**Clinisys
Application Interfacing**

Patient Population Export Specification

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1   Scope

1.1   Interface Overview
The patient population export is designed to extract data from the lab or archive areas and format that data to an external system in either real-time HL7 messages or to a file. The interface is based on a live interface formatter and requires SAM if the pre-existing interface is using SAM. There are no changes to the format of the pre-existing result interface format. The site is responsible for running small batches of historical loads so that there is no impact to the overall space that is used to extract the load.
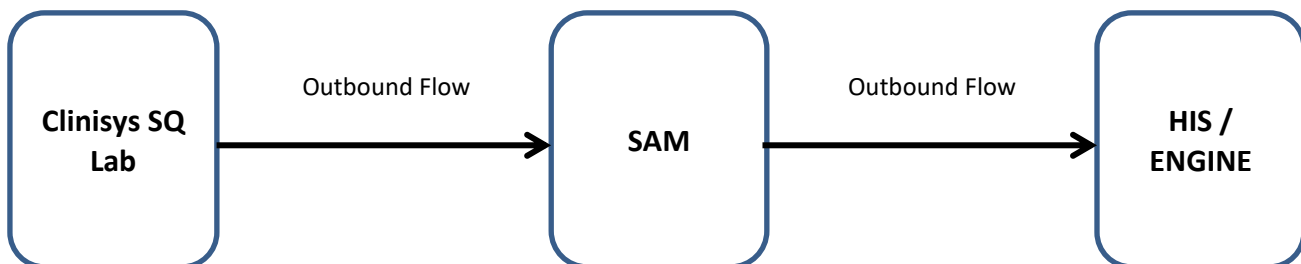
1.2   HL7 Version Conformance
This interface is based on HL7 version 2.3 or HL7 version 2.5.1.

1.3   Data Flow and Communications
This interface's communication is based on TCP/IP through a VPN tunnel. The use of Sunquest Application Manager (SAM) is not required unless the interface you will use for the historical format uses SAM already.

Note: this interface will be tested on the Clinisys Test area. Test patient data can be sent from test. The client assumes the responsibility of using production area data for testing purposes.

1.4   Specifications and Signoff Processes
Completion of these specifications is a joint responsibility of two parties: Clinisys and you as the customer. While Clinisys assists with completing the document, you as the customer have the primary responsibility for identifying the requirements for this interface. At the conclusion of the specifications process, you will be required to sign off that the specifications are complete and accurate. The completed specifications are recorded with your project record and become the work instruction for the installation of your new interface. Change of Scope will incur additional fees.

2 Project Identifiers and Contacts

Clinisys Enabling healthier communities **Lab Historical Load**	***HL7 Application Interface Specification Document*** Effective January 2014 **INSTRUCTIONS** a. Enter all requested information. b. To navigate from text box to text box ( )use F11 on your keyboard. Use Shift F11 to go back to a missed text box.

SITE NAME		**SITE CODE:**		**SO#:**	
PROJECT:	Lab Historical Load Interface				

VENDOR INFORMATION :		**INTERFACE ENGINE INFORMATION:**	
Vendor Name:		Engine Name:	
Contact Name:		Contact Name:	
E-mail:		E-mail:	
Phone:		Phone:	
LAB CONTACT:		**IS CONTACT:**	
System Manager:		Name:	
E-mail:		E-mail:	
Phone:		Phone:	
CLINISYS PROJECT MANAGER:		**CLINISYS INTERFACE ANALYST:**	
Name:		Name:	
E-mail:		E-mail:	
Phone:		Phone:	

3   Site-Specific Configuration Questions

After carefully reviewing this entire document, please answer the questions below and send a completed copy to your Clinisys Interface Analyst. Since these questions relate directly to the specific set up of your interface, answers to these questions are required before the interface installation can begin. If you need more information for a question, please contact your interface analyst.

To complete this section, provide responses to each item.
- Radio Buttons: Where only one choice is available, click the radio button that applies. A choice of "Unknown" is available to allow you to work through the form. At the time this document is submitted as complete no items may be marked as "Unknown".
- Text Boxes: Use the text boxes to fill in information. To fill in a text box, click the box once and start typing the response. Alternatively, double-click on the box and a data entry dialog will open for you to fill in the response as the "default text".
- Check Boxes: Click to toggle the check box on or off.

3.1   CPU Hardware

3.1.1   What CPU configuration is being used at your site?

☐ Single CPU

☐ Dual CPU (A-B Link)

☐ High Availability

If HA, what is the virtual IP address of the LAB CPU?   _____

What is the physical IP address of the main lab CPU?   _____

If the address is NAT'd, what is the NAT'd address of the main lab CPU? _____   ☐ N/A

What is the physical IP address of the secondary lab CPU?   _____   ☐ N/A

If the address is NAT'd, what is the NAT'd address of the secondary lab CPU? _____   ☐ N/A

3.1.2   Does your site use IP Alias for your SAM servers?

☐ N/A (not using IP Alias   ☐ Yes

If Yes, what is the IP Alias address of the Test Area?   _____

If the address is NAT'd, what is the NAT'd address of the test area? _____   ☐ N/A

If Yes, what is the IP Alias address of the Live Area?   _____

What is the physical IP address of the Primary SAM? _____

If the address is NAT'd, what is the NAT'd address of the Primary SAM? _____ ☐ N/A

What is the physical IP address of the Secondary SAM? _____ ☐ N/A

If the address is NAT'd, what is the NAT'd address of the Secondary SAM? _____ ☐ N/A

*__Notes:__ If HA or IP Alias are enabled, all virtual and physical IP's will need to be allowed through firewalls or VPNs as bi-directional connections for proper communication handling. If Alias is enabled the vendor will connect to the virtual address.

Prior to go live, the site's network engineer and the vendor's network engineer will update the VPN/Firewall rules to define the Live alias IP address of the SAM. This is required to be completed to ensure a successful connection between the SAM interface and the Vendor.
- Any outbound Network Address Translations (NAT'ing) will need to be provided to Clinisys prior to the go live to ensure the interfaces successfully connect to the correct IP address.
- Any inbound Network Address Translations (NAT'ing) will need to be provided to the vendor prior to the go live.

**Note on Vendor Connectivity:
- If IP alias for the SAM server is defined, the vendor should connect to the alias.
- If not using IP alias on SAM, the vendor should connect to the physical IP address of the primary SAM, but would then need to connect to the physical IP address of the secondary SAM if the site is in failover.

Responsible Party for Firewall Connections
Name: _____
Phone Number: _____
Title: _____
Email: _____

3.2   Software Versions and Overlay Information
The LAB, AI and SAM versions in <u>both</u> TEST and LIVE must be in sync prior to moving the interface live.

NOTE: THIS INTERFACE REQUIRES:

A live Clinisys Result Interface

If Lab Archive data will be sent, v 5.2+ is required

HL7 version 2.5.1 minimum requirements:
SQ Lab 7.0,   AI 3.3,   SAM 4.2,   IX 1.7

Note: Any of these Clinisys SQ Laboratory versions are acceptable for v 2.5.1 interfaces:

- **7.0.1003 Patch 5 or later**
- **7.1.0032 R1 Patch 7 or later**
- **7.1.1001 Patch 2 or later**
- **7.2 or later**

3.2.1   On which Clinisys SQ Laboratory software version will this interface be installed?
Version: _____

3.2.2   On which AI software version will this interface be installed?
Version: _____

3.2.3   If using SAM what is the name of the SAM test area? _____

3.2.4   The interface will be shipped to the lab test area named _____ on the _____ CPU.

Note: If you are going to use a meaningful use version 2.5.1 interface for the historical feed, you must have all patches for Lab, AI and IX in production before sending data from the historical interface that will use that format.

3.3   TCP/IP Communications and Ports

3.3.1   What is the IP address of the HIS/Interface Engine? _____

3.3.2   What port number should be used for the result historical load interface in the TEST area? _____

3.3.3   What port number should be used for the result historical load interface in the LIVE area? _____

3.4 Multiple Facilities

3.4.1 Will transactions for more than one hospital go through these interfaces?

☐ Yes   ☐ No

If yes, list all of the HIDs that will be using this interface:

HID Number	HID Mnemonic	Hospital Name

3.4.2 Will the value sent for the HID need to be translated by the interface to a different value? (Select One)

☐ No

☐ Yes

     Please specify: _____

3.5 Transaction Framing

3.5.1 The communication envelope and the format of the transactions sent by the result historical load interface will be the same as your current (active in production) results interface.

Which current results interface should be used? _____

** Note: There must be a current HL7 results interface on site in order for Clinisys to install the result historical load interface. The historical load interface will use the current results interface to format the transactions for the result historical load interface. HMA will be copied from the current interface to the result historic load interface. After installation of the result historic load interface, if changes are made in HMA to the current interface, those same changes need to be applied in HMA for the result historic load interface. **

3.6 Outbound Messages

3.6.1 Of the lab modules which exist on the current results interface, which results should be sent across the result historical load interface?

☐ General Lab   ☐ Blood Bank   ☐ Microbiology

** Note: No filtering is done on Lab or SAM with respect to patient type, location, HID, etc. If historical CoPath results are required, please contact your Sales Account Manager for a CoPath Data export quote **

3.6.2   Will archived data need to be sent across the result historical load interface?

☐ **Yes**   ☐ **No**

3.6.2.1   If Yes*, what is the name of the archive area? _____

* Note: Inquiry only areas may be used for historical data. The value of the HID within that inquiry area may differ from the lab HID. It may be necessary to secure custom coding to cross walk this, or use your interface engine to convert the HID to the proper entry

A utility will be run on the system to show the collection dates available within the archive area.

Archive area collection dates _____

3.6.2.2   If you have purchased an extended maintenance license, how long will the historical interface be used in the live area? _____ **(if you are using the standard 6 months, mark this as N/A)**

** Note: The interface will be available for 6 months after it is installed in your production area. After 6 months the interface will automatically be disabled. If the interface is needed for a longer period of time, please contact your Sales Account Manager for a quote. **

4   Function Overviews

Function HRPLD Overview

Define Date Range

```
RESULT LOAD OPTIONS

 1. Define Date Range
 2. Start/Stop Extract
 3. Start/Stop Interface

Select Option  : 1

USER OPTIONS FOR RESULT LOAD
---------------------------

Please Enter Site Code <site>  :

Please Enter Interface Number  :

Please Enter Job Number  :

START DATE <T>:

END DATE:
```

❖   Enter the Site Code or carriage return to accept the default

- ❖ Enter the result historical load interface number
- ❖ Enter the interface formatting job number, which is 2
- ❖ Enter the starting date of the requested collect date range (i.e. T-30 will start the extract at 30 days before today)
- ❖ Enter the ending date of the requested collect date range

Stop/Start Extract

```
RESULT LOAD OPTIONS

 1. Define Date Range
 2. Start/Stop Extract
 3. Start/Stop Interface

Select Option  :  2

USER OPTIONS FOR RESULT LOAD
----------------------------
```
```
Please Enter Site Code <site>  :
   Clinisys Information Systems

Please Enter Interface Number  :

Please Enter Job Number  :

Extract is currently NOT RUNNING, Start (S):
```

- ❖ Enter the Site Code or carriage return to accept the default
- ❖ Enter the result historical load interface number
- ❖ Enter the interface formatting job number, which is 2 (if 1 is entered an error will generate)
- ❖ A message will display indicating the state the extract process is in

Three stages:
1) Running: The extract was started and has not completed yet
2) Suspended: The extract was interrupted while it was running and can be restarted where it left off
3) Completed: The extract finished for the requested date range

Notes:
If the extract is running, it can be interrupted or terminated
If the extract is suspended, it can be started or terminated
If the extract is completed, it can be started

Start/Stop Result Interface (formatter job)

```
RESULT LOAD OPTIONS

 1. Define Date Range
```

```
 2. Start/Stop Extract
 3. Start/Stop Interface


Select Option  : 3
```

Note:
If option 3 is selected to start or stop the interface, the prompts will be the regular prompts seen from function HSTP. The jobs for the historical load results interface can be stopped and started using this function (HRPLD) or the normal STOP/START function, HSTP.

4.1.1   Monitor Interface

Function UTL, Option 2 can be used to monitor when the historical load interface extract operation starts and completes.

```
HIGH PRIORITY MESSAGE LOG FOR


 DATE    TIME    TERM    MESSAGE
05/06/14  09:07:15 NLA0:     Result Load Completed.
05/06/14  09:07:14 NLA0:     Result Load Extract Started for
                date range 13881 - 13887.


    Redisplay ? (Y/<N>) :
```

5   User Load instructions for TCP/IP
Functions to use: HRPLD and UTL

1. Go into function HRPLD and select option #1 to define the date range
   Carriage return at the site code prompt
   Enter historical interface #
   Select job #2
   Enter the start date
   Enter the end date
   If everything looks appropriate, then (A)ccept

2. Now go back into function HRPLD, and select option #2, start/stop extract
   Carriage return at the site code prompt
   Enter historical interface #
   Select job #2
   Enter an (S) to start the extract for the date range you selected in the previous step

3. Once again go back into function HRPLD and select option #3, to start/stop the interface
   Enter historical interface #
   Choose all jobs and start the interface

4. You can use function UTL to monitor the progress of the historical load interface
   Function UTL will show when the historical load interface has been started, and when it is finished

6   Signoff Page

Lab Historical Load Signoff Page (with Clinisys logo – *Enabling healthier communities*)	***HL7 Application Interface Specification Document*** **INSTRUCTIONS** a. Enter all requested information. b. To navigate from text box to text box ( ) please use F11 on your keyboard. Use Shift F11 to go back to a missed text box. c. Check the boxes for Declarations A, B, C and E. Check Declaration D if it applies. d. Sign the document. e. Send the completed electronic copy to your Interface Analyst and fax the signed cover page to the analyst.

SITE NAME			SITE CODE:		SO#:	
PROJECT:		Lab Historical Load Interface				

DECLARATION: I / WE DECLARE THAT FOR THE SPECIFICATION FOR THE INTERFACE IDENTIFIED IN THIS DOCUMENT:

☐ A. THE SPECIFICATION IS COMPLETE AND ACCURATE:

The Clinisys Interface Analyst and I have negotiated the Application Interface Specification document. I understand that these specifications will be followed precisely by the Clinisys programmer when developing and installing the interface code. By signing below, I am assuring that the specifications have been completed according to the requirements of the Clinisys SQ Lab system and the other vendor. In addition, I understand that any changes to the interface specification may result in additional fees and may impact the interface schedule.

☐ B.   I / WE AGREE TO TESTING:

I have considered all of the elements of this new interface that will require testing, and will test according to a test plan that meets my organization's policies and workflows.

☐ C.   I / WE WILL ENSURE THAT THE NECESSARY OVERLAY(S) ARE IN-PLACE:

If I have an overlay scheduled, or have an overlay in the test area, I understand that the overlay must be moved to the production area prior to the interface live date. Should my last overlay be older than 6 months, Clinisys will evaluate and determine if an overlay is necessary. If an overlay is needed this interface installation will be put on hold until the overlay is installed in the test area.

☐ D.   THIS INTERFACE REPLACES AN EXISTING INTERFACE:

Be aware that if this interface is replacing an existing customized interface and the same customization is desired on the new interface, it must be negotiated with your interface analyst and additional fees will be charged.

☐ E.   I UNDERSTAND THAT THIS IS A TEMPLATED INTERFACE:

	SIGNATURE OF CLIENT REPRESENTATIVE DATE
	NAME AND TITLE OF CLIENT REPRESENTATIVE

INSTRUCTIONS TO PURCHASERS OF CLINISYS HL7 INTERFACES
DECLARATIONS: Sections A, B, C and E must be selected. Select section D if this interface is replacing an existing customized interface.

SUMMARY: This form must be completed for interfaces between Clinisys products and other electronic systems. The content of this document is the basis from which your interface will be developed. In an effort to provide the most efficient and effective implementation schedule possible, the Application Interfacing Department has developed a list of requirements to help facilitate the process. These requirements were developed as a result of our extensive experience in the clinical information system integration environment and represent items that if changed typically cause delays in the process. **Client adherence to these requirements is crucial to the success of the implementation process, since resources are allocated at specified milestones in the process, and any deviation from the associated schedule will jeopardize the resource allocation.**

ELECTRONIC SUBMISSION: Emailed submissions of this completed form are preferred. Please contact your Project Manager or Interface Analyst if you need to arrange for hard copy submission.

PROCESS DELAYS: Should there be delays related to the availability of hardware, software, personnel, or inactivity consistent with the milestone schedule, **Clinisys reserves the right to reschedule the project for a later date**. If the project is idle for a period of three weeks, the project may be placed on hold and rescheduling made necessary. Depending on the delay, a new overlay may be needed before the project can resume. Rescheduling will be subject to resource availability.

DECLARATION A: Complete and Accurate
The specification is designed to be detail oriented and should encompass all expected HL7 transaction types. A copy of this document, completed to the best of your ability, must be returned to your assigned Clinisys Interface Analyst in order to complete the specification negotiation process. In order to complete the specs, you will need to consult with the receiving system vendor and/or Interface Engine representative. In order to assist them, copies of this document may be distributed as needed. Please review this document and answer as many questions as possible. After your initial review, your Interface Analyst will work with you to finalize this document. Accurate completion of this document is essential as it will be used to program your interface(s).

Data passing through one interface may affect other existing interfaces or planned additional interfaces. By agreeing to this specification you are confirming that you have considered these interactions and that this interface meets your requirements. Please consider the following examples provided for illustration only.

- Please note that if we will be implementing ADT and OE interfaces, we expect that both the ADT and OE transactions will be sent on one logical connection. Be aware that if you choose to send ADT and OE to separate ports, Clinisys has no control over orders processing before ADT. Therefore, if orders arrive before ADT, the orders will not file and an error message will be produced. Please indicate if the orders interface should be added to your current ADT or whether it should stand alone (see warning above).
- If installing only an orders (inbound) interface, it may affect your existing results (outbound) interface. For example, the HIS order number format may need to be changed on the result interface to accommodate the order number of the new order interface. It is the responsibility of the client to research the possible impact of a new orders interface on the existing results interface. Modifications to the existing results interface may result in additional fees.

- Installing only a results (outbound) interface may affect your current order (inbound) interface. For example, lab generated orders may be sent on the new result interface and order number update may need to be activated or deactivated on the current order interface.
- It is the responsibility of the client to research the possible impact of a new results interface on the existing orders interface. Modifications to the existing orders interface may result in additional fees.

DECLARATION B: Testing
All vendor systems and associated software/hardware must be installed and tested **before communication testing with the Clinisys system can begin**.

Dedicated resources must be available to assist with the testing of all hardware and software components associated with the interface installation. These resources should be experienced in the domain relative to their assignment, and have the authorization to integrate system enhancements if necessary. In addition, these resources should also be defined prior to the beginning of the specification negotiation process and will require coverage during absences.

A well-defined test plan must be used to validate the new interface. Clinisys will provide a generic test plan, when available, for the Laboratory Information System (LIS); however, you will need to refine the plan to include site-specific workflow considerations for your organization.

DECLARATION C: Overlays
An overlay must have been installed in the test area within the last six months of the project start date and the overlay needs to be moved live prior to the project. It is the responsibility of the site to arrange to have the overlay scheduled and to coordinate the overlay live date with the interface(s) live date. Please contact software distribution for assistance.

DECLARATION D: Replacement of Customized Software
Select section D if this interface is replacing an existing customized interface. If not replacing an existing interface or if customization is not required then do not select section D.

DECLARATION E: Templated Interface
This is a templated Interface (not custom); no changes can be made unless jointly agreed to by both vendors' development teams.

If additional guidance is needed, please contact your Clinisys application interface analyst.