figure 10-8: Example 1 Search List (3 records returned)

10.5.1.2 Search Example 2

Entered parameter: "*Abiotrophia**Virus* (Figure 10-9).

Search List Results: The search List will return a set of records where nothing is found

Figure 10-9: Example 1 Search List (No records returned)

10.5.2 List Box Section

The List Box section will allow the user to select and filter more specific information in each Microorganism Type Figure 10-10).
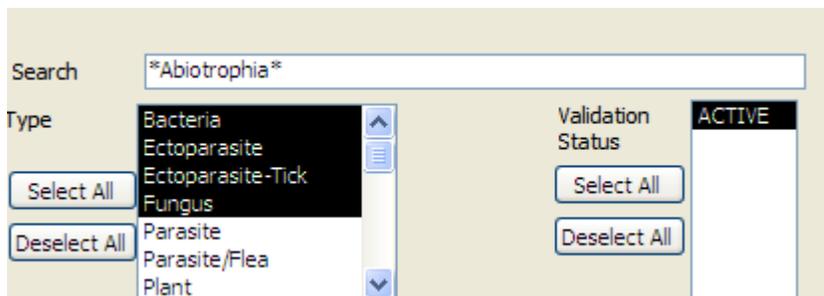

Figure 10-10: List Box Section

- To select individual values, click on the preferred value (Figure 10-10)

- To select multiple consecutive values, select the starting value, hold down the SHIFT key and then select the last value in the row

- To select multiple non-consecutive values, click on the first value, hold down the CTRL key and select the desired values (in a consecutive or non-consecutive order)

- To include all values in the List Box, click the "Select All" button. To deselect all values click "Deselect All" button (Figure 10-11)
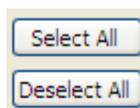

Figure 10-11: List Box Button

10.5.3 Search Icons

The "Search" (Binoculars) button is used to execute a search against OLIS Test Results Nomenclature after the search criteria have been entered into "Searching" field (Figure 10-12).

Figure 10-12: Search (Binocular) Button

10.5.4 Remove Filter Icon

The "Clear Search Criteria filter" button removes any filtering criteria entered in the "Searching" field or selected in list boxes (Figure 10-13). When the icon is clicked, the Search List section will display all records from the OLIS Test Results Nomenclature.

Figure 10-1: Remove Filter Button

10.6 Search List Section

The Search List section displays the returned set of query results (Figure 10-14). By default, this section displays all OLIS Test Results Nomenclature records. When search parameters are defined in the "Search" field and the "Search" button is clicked, the Search List will display only search results that correspond to the query parameters. To sort, the default setting is on the LOINC Code field.

Figure 10-2: Search List Section (correct record returned)

Columns within the Search List can be hidden, reordered, frozen and sorted upon. To view column options, right click on the desired column and select the appropriate option (Figure 10-15). The order of sorted results will not be retained once the screen is closed.
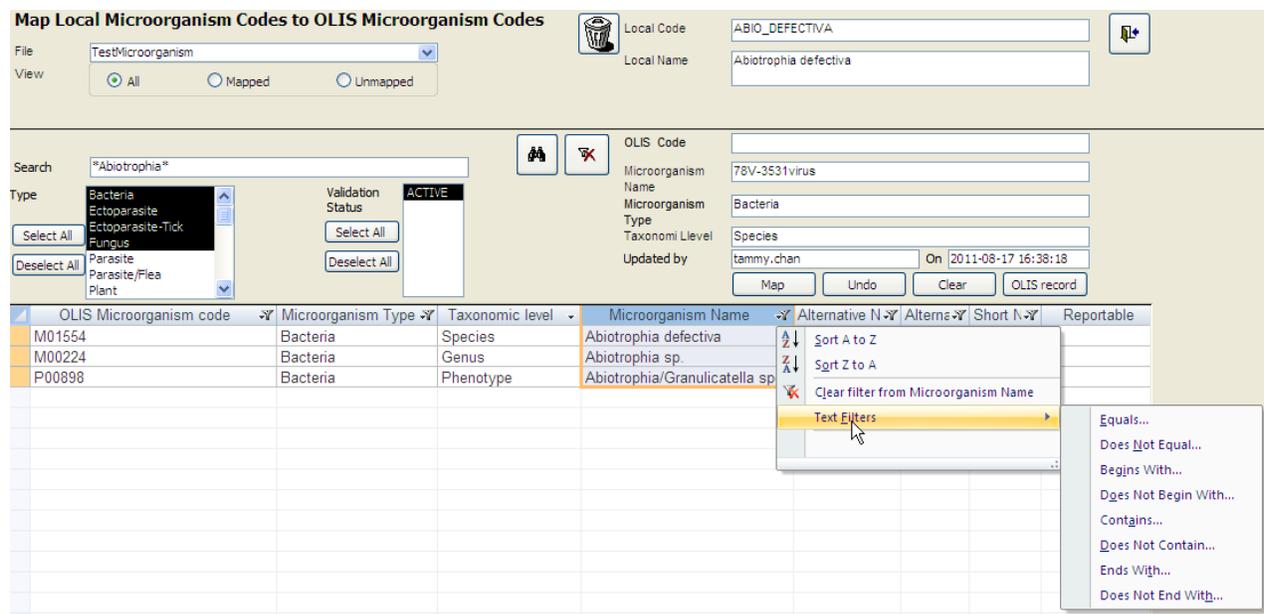
Figure 10-3: Search List Column Options

10.7 Mapped Code Section

The Mapped Code section includes the local laboratory Microorganism Name and corresponding OLIS Microorganism Nomenclature information (Figure 10-16).
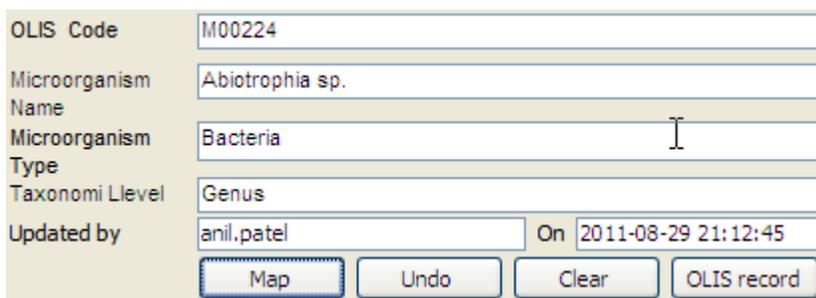

Figure 10-4: Mapped Code Section

The Mapped Code section consists of the following:

5. OLIS Code: Displays the OLIS Code that has been mapped to the local laboratory Microorganism Name displayed in Local Code field. This field cannot be edited. The field appears empty if the user has not performed mapping before

6. Comments: Used to capture the reasoning for the mapping. This is a free-text field and is editable

7. Updated by: The name of person performing the mapping (automatically populated based on the Windows login userID of the person logged onto the computer) is captured along with the time and date the mapping was

performed. If the mapping process is divided amongst multiple staff members, this feature provides a means of assessing "who mapped what and when"

8. Buttons:

- Map: Used to map the OLIS test result to the local laboratory test result. Mapping can also be performed by double-clicking any of the fields within a record on the Search List section

- Undo: Used to return to the value of the mapped OLIS record to the last previously mapped value

- Clear: Used to clear all details from the Mapped Code section

- OLIS Record: Used to display all the details of the OLIS test result record mapped or OLIS test result record selected in the Search List screen (Figure 10-17)

Figure 10-5: Details of the OLIS Microorganism Record Screen

10.7.1 Mapping Microorganism

To map a local laboratory Microorganism to OLIS Microorganism Nomenclature record:

2. Use the "Searching" field to narrow down the number of records displayed in the Search List (Figure 10-18)

3. Select the OLIS result record by clicking it once

4. Click the "Map" button

Note: Double clicking the record in the Search List will automatically map the OLIS Nomenclature record to the local laboratory test result record

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Usage Tip:

Duplicate entries in the local test mnemonic are not recognized. Only the first entry will be mapped.
  ➢ **Solution:** Be certain to remove or rename duplicate local test mnemonic entries before starting the mapping task.

Figure 10-6: Map Local Microorganism Codes to OLIS Microorganism Codes Screen

The mapped LOINC code value from the Search List section appears in the "OLIS Code" field. Click the "Undo Mapping" button to undo the mapping action and the previous value (if available) will appear in the "OLIS Code" and "Microorganism name" field. Clicking the "Clear" button will clear values from both the "OLIS Code" and the "Microorganism name".

10.8 Navigation Section

The Record Navigation section contains two rows (Figure 10-19). The first row is used to navigate between the OLIS test result records within the Search List. It is not necessary to use the first row since the same goal can be achieved by using the vertical scroll bar.

The second row is used to navigate between imported dataset records.

Figure 10-7: Record Navigation Section

The details outlined below pertain to the second Navigation row:

- The field within the Record Navigation section displays the user's current record location within the imported dataset

- The Record Navigation section also displays the total number of records within a dataset as "[current record position] of [total number of records]"

- The "|<" and "|>" buttons allow the user to navigate to the first and the last record (respectively) in the dataset

- The "<" and ">" buttons allow the user to navigate to the previous and the next record (respectively) in the dataset

10.9 Exit Section

The Exit section is located at the top right portion of the Mapping screen and contains the Exit button used to exit the Mapping screen and return to the Main Menu screen (Figure 10-20).

Figure 10-20: Exit Button

11.0 Show Mapped Nomenclature Codes

11.1 Background

At ant stage of the mapping exercise, it is important to export and save mapped laboratory test datasets. This section will provide instructions on how progress of the mapped code can be viewed.

Figure 11-1: Show Mapped Nomenclature Code Screen

This screen consists of 6 sections:

1: Dataset selection tab   2: Code Display
3: Search Criteria   4: Filter
5: Refresh   6: Exit.

11.2 Local Codes Screen

- Dataset Selection Tab: Specify whether the test results, test requests. Microorganism dataset is selected.
- Code Display: Specify the records that are in the dataset fro the mapping tool
- The Search Criteria section consists of:

1. Searching by Client file Name: This is filename assigned during the import step

2. Search by Local Code: This allows filtering the imported test file for all the entries associated with the code or imputed term.

- Filter: Shows all records that match the search criteria.

- Refresh: Clears the filter and returns the complete record set

- Exit: Closes the form and returns to the main menu

11.2.1 Search Example 1:

Parameter entered in "Searching field": "*test*" (Figure 11-2).

Search list result: Since wildcards (*) are used, the OLIS Mapping Tool will search for all records in which contain the word "Test".

Figure 11-2: Show *test* filenames

11.2.2 Search Example

Parameter entered in "Searching field": "CBC256" (Figure 11-3).

Search list result: Since wildcards (*) are used, the OLIS Mapping Tool will search for all Local Codes in which contain the text "CBC256".

Figure 11-3: Show all codes with *CBC256* in Local Code Field

12.0 Exporting and Saving Mapped Laboratory Test Data

12.1 Background

At the completion of the mapping exercise, it is important to export and save mapped laboratory test datasets. This section will provide instructions on how to export and save mapped datasets.

12.2 Export Local Codes Screen

To export a mapped dataset select "Export Local Codes" from the Main Menu screen and the "Export Local Codes" screen will appear (Figure 12-1):
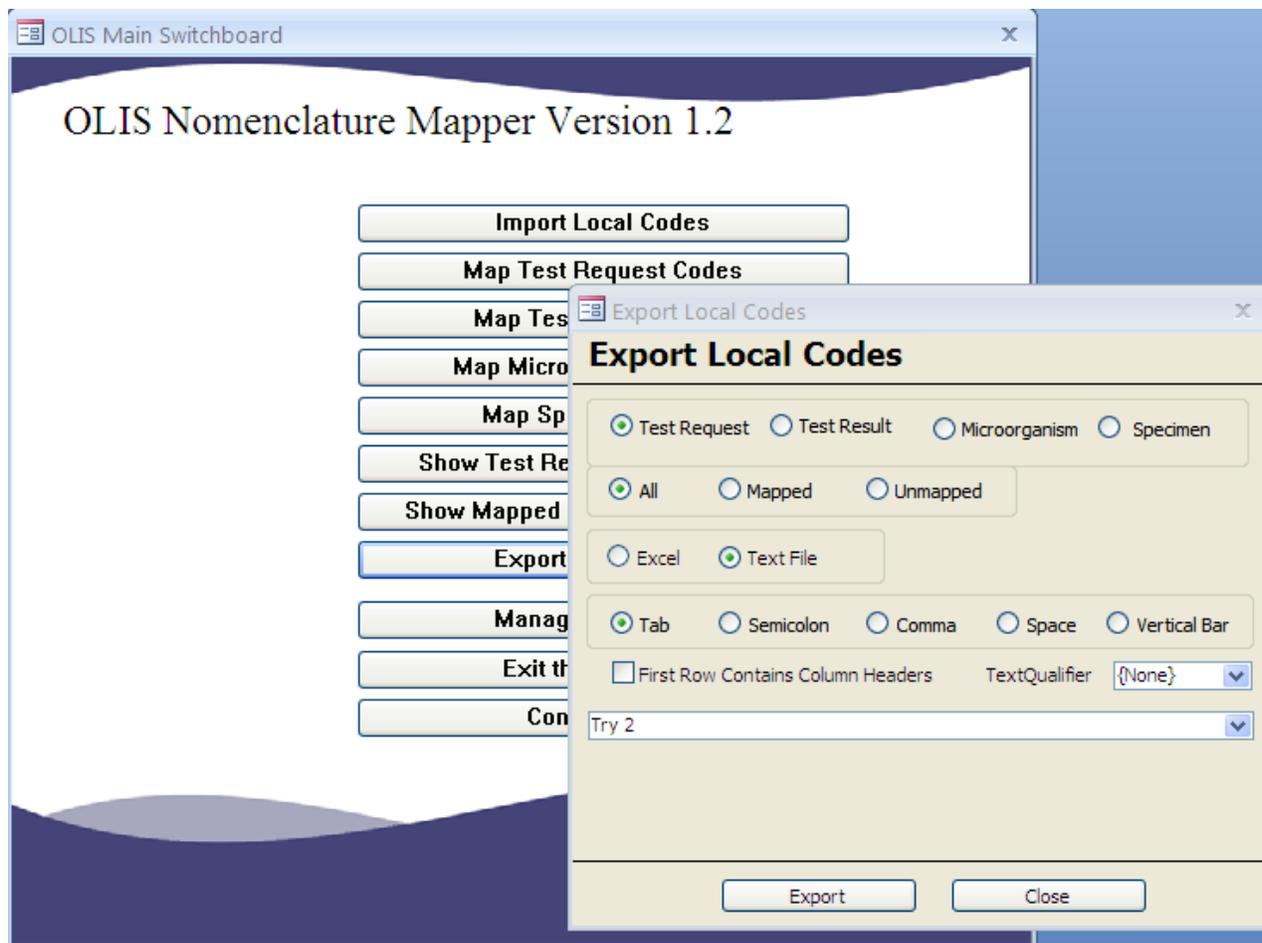
Figure 12-1: Export Local Codes Screen

Complete the following information:

- Nomenclature Dataset Type: Specify whether the test results or test requests dataset is exported

- File Format: Specify whether the exported file format is MS Excel or ASCII text file

- File Name: Select the file name for the dataset used during mapping

- All, Mapped or Unmapped: Specify whether All, Mapped or only Unmapped records should be included in the exported dataset

- Data Separators: If the selected file format is a "Text File" then a separator needs to be specified: Tab, Semicolon (:), Comma (,), Space or Vertical bar, pipe (|)

- Column Headers: Specify whether the first row in the exported dataset should contain data element headers (=column headers)

- Text Qualifier: Specify which Text Qualifier the dataset will contain (none, single or double quote)

12.3 Exporting Mapped Laboratory Test Data

Click the "Export" button and specify the file name and the location on the local PC where the file is saved (Figure 12-2).
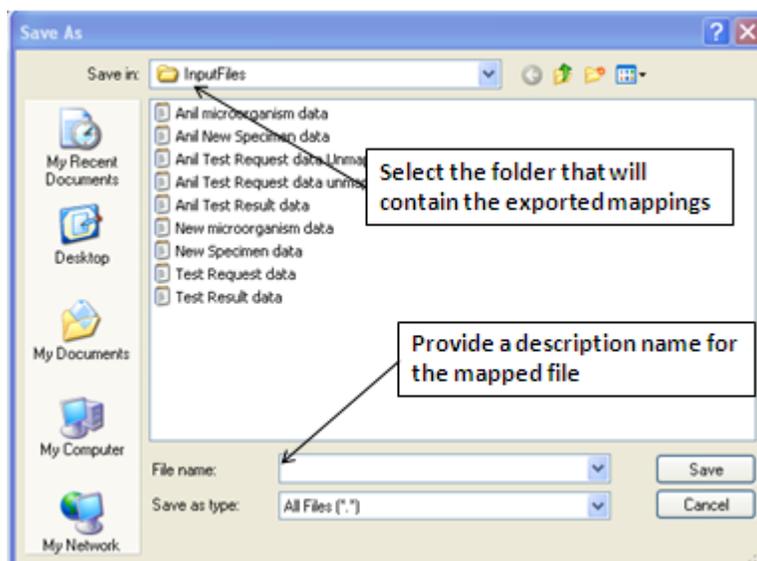
Figure 12-2: Specify Export File Name and Location

12.4 Saving Mapped Data

Click the "Save" button and the file will be exported. If the file is in MS Excel, it will be automatically saved in an Excel (97-2003) file format. The mapped files are now stored on the local computer, in the specified folder.

13.0 Exiting the OLIS Mapping Tool

After the user has completed using the OLIS Mapping Tool, the "Exit this Database" option from the Main Menu will allow the user to exit the OLIS Mapping Tool application (Figure 12-1).
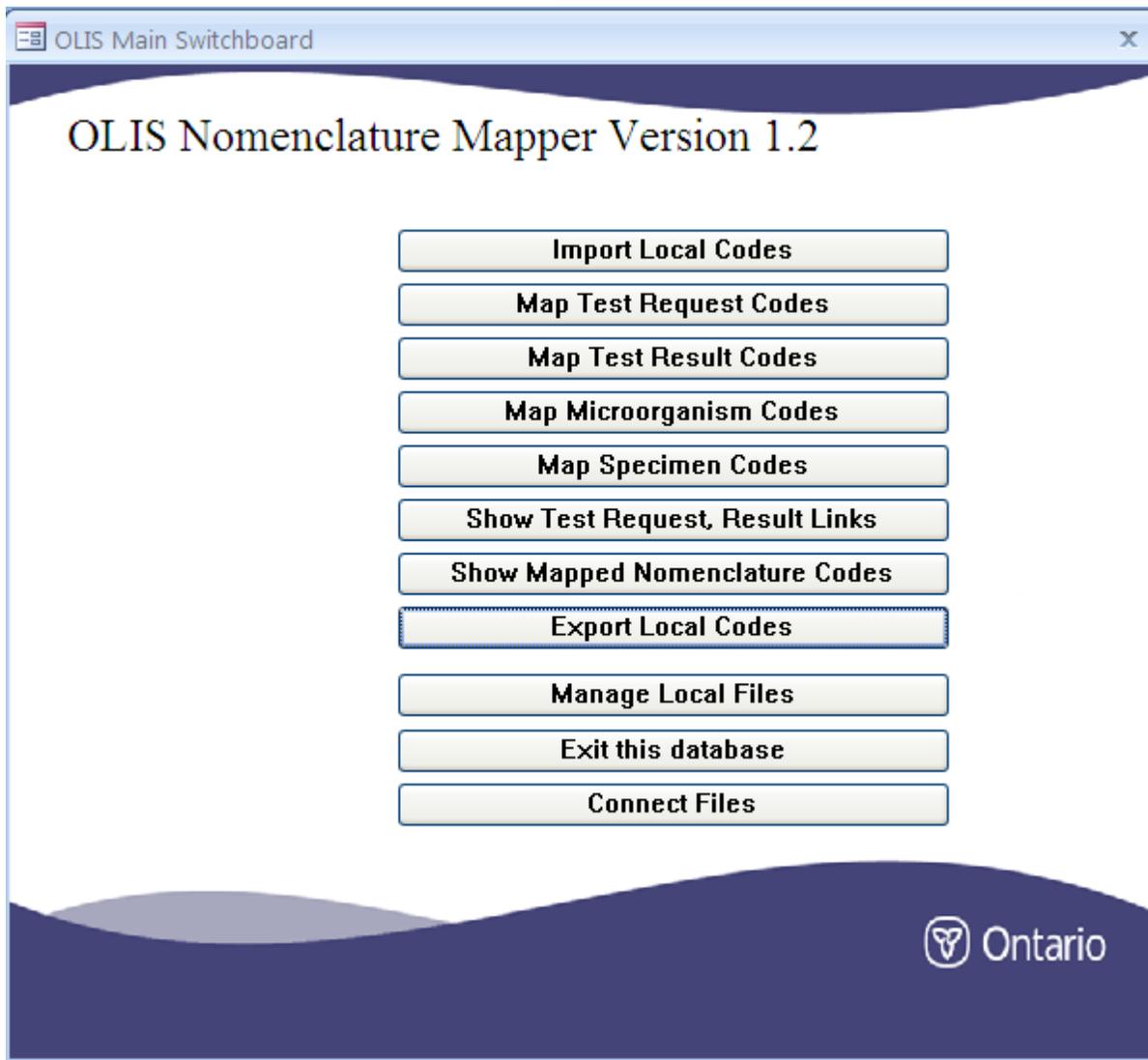
Figure 13-1: Main Menu – Exit this database

When the "Exit this database" option is selected, an empty MS Access screen is displayed (Figure 12-2).

Figure 13-2: MS Access Screen – No databases Loaded

Click on the close ("X") icon at the top right corner to close the MS Access applications.

14.0 Glossary

Terms, Acronyms and Abbreviations	Definition
Adopter	A user of the Ontario Laboratories Information System.
American Standard Code for Information Interchange (ASCII)	A coding system for representing English characters as numbers, with each letter assigned a number from 0 to 127. For example, the ASCII code for uppercase M is ASCII 77. Most computers use ASCII codes to represent text, which makes it possible to transfer data from one computer to another.
Battery	A group of laboratory tests which are performed on the same specimen and one order is placed for the entire group of tests. A Battery is typically performed in a specific clinical specialty and using a common laboratory instrument (e.g., CBC).
Binary large object (BLOB)	In computer programming, the verb glob or globbing is used to refer to an instance of pattern matching behavior. [3] The noun "glob" is used to refer to a particular pattern (e.g., "use the glob *.log to match all those log files").
Business Service Desk (BSD)	A team within the OLIS Program that is the first line of contact for Adopters on issues relevant to operation and usage of OLIS. Email: OLIS.BusinessSupport@ehealthontario.on.ca
Canada Health Infoway (CHI)	Infoway is an independent not-for-profit corporation created by Canada's First Ministers in 2001 to foster and accelerate the development and adoption of electronic health record (EHR) systems with compatible standards and communications technologies. CHI works with the country's ten provinces and three territories to implement private, secure EHR systems, enabling best practices and successful projects in one region to be shared or replicated in other regions.
Change Request Form	An electronic form which is completed by an OLIS Adopter to request a new OLIS Nomenclature code (test request, test result, specimen (source) or microorganism code).
Client Self Test (CST) Environment	A computer server running the most current version of the OLIS software that can be used to develop and test LIS to OLIS interfaces or CMS to OLIS interfaces. The environment simulates the OLIS Production environment but only contains fictitious patient and practitioner data to safeguard patient confidentiality.
Clinical Management System (CMS)	A computer system used by practitioners to manage data related to their patients. This term has the same meaning as Electronic Medical Record (EMR).
Common Name	A name in general use within a laboratory community and is often contrasted with a scientific name. A common name is not necessarily a commonly used name, nor is it necessarily considered less correct than a scientific name.

[3] Wikipedia (http://en.wikipedia.org/wiki/Blob_(computing))

Terms, Acronyms and Abbreviations	Definition
Component Name	The name of the analyte being measured.
Descriptive Name	A textual description which clearly describes a laboratory test.
Clinical Discipline (Modality)	A sub-specialty within the laboratory that is dedicated to performing groups of tests based on the area of science (discipline).
Duplicate codes	Two or more LIS codes that refer to the same test request or test result.
Effective Date	The first date the record is "active" within the OLIS Nomenclature.
Element	An atomic unit of data that has precise meaning or precise semantics.
End Date	The last date the record is "active" within the OLIS Nomenclature.
Extract	The publication of the local laboratory test request and local laboratory test result codes from the local LIS.
HL7 Message	A hierarchical structure associated with a trigger event. The HL7 standard defines trigger event as "an event in the real world of health care (that) creates the need for data to flow among systems".
Health Level Seven Standard (HL7)	A standard for the electronic data exchange of health care information. HL7 endeavours to standardize the format and protocol of the exchange of certain key sets of data among health care computer application systems, such as patient administration/registration, discharge, and requisitions for laboratory testing, results and clinical observations.
Hospital Information System (HIS)	A comprehensive, integrated information system designed to manage the administrative, financial and clinical aspects of a hospital.
Inactive Fag	A data element in the OLIS Nomenclature file which indicates whether the code is active (available for use) or inactive (no longer available for use).
Laboratory Information System (LIS)	A class of software which handles receiving, processing and storing information generated by laboratory testing processes. These systems often must interface with instruments and other information systems such as hospital information systems (HIS).
Laboratory Information System (LIS) codes	Codes used in a laboratory information system to define test request, specimen (source), test result and microorganism codes
Laboratory Service Provider	Is a facility that performs laboratory testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention, or the treatment of or impairment of disease, or for the assessment of health.
Laboratory Test	A laboratory test is a common term for laboratory test requests and laboratory test results. A laboratory test is a <u>scientific</u> analysis performed on a wide variety of specimens such as <u>blood</u>, urine, stool, body fluid, tissue, or from sources derived from a patient during their care or treatment (e.g., swabs, iv solutions, medication, aspirate or biopsies). Laboratory tests are used to determine <u>physiological</u> and <u>biochemical</u> states, such as <u>disease</u>, <u>mineral</u> content, drug effectiveness, and organ function. They are also used for diagnosis, monitoring, therapeutic drug monitoring, or genetic assessment of a patient.
Local Test Request Code	A test request code that resides in the Laboratory Information system (LIS), Clinical Management System (CMS) or Hospital Information System (HIS).
Local Test Result Code	A test result code that resides in the Laboratory Information system

Terms, Acronyms and Abbreviations	Definition
	(LIS), Clinical Management System (CMS) or Hospital Information System (HIS).
Logic Observation Identifier Names and Codes (LOINC®) Nomenclature Standard	A set of standard codes and universal nomenclature for identifying and encoding laboratory terms and clinical observations. The LOINC Nomenclature Standard has over 50,000 codes which provides a structured means of identifying and naming laboratory and medical tests or procedures. http://www.regenstrief.org/medinformatics/loinc/
Live System	Transmitting laboratory test requests and test results to the OLIS repository from a LIS to OLIS, or from a CMS to OLIS.
Local Laboratory Test Requests Dataset	A collection of information about test requests that a laboratory can perform. This list is also referred to in some laboratory information systems as a dictionary or data dictionary or data dictionary (since it defines the test requests that can be requested).
Local Laboratory Test Results Dataset	A collection of information about test results that a laboratory can report. This list is also referred to in some laboratory information systems as a dictionary or data dictionary (since it defines the test results that can be requested).
Mapping	The process of matching an OLIS test code and description to an organization's local test code and description.
Metadata	Defined as data about data. Metadata is a concept that applies mainly to electronically archived or presented data and is used to describe the a) definition, b) structure and c) administration of data files with all contents in context to ease the use of the captured and archived data for further use. For example, a web page may include metadata specifying what language it is written in, what tools were used to create it, where to go for more on the subject and so on. Attributes are the assigned qualities for specific elements of the data.
Mnemonic	Is a mind memory and/or learning aid. Commonly, mnemonics are verbal—such as a very short poem or a special word used to help a person remember something—but may be visual, kinesthetic or auditory. Mnemonics rely on associations between easy-to-remember constructs which can be related back to the data that is to be remembered.
Observation	The result of something seen or noted.
Ontario Laboratories Information System (OLIS)	An integrated, province-wide, information and order fulfillment system that allows for the electronic exchange of laboratory test information between authorized practitioners, specimen collection centres and laboratories.
OLIS Collaboration Portal	An area of the eHealth Ontario portal that provides information and tools to registered OLIS users.
OLIS List of Microorganisms	Describes names and unique identifier codes for medically significant bacteria, fungi, and viruses. It is used to code a specific microorganism as the value or result of the culture when a code from the OLIS Results Nomenclature such as "microorganism or agent identified" is used.
OLIS Nomenclature	A naming schema which provides an unambiguous and consistent system of names, unique codes and related information which a laboratory information system, hospital information system or clinical

Terms, Acronyms and Abbreviations	Definition
	management system uses to exchange data with OLIS. The OLIS Nomenclature includes the OLIS Test Requests and Test Results Nomenclature.
OLIS Nomenclature Maintenance Working Group	Subject matter experts within the OLIS Program who are responsible for maintenance of the OLIS Nomenclature.
OLIS Program	A division within eHealth Ontario responsible for the delivery of OLIS.
OLIS Program Coordinator	An individual from the OLIS Program responsible for liaising and supporting OLIS Adopters during the development and implementation of their LIS to OLIS interface.
OLIS Interface Specification	A technical document outlining the requirements that must be followed when developing an interface between a laboratory information system, hospital information system or clinical management system and the OLIS. The current OLIS Interface Specification is Version 1.07 (September 2010).
OLIS Test Requests Nomenclature	A naming schema used within OLIS to uniquely identify and describe test requests.
OLIS Test Results Nomenclature	A naming schema used within OLIS to uniquely identify and describe test results and observations.
OLIS Web Viewer	Software that has been developed for eHealth Ontario to allow queries to be submitted to the OLIS repository and to display laboratory test results returned by those queries.
Order (Orderable)	A collective term used to refer to one or more test requests.
Pan-Canadian Nomenclature Standard	A naming schema proposed by CHI for identifying and reporting laboratory test request and test results. This naming schema is based on the HL7 version 3.0 Standard and the LOINC Nomenclature Standard and takes into consideration Ontario and British Columbia's reporting requirements for laboratory test data.
Panel	A common group of test requests and test results that facilitate ordering and reporting.
Practitioner	OLIS recognizes four types of practitioners (physicians, dentists, nurse practitioners and midwives) that are authorized to order medical laboratory tests.
Production System	The final version of a particular product in which the release is considered to be very stable and relatively bug-free with a quality suitable for wide distribution and use by end users. It is sometimes referred to as the LIVE system.
Production Environment	A suite of computer servers running OLIS software which receive, store and respond to queries. This environment contains copies of patient test requests and test results including confidential personal health information and practitioner information.
Profile	A group of laboratory tests which are performed on two or more specimens and can belong to a specific clinical specialty or different clinical specialties.
Record	A row in database table.
Regenstrief Institute Inc.	Provides a Windows-based mapping utility called the Regenstrief LOINC Mapping Assistant (RELMA)® to facilitate searches through the LOINC Nomenclature Standard and to assist mapping of local codes to LOINC codes.
Retired codes	An OLIS test request or test result code that is no longer available to

Terms, Acronyms and Abbreviations	Definition
	submit new laboratory test request or result codes to OLIS.
Schedule of Benefits	A listing of the physician services that are covered by the Ontario Health Insurance Plan. For laboratories there is a separate schedule which lists the insured laboratory procedures.
Specialty (Sub-type)	A branch of medical laboratory science.
Specimen (Source)	Allows for test requests to be differentiated by the specimen that was used for the analysis (e.g., blood, urine, cerebrospinal fluid).
Specimen (Source) Dataset Extract	The publication of local specimen (source) codes from the local LIS.
Specimen (Source) File	A specimen list from HL7 version 2.5 Table 0070.
Specimen (source) dataset extract	The publication of local specimen (source) codes from the local LIS.
Test	A medical procedure or analysis performed to detect, diagnose, or evaluate disease, disease processes and susceptibility.
Test Request	A request for a laboratory test or medical procedure that is generated by a licences health care provider.
Test Result	The results of a laboratory test or medical procedure that is generated in response to a test request.
Testing System	A computer environment which contains either the current version or an unreleased version of LIS software and fictitious patient information. This system is used for development and training purposes.
XCA Code	A prefix for Canadian specific codes in OLIS Results Nomenclature.
XON Code	A prefix for Ontario specific codes in OLIS Results Nomenclature.

15.0 Troubleshooting

15.1 Background

This section provides troubleshooting tips for when errors arise during the use of the OLIS Mapping Tool. If the user continues to have issues with the application, contact your OLIS Program Coordinator for assistance.

15.2 Solutions to Application Issues

1. To prevent problems from arising during the use of the OLIS Mapping Tool, use the "Compact and Repair" and "Compact on Close" function (Refer to *Section 3.4*) in situations when errors result from an open database, form or object. The user can manually run the Compact and Repair command when a database is open or closed.

    - Click the Microsoft Office Button , point to "Manage". Click "Compact and Repair Database" under "Manage this database".

2. In situations where the cause of an error is unknown and there was no error before, create a new and blank database. Import the objects from the old database into the new one.

3. Errors can arise due to system upgrades and changes in permission. If this is suspected:

    a) Check to ensure all system requirements are met and no changes have taken place. If all system requirements are met, back up and archive any existing files for the OLIS_MAP folder

    b) Test MS Access to check if a database file can be opened or created. If this task can be completed, follow these steps:

    - Run a virus check

    - Back up and archive the OLIS_MAP folder

    - Delete the OLIS_MAP folder from the C: drive

    - Reboot the computer (this can reset temporary settings for services and applications that may have been incorrectly set)

    - Install the most recent OLIS Mapping Tool from the OLIS Collaboration Portal

    - If the problem persists, call the OLIS Coordinator

15.3 Usage Tips

Usage Tip:

The size of the Access files are not an indication of the number of entries that are within a file. As these files are used, they become larger in size due to unformatted space in their data structure. A newly created database can easily amount to being over 1 megabyte in size without data. For this reason, it is recommend that these files are regularly "Compacted and Repaired" to improve performance. To automatically compact and repair a database, complete the following tasks:
1. Click on the "Microsoft Office Button", and click "Access Options"
2. In the "Access Options" dialog box, click on "Current Database"
3. Under "Application Options", select the "Compact on Close" check box

Usage Tip:
If the lower portion of the Mapping screen is not immediately displayed.
  ➢ **Solution:** Turn off the Ribbon. This can be done by right clicking on the
  Microsoft Office Button , and then clicking "Minimize the ribbon".

Usage Tip:

The spelling of the Metadata descriptors (row column headings) is not important, for txt or CSV files but the relative order of their association is important. For Excel files the format must be Excel 97-2003 (Excel 2007 file format is not compatible).

Usage Tip:

If the Navigation Pane is accidentally opened (as shown on the left side in Figure 5-3), minimize the window by clicking the Shutter bar Open/Close Button . The upper portion of the screen displays the MS Access ribbon. To minimize this ribbon, right click the Microsoft Office Button . The lower portion of the Main Menu screen will be fully displayed.

Usage Tip:

When the file name for the local test request codes is typed incorrectly, an error window will appear, alerting the user that 2 parameters are required.

> **Solution:** Use the column header (Refer to section 4 of this guide - Extraction of Local Laboratory Test Datasets).

Usage Tip:

When importing data from an Excel spreadsheet file, if the column headers for the Excel file are not specified exactly, "#name?" will appear.

> **Solution:** Type in correct column headers.

Usage Tip:
When mapping local test request or test result codes to the OLIS Nomenclature, the Search function treats a blank category or sub-category as a valid entry.
> **Solution:** When searching, either select all categories or include blank entries.

Usage Tip:

When filtering the data in a Search List after a preliminary the user will sometimes get a warning that the filter operation was cancelled because the filter would be too long (see image below).   This occurs when the "Text Filter" option equals "term filtered on" is used.

> **Solution:** To narrow down the Search List, right click on a record cell to display a task menu. Use the "Text filter" options "Contain" or "Does Not Contain"

If the option "Text Filter" equals "term filtered on" is used the "Text Filter", a warning message displays. If this warning message is displayed, use the "Text Filter" option "Contain" or "Does Not Contain" rather than the "term filtered on" option.

Usage Tip:

Duplicate entries in the local test mnemonic are not recognized. Only the first entry will be mapped.
> **Solution:** Be certain to remove or rename duplicate local test mnemonic entries before starting the mapping task.

Usage Tip:

If a local test request code requires mapping to the same OLIS test request code but with more than one specimen source code, only the latter mapping will be retained.
> **Solution:** Create a new local source code.

Usage Tip:

The "Comments" associated with the OLIS LOINC code in the "Map Local Result Codes to OLIS Result Codes" screen are not comments from the OLIS Test Results Nomenclature table.

Usage Tip:

Upon accessing the mapped test result codes, the OLIS test result codes are sorted by the LOINC code.
  - ➤ **Option:** To display the OLIS test result codes alphabetically based upon the LOINC Component name, select Records then Apply Filter/Sort.

Usage Tip:

When mapping local test request or test result codes to the OLIS Nomenclature, the Search function treats a blank category or sub-category as a valid entry.
  - ➤ **Solution:** When searching, either select all categories or include blank entries.