

TRAINING UPDATE

Lab Location: GEC, SGMC & WOMC
Department: Core

Date Distributed: 3/24/2020
Due Date: 4/24/2020
Implementation: 4/8/2020

DESCRIPTION OF REVISION

Name of procedure:
Data Innovations Instrument Manager SGAH.L49 v11
Description of change(s):
<p>Section 5.F: Changed WAH to WOMC, added combined work lists for UA/Coag and Heme/Coag</p> <p>Section 5.G: Added examples 7 & 8</p> <p>This revised SOP will be implemented April 8, 2020</p>

Document your compliance with this training update by taking the quiz in the MTS system.

Non-Technical SOP

Title	Data Innovations Instrument Manager	
Prepared by	Robert SanLuis	Date: 7/11/2012
Owner	Robert SanLuis	Date: 3/12/2013

Laboratory Approval		
Print Name and Title	Signature	Date
<i>Refer to the electronic signature page for approval and approval dates.</i>		
Local Issue Date:		Local Effective Date:

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1. PURPOSE

To describe the processes associated with the use of Instrument Manager (IM) to manage specimens and result release to into the Sunquest (SQ) Laboratory system.

2. SCOPE

Instrument Manager functions to provide connectivity between instrumentation and the laboratory information system (LIS). IM provides the ability to review multiple instruments and work areas at one time. IM utilizes rules-based decision processing via graphical interface to release results without technical intervention which provides technical staff additional time to attend to the true exceptions.

3. RESPONSIBILITY

Knowledge of IM is the responsibility of all laboratory technical staff.

4. DEFINITIONS

Instrument Manager (IM) – computer application to manage laboratory processes, instrument interfaces, and deploy rules-based decision processing via graphical interface.




5. PROCEDURE

A. Log on to Instrument Manager

If the program is not open double click on the icon on the desktop.
(Note: A popup window may state unknown publisher. Click Run.)

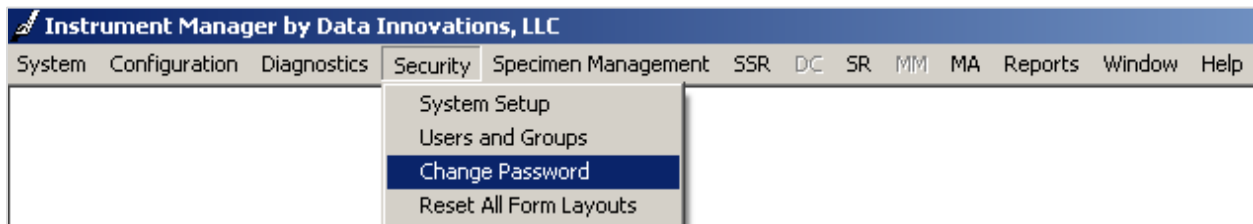


First time users will enter their Quest employee ID number then click . You will then be asked to establish a password. It is recommended to keep SunQuest and Instrument Manager passwords in sync.

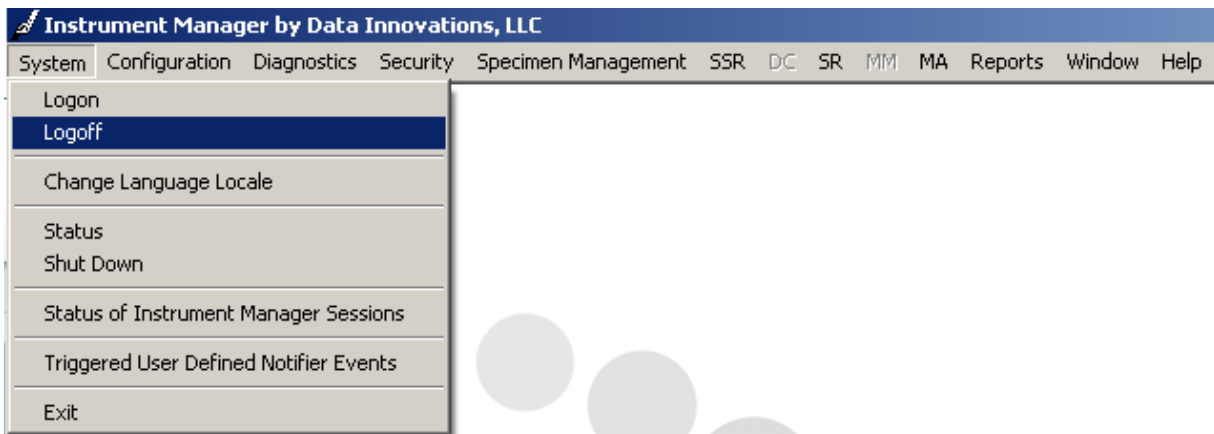
Once your password is established you will Logon with the above established user name and password to gain access to the system.

B. Security

You are responsible for results release under your code. See below to change your password on demand.



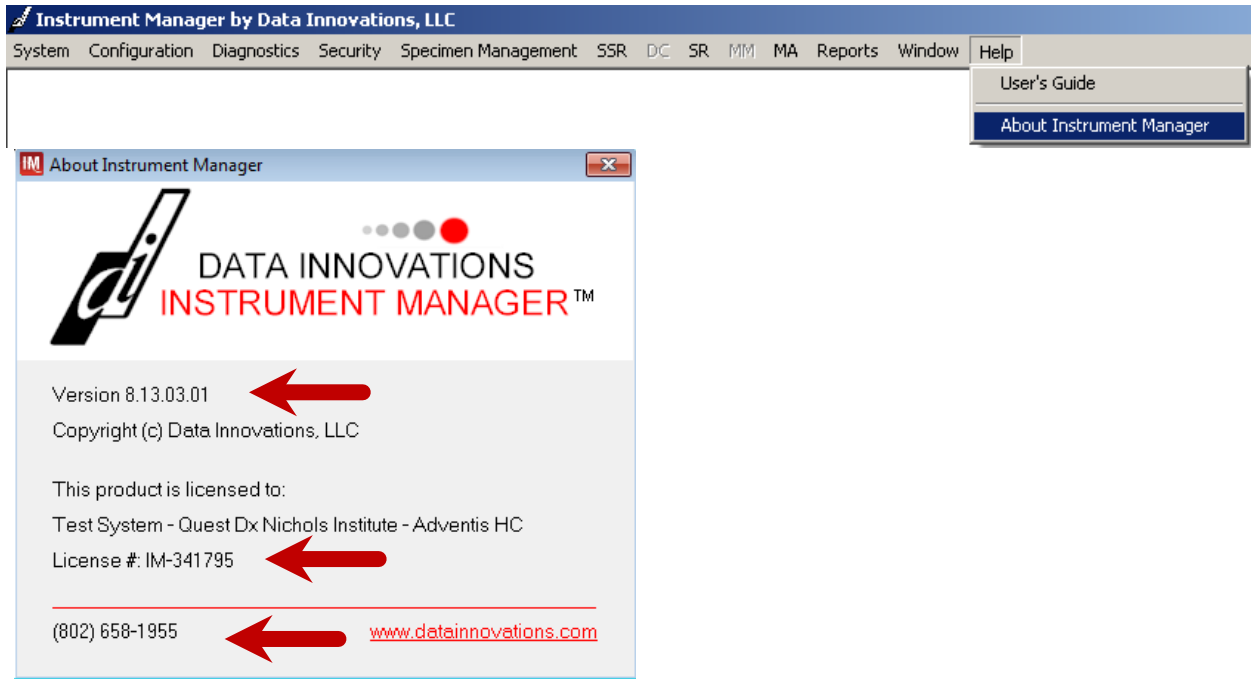
To maintain system security logoff under system as demonstrated.



Note: Auto-logoff: will automatically logoff users from Instrument Manager after a defined period of inactivity. The timer is currently set to 60 minutes

C. Help

The About Instrument Manager under the help menu will provide required information when calling customer support.



D. System menu



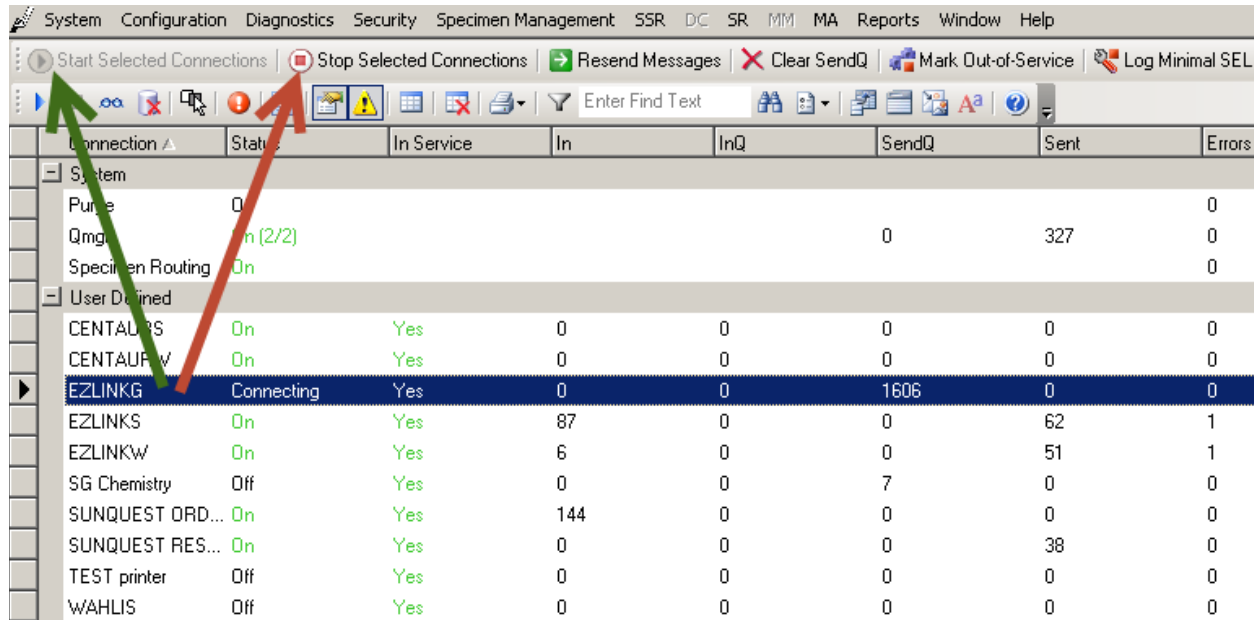
System Status

The status of interfaces should be on all the time for the following:

Qmgr	EZLINKS	SUNQUEST ORDERS
Purge	EZLINKW	SUNQUEST RESULTS
Specimen Routing	EXPAND-EXPG1	GEC HEME Counter
Archive	EXPAND-EXPG2	SGAH HEME Counter 1
AUWI-SGMC Orders	STAGO-GS1	SGAH HEME Counter 2
AUWI-SGMC Results	STAGO-SS1	WAH HEME Counter 1

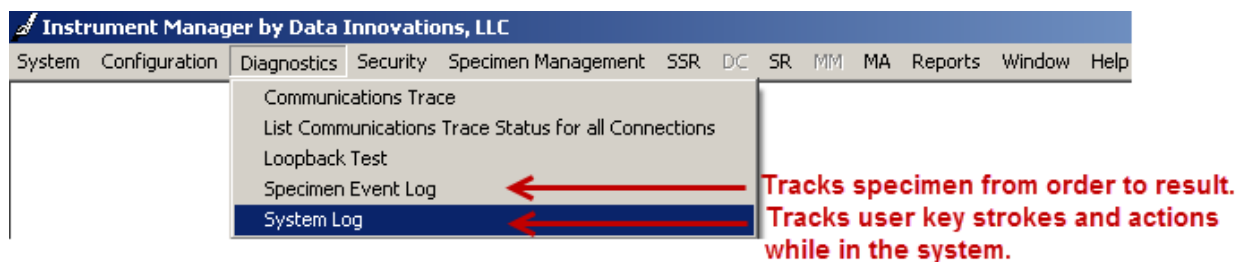
AUWI-WOMC Orders	STAGO-SS2	WAH HEME Counter 2
AUWI-WOMC Results	STAGO-WS1	SYSMEX-GEC
CENTAURS	STAGO-WS2	SYSMEX-SG
CENTAURW		SYSMEX-WAH

Note the below screen shot demonstrates EZLINKG at Germantown is not working. It is trying to connect unsuccessfully. You can attempt to repair the connection - click on the connection then select **STOP**/once stopped then **START** selected connection.

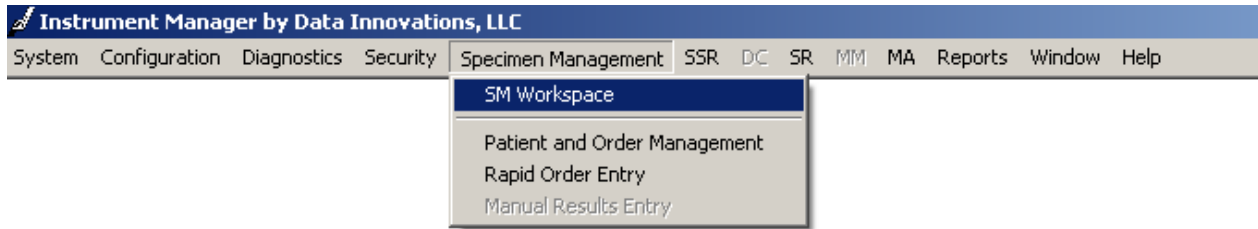


E. Diagnostics menu

Troubleshooting – staff will use this infrequently with IT support direction. Arrows below denote key logs utilized to capture all actions within the system.



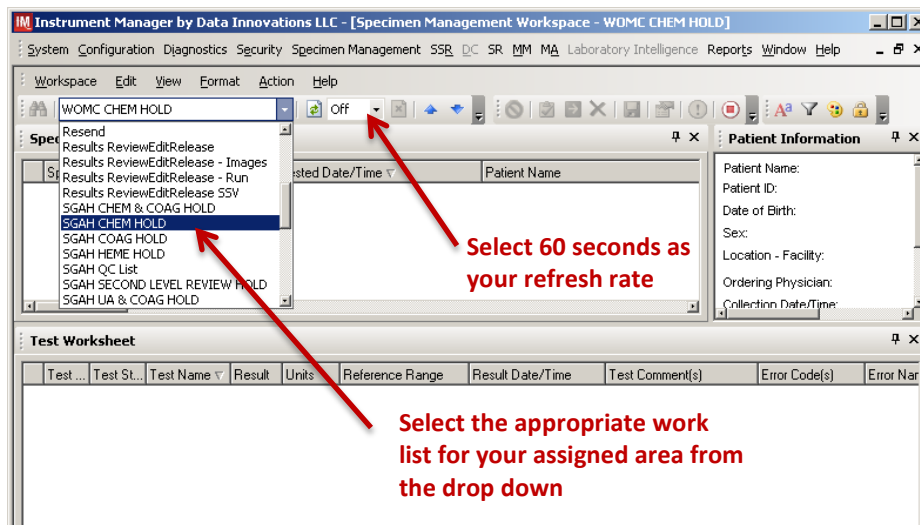
F. Specimen Management Menu



SM Workspace is the default window for technical staff. This is where specimen results are reviewed, rejected, and/or released.

- Click on SM Workspace – Your default screen will appear. The first time you log in it is blank because you have not selected a default worklist.
- Select your default site specific (SGAH, WOMC or GEC) worklist (CHEM HOLD , COAG HOLD, or CHEM & COAG HOLD)
- Set a 60 second screen refresh rate.

See Example Below:



Below you will find key areas of interest along with a description.



The screenshot displays the 'Instrument Manager by Data Innovations, LLC' interface. The main window is titled 'Specimen Management Workspace - SGAH CHEM HOLD (Modified)'. It features a menu bar (Workspace, Edit, View, Format, Action, Help) and a toolbar with various icons. The interface is divided into several panes:

- Specimen Worksheet #3:** A table listing specimen details.

Specimen ID	Specimen Completion Status	Patient Name	Priority	Total Number ...	Collection Date/Time
#6 010000647	Tests Held	TESTSG,MARIE	R	8	7/8/2012 4:03:00 PM
010000648	Tests Held	TESTSG,MARIE	R	7	7/8/2012 4:03:00 PM
010000646	Tests Held	TESTSG,MARIE	R	7	7/8/2012 4:02:00 PM
010000642	Tests Held	TESTSG,MARIE	R	4	7/8/2012 3:00:00 PM
010000638	Tests Held	TESTSG,MARIE	R	9	7/8/2012 2:49:00 PM
010000637	Tests Held	TESTSG,MARIE	R	11	7/8/2012 2:48:00 PM
- Patient Information #4:** A panel showing patient details for TESTSG,MARIE, including Patient ID (TEST-200), Date of Birth (1/1/2000), Sex (F), Location (TEST), and Specimen Type.
- Test Worksheet #5:** A table showing test results.

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Previous...
#7 VS2	Held f...	CL	Chloride	105.0	98 - 107	7/8/2012 4:34:37 PM	<input type="checkbox"/>		HOLD	Other Tests Held	108.0	101.0	
VS2	Held f...	ECO2	Total CO2	33.0	21 - 32	7/8/2012 4:37:19 PM	<input type="checkbox"/>		HOLD	Other Tests Held	27.0	18.0	20.0
VS2	Held f...	K	Potassium	6.5	3.5 - 5.1	7/8/2012 4:34:37 PM	<input type="checkbox"/>	CBACK; #8	cH	cH	4.3	4.3	3.9
VS2	Held f...	NA	Sodium	150.0	136 - 145	7/8/2012 4:34:37 PM	<input type="checkbox"/>		HOLD	Other Tests Held	145.0	135.0	
VS2	Held f...	H	H	1		7/8/2012 4:35:45 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Held f...	I	I	2		7/8/2012 4:35:45 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Held f...	L	L	1		7/8/2012 4:35:45 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Held f...	AGAP	AGAP	19		7/8/2012 4:26:08 PM	<input type="checkbox"/>		HOLD	Other Tests Held	16	20	22

ITEM	DESCRIPTION	FUNCTION																																																
#1	Work List	<table border="1"> <thead> <tr> <th>Site</th> <th>Chemistry</th> <th>Coagulation</th> <th>Combined</th> <th>Quality Control</th> </tr> </thead> <tbody> <tr> <td>GEC</td> <td>GEC CHEM HOLD</td> <td>GEC COAG HOLD</td> <td>GEC CHEM & COAG HOLD</td> <td>GEC QC LIST</td> </tr> <tr> <td>SGMC</td> <td>SGAH CHEM HOLD</td> <td>SGAH COAG HOLD</td> <td>SGAH CHEM & COAG HOLD</td> <td>SGAH QC LIST</td> </tr> <tr> <td>WOMC</td> <td>WOMC CHEM HOLD</td> <td>WOMC COAG HOLD</td> <td>WOMC CHEM & COAG HOLD</td> <td>WOMC QC LIST</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Site</th> <th>Urinalysis</th> <th>Combined</th> <th>Quality Control</th> </tr> </thead> <tbody> <tr> <td>SGMC</td> <td>SGAH URINALYSIS HOLD</td> <td>SGAH UA and COAG HOLD</td> <td>SGAH QC LIST</td> </tr> <tr> <td>WOMC</td> <td>WOMC RINALYSIS HOLD</td> <td>WOMC UA and COAG HOLD</td> <td>WOMC QC LIST</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Site</th> <th>Hematology</th> <th>Combined</th> <th>Quality Control</th> </tr> </thead> <tbody> <tr> <td>GEC</td> <td>GEC HEME HOLD</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>SGMC</td> <td>SG HEME HOLD</td> <td>SGAH HEME and COAG HOLD</td> <td>N/A</td> </tr> <tr> <td>WAH</td> <td>WOMC HEME HOLD</td> <td>WOMC HEME and COAG HOLD</td> <td>N/A</td> </tr> </tbody> </table>	Site	Chemistry	Coagulation	Combined	Quality Control	GEC	GEC CHEM HOLD	GEC COAG HOLD	GEC CHEM & COAG HOLD	GEC QC LIST	SGMC	SGAH CHEM HOLD	SGAH COAG HOLD	SGAH CHEM & COAG HOLD	SGAH QC LIST	WOMC	WOMC CHEM HOLD	WOMC COAG HOLD	WOMC CHEM & COAG HOLD	WOMC QC LIST	Site	Urinalysis	Combined	Quality Control	SGMC	SGAH URINALYSIS HOLD	SGAH UA and COAG HOLD	SGAH QC LIST	WOMC	WOMC RINALYSIS HOLD	WOMC UA and COAG HOLD	WOMC QC LIST	Site	Hematology	Combined	Quality Control	GEC	GEC HEME HOLD	N/A	N/A	SGMC	SG HEME HOLD	SGAH HEME and COAG HOLD	N/A	WAH	WOMC HEME HOLD	WOMC HEME and COAG HOLD	N/A
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ITEM	DESCRIPTION	FUNCTION
#2	Screen Refresh Rate	The Refresh Rate is how frequently the computer looks for new data. Selections are OFF, 30s, 60s, 120s, and 300s. The Refresh Rate should generally be set to 60s. If you have a particularly complex result to review you can toggle the setting to OFF. If the setting is OFF the screen will not refresh automatically which could affect turnaround time negatively.
#3	Specimen Worksheet	List of specimens to review before result release.
#4	Patient Information	This panel displays patient demographic information on the selected patient.
#5	Test Worksheet	Displays the results of the selected patient.
#6	Selected Patient	The arrow designates the patient being evaluated and acted on.
#7	Selected Test Result	The arrow indicates the current test being evaluated. The test is CL run on VS2 with result of 105.0 and held of the critical high Potassium.
#8	Critical	The critical result is flagged with cH and CBACK-; appends for documentation of the call.
#9	Save Changes	Save changes after entering test comments so they will not be lost. If the screen refreshes you will be asked 'do you want to save changes'. Responding <i>yes</i> to the save request will save your work but not release it.
#10	Error Code	The Error Code or flag is what holds a sample for review. The name of the error is listed in the adjacent cell. Additional information may also be provided to assist in evaluating the specimen results.
#11	Previous Results	If available, previous results will be listed. Please note that delta flags are triggered at certain intervals thus the difference may exceed the delta range but the time for the flag to trigger has elapsed.
#12	Reject Result	The Red  rejects results you do not want to release. You can select individual results to reject or groups of results by depressing the Shift or Ctrl key in combination with the mouse. Always evaluate and reject before you release.
#13	Release Results	The clipboard with the check mark  allows you to release results to Sunquest. SQ requires results to be delivered in neat packets. Therefore, you must evaluate results and reject everything except that which you want sent to the patients chart. Do not send duplicate results - SQ gets confused.
#14	Filter	The filter will allow you to add or remove a filter from the current Work List (#1 Above) you are viewing. For example, the default Work List only shows "Tests Held" for review. If you click on the filter you can remove a filter and see both held for review and complete.
#15	Send to Host	Selected results may be resent to the host Sunquest. This is most effective if you have a single result that did not cross for some reason; such as, using a comment without appropriate format or mistype of a canned comment.

G. Result Evaluation Process

Note: Troponin critical values vary based on whether the result is an initial test or a subsequent one. Subsequent critical values are determined by delta criteria rules. Refer to Addendum 1 for more information and examples.

Example 1

1. Review results for errors, deltas, criticals, and HIL flags.
2. Only issue noted is a critical K of 6.5. Result called and read back (CBACK-;) by Rob at 16:40.

The screenshot shows the 'Specimen Worksheet' and 'Test Worksheet' for patient TESTSG, MARIE. The Specimen Worksheet lists three tests held on 7/8/2012. The Test Worksheet shows results for various tests, including Potassium (K) with a result of 6.5 and a comment 'CBACK-, Rob at 16:40'. Other tests are marked as 'Held' or 'Other Tests Held'.

Specimen ID	Specimen Completion Status	Patient Name	Priority	Total Number ...	Collection Date/Time
010000647	Tests Held	TESTSG, MARIE	R	8	7/8/2012 4:03:00 PM
010000648	Tests Held	TESTSG, MARIE	R	7	7/8/2012 4:03:00 PM
010000646	Tests Held	TESTSG, MARIE	R	7	7/8/2012 4:02:00 PM

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Previous...
VS2	Held f...	CL	Chloride	105.0	98 - 107	7/8/2012 4:34:37 PM	<input type="checkbox"/>		HOLD	Other Tests Held	108.0	101.0	
VS2	Held f...	ECO2	Total CO2	33.0	21 - 32	7/8/2012 4:37:19 PM	<input type="checkbox"/>		HOLD	Other Tests Held	27.0	18.0	20.0
VS2	Held f...	K	Potassium	6.5	3.5 - 5.1	7/8/2012 4:34:37 PM	<input type="checkbox"/>	CBACK-, Rob at 16:40	cH	cH	4.3	4.3	3.9
VS2	Held f...	NA	Sodium	150.0	136 - 145	7/8/2012 4:34:37 PM	<input type="checkbox"/>		HOLD	Other Tests Held	145.0	135.0	
VS2	Held f...	H	H	1		7/8/2012 4:35:45 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Held f...	I	I	2		7/8/2012 4:35:45 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Held f...	L	L	1		7/8/2012 4:35:45 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Held f...	AGAP	AGAP	19		7/8/2012 4:26:08 PM	<input type="checkbox"/>		HOLD	Other Tests Held	16	20	22

Example 2

1. Review results for errors, deltas, criticals, and HIL flags.
2. Error noted (E172) no sample detected.
3. Since only LA is ordered check the sample and order rerun.
4. Reject the bad results.

The screenshot shows the 'Specimen Worksheet' and 'Test Worksheet' for patient TESTSG, MARIE. The Specimen Worksheet lists one test held on 7/8/2012. The Test Worksheet shows results for Lactic Acid (LA) with an error code E172 and the message 'No Sample'. Other tests are marked as 'Held' or 'No Sample'.

Specimen ID	Specimen Completion Status	Patient Name	Priority	Total Number ...	Collection Date/Time
010000639	Tests Held	TESTSG, MARIE	R	4	7/8/2012 2:00:00 PM

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Previous...
VS1	Held f...	LA	Lactic Acid			7/8/2012 3:02:24 PM	<input type="checkbox"/>		E172	No Sample	0.4		
VS1	Held f...	L	L			7/8/2012 3:02:24 PM	<input type="checkbox"/>		E172	No Sample	1	1	1
VS1	Held f...	I	I			7/8/2012 3:02:24 PM	<input type="checkbox"/>		E172	No Sample	1	1	1
VS1	Held f...	H	H			7/8/2012 3:02:24 PM	<input type="checkbox"/>		E172	No Sample	1	1	1

Example 3

On evaluation of the below results the entire result set was rejected.

Note: Rejecting a result in IM does **NOT** cancel the test in SQ. Test cancellation is a separate process in SQ requiring specific documentation per applicable procedure.

Specimen Worksheet

Specimen ID	Specimen ...	Patient Name	Priority	Total...	Collection Date/Time	Specimen Dilution	Posi
010000649	Complete	BBBSUNQUEST,VISTA WOM...	R	17	7/8/2012 6:00:00 PM	1	

Patient Information

Patient Name: BBBSUNQUEST,VISTA WOMAN
 Patient ID: 31000161
 Date of Birth: 6/18/1982
 Sex: F
 Location - Facility: SLAB

Test Worksheet

This is an example of a rejected result. The status in IM is complete but note no results were released to SQ. Complete here indicates resolved in IM.

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Prev...
VS2	Reject...	TP	Total Prot...	5.5	6.4 - 8.2	7/8/2012 9:06:03 PM	<input type="checkbox"/>		HOLD	Other Tests Held	7.2	8.5	7.4
VS2	Reject...	TP	Total Prot...	5.3	6.4 - 8.2	7/8/2012 9:16:08 PM	<input type="checkbox"/>		HOLD	Other Tests Held	7.2	8.5	7.4
VS2	Reject...	TBIL	Bilirubin, ...	0.40	0 - 1	7/8/2012 9:05:56 PM	<input type="checkbox"/>		HOLD	Other Tests Held	0.70	0.30	0.30
VS2	Reject...	TBIL	Bilirubin, ...	0.40	0 - 1	7/8/2012 9:16:22 PM	<input type="checkbox"/>		HOLD	Other Tests Held	0.70	0.30	0.30
VS2	Reject...	NA	Sodium			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	130.0	140.0	142.0
VS2	Reject...	NA	Sodium			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	130.0	140.0	142.0
VS2	Reject...	NA	Sodium	102.0	136 - 145	7/8/2012 8:57:46 PM	<input checked="" type="checkbox"/>	CBACK;	cL,DELTA,J...	cL,DELTA,Possible IV Contami...	130.0	140.0	142.0
VS2	Reject...	L	L	4		7/8/2012 8:58:12 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Reject...	K	Potassium			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	HLK	HLK	HLK
VS2	Reject...	K	Potassium			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	HLK	HLK	HLK
VS2	Reject...	K	Potassium	HLK	3.5 - 5.1	7/8/2012 8:57:46 PM	<input checked="" type="checkbox"/>		HEMOLYZED	HEMOLYZED	HLK	HLK	HLK
VS2	Reject...	I	I	4		7/8/2012 8:58:12 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Reject...	H	H	4		7/8/2012 8:58:12 PM	<input type="checkbox"/>		HEMOLYZED	HEMOLYZED	4	4	4
VS2	Reject...	GLUC	Glucose	86	74 - 106	7/8/2012 9:01:30 PM	<input type="checkbox"/>		HOLD	Other Tests Held	86	205	50
VS2	Reject...	GLUC	Glucose			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	86	205	50
VS2	Reject...	ECO2	Total CO2			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	16.0	20.0	23.0
VS2	Reject...	ECO2	Total CO2	11.0	21 - 32	7/8/2012 9:01:19 PM	<input type="checkbox"/>		HOLD	Other Tests Held	16.0	20.0	23.0
VS2	Reject...	CREA	Creatinine			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample	2.0	1.1	1.3
VS2	Reject...	CREA	Creatinine	0.9	0.6 - 1.3	7/8/2012 9:01:04 PM	<input type="checkbox"/>		HOLD	Other Tests Held	2.0	1.1	1.3
VS2	Reject...	CL	Chloride			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample		102.0	108.0
VS2	Reject...	CL	Chloride			7/8/2012 9:05:13 PM	<input type="checkbox"/>		E172	No Sample		102.0	108.0
VS2	Reject...	CL	Chloride	70.0	98 - 107	7/8/2012 8:57:46 PM	<input checked="" type="checkbox"/>	CBACK;	cL,DELTA,J...	cL,DELTA,Possible IV Contami...	102.0		108.0

Note: For a calculation to work all components of the calculation must be present. Review results for 'Unable to Calculate' errors. To get the calculation to fire rerun all components required for the calculation.

Example 4

Comment format is critical to properly file the result in SQ.

English Text Codes are acceptable and the preferred method for result comments.

Note-1: The format is slightly different in that the (-) is appended by SQ. Review the format utilized in the screen captures below.

Note-2: Free text comment must be preceded by (;). Remember the (-) is already appended.

English Text: HIR and REP

Specimen Worksheet

Specimen ID	Specimen ...	Patient Name	Priority	Total ...	Collection Date/Time
040003454	Complete	BBBSUNQUEST,VISTA BABY	R	15	7/4/2012 3:00:00 PM

Patient Information

Patient Name: BBBSUNQUEST,VISTA BABY
 Patient ID: 31000160
 Date of Birth: 6/3/2012
 Sex: F

Test Worksheet

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)
VS2	Relea...	TBILN	Bilirubin, ...	10.20	0 - 1	7/8/2012 2:43:30 PM	<input type="checkbox"/>		DELTA	DELTA
VS2	Relea...	NA	Sodium	149.0	136 - 145	7/8/2012 2:34:44 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	L	L	1		7/8/2012 2:35:24 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	K	Potassium	4.7	3.5 - 5.1	7/8/2012 2:34:44 PM	<input type="checkbox"/>	HIR	HEMOLYZED	HEMOLYZED
VS2	Relea...	IBIL	Calc Indir...	2		7/8/2012 2:32:21 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	I	I	4		7/8/2012 2:35:24 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	H	H	3		7/8/2012 2:35:24 PM	<input type="checkbox"/>		HEMOLYZE...	HEMOLYZED,HEMOLYZED
VS2	Relea...	GLUC	Glucose	242	74 - 106	7/8/2012 2:38:34 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	ECO2	Total CO2	17.0	21 - 32	7/8/2012 2:38:24 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	DBILN	Bilirubin, ...	8.19	0 - 0.3	7/8/2012 2:41:09 PM	<input type="checkbox"/>	HIR	HEMOLYZE...	HEMOLYZED,DELTA
VS2	Relea...	CREA	Creatinine	1.0	0.6 - 1.3	7/8/2012 2:38:09 PM	<input type="checkbox"/>	REP	DELTA	DELTA
VS2	Relea...	CL	Chloride	122.0	98 - 107	7/8/2012 2:34:44 PM	<input type="checkbox"/>	REP	DELTA	DELTA
VS2	Relea...	CA	Calcium	8.6	8.5 - 10.1	7/8/2012 2:38:02 PM	<input type="checkbox"/>	REP	DELTA	DELTA
VS2	Relea...	BUN	Urea Nitr...	12.0	7 - 18	7/8/2012 2:38:20 PM	<input type="checkbox"/>		HOLD	Other Tests Held
VS2	Relea...	AGAP	AGAP	15		7/8/2012 2:32:21 PM	<input type="checkbox"/>		HOLD	Other Tests Held

English Text-English Text: CBACK-; SUZIE RN AT 2020-REP

Test Worksheet

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Prev...
VS2	Relea...	TP	Total Prot...	3.2	6.4 - 8.2	7/8/2012 9:12:18 PM	<input type="checkbox"/>		HOLD	Other Tests Held	6.9	7.1	7.1
VS2	Reject...	TP	Total Prot...	3.2	6.4 - 8.2	7/8/2012 9:21:03 PM	<input type="checkbox"/>	Repeat Rejected	HOLD	Other Tests Held	3.2	6.9	7.1
VS2	Reject...	TP	Total Prot...	3.2	6.4 - 8.2	7/8/2012 9:12:18 PM	<input type="checkbox"/>	Repeat Rejected	HOLD	Other Tests Held	6.9	7.1	7.1
VS2	Relea...	L	L	1		7/8/2012 8:50:31 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Relea...	I	I	1		7/8/2012 8:50:31 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	3	1
VS2	Relea...	H	H	1		7/8/2012 8:50:31 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
VS2	Reject...	GLUC	Glucose	11	74 - 106	7/8/2012 9:15:54 PM	<input type="checkbox"/>	CBACK-; Repeat Rejected	cL_DELTA	cL_DELTA	11	333	58
VS2	Reject...	GLUC	Glucose	11	74 - 106	7/8/2012 9:15:54 PM	<input type="checkbox"/>	CBACK-; Repeat Rejected	cL_DELTA	cL_DELTA	11	333	58
VS2	Relea...	GLUC	Glucose	11	74 - 106	7/8/2012 8:53:42 PM	<input type="checkbox"/>	CBACK-; SUZIE RN AT 2020-REP	cL_DELTA	cL_DELTA	333	58	61

The below typo will cause the result to **NOT** file in SQ. You would need to correct the comment in OEM.


Test Worksheet														
Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Previous...	
*							<input type="checkbox"/>							
▶	YS2	Reject...	TP	Total Prot...	3-3	6.4 - 8.2	7/6/2012 10:48:10 ...	<input type="checkbox"/>		HOLD	Other Tests Held	3.2	3.2	6.9
	YS2	Reject...	TP	Total Prot...	3-2	6.4 - 8.2	7/6/2012 10:50:56 ...	<input type="checkbox"/>		HOLD	Other Tests Held	3.2	3.2	6.9
	YS2	Reject...	L	L	4		7/6/2012 10:33:07 ...	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
	YS2	Reject...	I	I	4		7/6/2012 10:33:07 ...	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	3
	YS2	Reject...	H	H	4		7/6/2012 10:33:07 ...	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
	YS2	Relea...	GLUC	Glucose	26	74 - 106	7/6/2012 10:36:32 ...	<input type="checkbox"/>	C SUSANRNBACK;	cL	cL	25	11	333
	YS2	Reject...	GLUC	Glucose	26	74 - 106	7/6/2012 10:43:01 ...	<input type="checkbox"/>	CBACK;	cL	cL	26	25	11

The comments shown below are entered correctly.

Test Worksheet														
Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...	Prev...	
*							<input type="checkbox"/>							
▶	VS3	Relea...	TBILN	Bilirubin, ...	0.30	0 - 1	7/4/2012 6:12:07 PM	<input type="checkbox"/>		HOLD	Other Tests Held	0.40	0.50	0.20
	VS3	Relea...	NA	Sodium	140.0	136 - 145	7/4/2012 6:04:15 PM	<input type="checkbox"/>		HOLD	Other Tests Held	146.0	149.0	151.0
	VS3	Relea...	L	L	1		7/4/2012 6:05:52 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
	VS3	Relea...	K	Potassium	HLK	3.5 - 5.1	7/4/2012 6:04:15 PM	<input type="checkbox"/>	NOTIFIED RN XY AT 1745	HEMOLYZED	HEMOLYZED	4.6	4.6	3.9
	VS3	Relea...	IBIL	Calc Indir...	0.3		7/4/2012 6:08:12 PM	<input type="checkbox"/>		HOLD	Other Tests Held	0.3		
	VS3	Relea...	I	I	1		7/4/2012 6:05:52 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1	1
	VS3	Relea...	H	H	4		7/4/2012 6:05:52 PM	<input type="checkbox"/>		HEMOLYZED	HEMOLYZED	1	1	1
	VS3	Relea...	GLUC	Glucose	114	74 - 106	7/4/2012 6:07:19 PM	<input type="checkbox"/>	REP	DELTA	DELTA	19	71	77
	VS3	Relea...	ECO2	Total CO2	23.0	21 - 32	7/4/2012 6:07:12 PM	<input type="checkbox"/>		HOLD	Other Tests Held	15.0	24.0	22.0
	VS3	Relea...	DBILN	Bilirubin, ...	0.05	0 - 0.3	7/4/2012 6:09:57 PM	<input type="checkbox"/>	HIR-REP	DELTA	DELTA	0.09	< 0.05	< 0.05
	VS3	Relea...	CREA	Creatinine	0.7	0.6 - 1.3	7/4/2012 6:06:43 PM	<input type="checkbox"/>		HOLD	Other Tests Held	>60	>60	1.3
	VS3	Relea...	CL	Chloride	104.0	98 - 107	7/4/2012 6:04:15 PM	<input type="checkbox"/>		HOLD	Other Tests Held	109.0	110.0	108.0
	VS3	Relea...	CA	Calcium	8.2	8.5 - 10.1	7/4/2012 6:06:36 PM	<input type="checkbox"/>		HOLD	Other Tests Held	9.0	9.4	9.2

Example 5

Review results for QC failures

1. Error noted (AC) means “QC Out of Range or Not Done - Check Instrument Status”
2. Reject  the bad results (FIBR and PTT). Release the DDIMER, INR, AND PTA only
3. Check the instrument for QC issues and troubleshoot. Rerun samples with bad results once QC for FIBR and PTT are in range.

Specimen Worksheet										Patient Information			
Specimen ID	Specimen ...	Requested Date/Time /	Patient Name	Prio...	Specimen Dil...	Collection Date/Time	Ri	Patient Name: CHEN Patient ID: 34576 Date of Birth: 8/22/1962 Sex: F Location - Facility: 3E10AA Ordering Physician: Collection Date/Time: 3/7/2015 9:10:00 PM					
030021474	Tests Held	3/7/2015 9:12:44 PM	CHEN	S		3/7/2015 9:10:00 PM							
020050292	Tests Held	3/7/2015 9:13:36 PM	CHEN	R		3/7/2015 9:11:00 PM							
020049212	Tests Held	3/7/2015 9:14:34 PM	CHEN	R		3/7/2015 9:12:00 PM							

Test St.	Test Code	Test Name	Result	Reference...	Result Date/Time /	Rer...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous R...	Pre
SS1	Held f...	DDIME	DDIMER	1.83	0 - 0.50	3/7/2015 10:35:4...		HOLD	Other Tests Held	0.35	<0.7
SS1	Held f...	FIBR	Fibrinogen	638	200 - 400	3/7/2015 10:35:4...		AC	QC Out of Range or Not ...	<60	60
SS1	Held f...	INR	INR	0.8		3/7/2015 10:35:4...		HOLD	Other Tests Held	<0.7	3.8
SS1	Held f...	PTA	Prothrombin Time	11.5	12.5 - 14.8	3/7/2015 10:35:4...		HOLD	Other Tests Held	<10	38.0
SS1	Held f...	PTT	PTT	28	23 - 37	3/7/2015 10:35:4...		AC	QC Out of Range or Not ...	<20	104

Example 6


Review of results with “Previously Resulted from a Different Instrument” error

1. DI will display an error and HOLD the results whenever a specimen or two specimens with the same accession numbers are run on two different instruments from the same class (for example, Vista 1 and Vista 2, Xpand 1 and Xpand 2, Stago 1 and Stago 2, Sysmex 1 and Sysmex 2)
2. Check SQ to see if the test has already been resulted. If resulted, then reject the rerun. If the first result has not been resulted, then select which run to release and reject the other run. Do not release both results from Instrument 1 and Instrument 2 to SQ as the first result will be overwritten by the second result

Test St.	Test Code	Test Name	Result	Units	Reference...	Result Date/Time /	Test Comment(s)	Error Code(s)	Error Name(s)	Previous R...	Pre
SS1	Held f...	INR	INR	3.8	INR	2/28/2017 2:42:4...	RVT	DELTA	DELTA		1.0
SS1	Held f...	PTA	Prothrom...	36.8	sec.	12.5 - 14.8	2/28/2017 2:42:4...	HOLD	Other Tests Held		13.2
SS1	Held f...	PTA	Prothrom...	36.8	sec.	12.5 - 14.8	2/28/2017 3:03:4...	Rerun	Range High,Rerun Test		13.2
SS1	Held f...	INR	INR	3.8	INR	2/28/2017 3:03:4...	RVT	DELTA,Rer...	DELTA,Rerun Test		1.0
SS2	Held f...	PTA	Prothrom...	39.1	sec.	12.5 - 14.8	2/28/2017 3:12:3...	Rerun	Range High,Previously resulted from a different instrument		13.2
SS2	Held f...	INR	INR	4.2	INR	2/28/2017 3:12:3...	CBACK: ~RVT	SH DELTA	Critical High,DELTA,Previously resulted from a different instrument		1.0

Example 7

Review of results with “Result removed. Repeat on a different instrument” error

1. DI will display this error when the CA (Calcium) is less than 5 and replace the result with a blank
2. Reject  the CA with the blank result
3. Rerun the test on a different instrument


Test ...	Test St...	Test Name	Result	Units	Referen...	Result Date/Time	Test Com...	Error Code(s)	Error Name(s)
WDV1	Held fo...	L		index	1.0 - 8.0	3/6/2020 9:51:...		HOLD	Other Tests Held
WDV1	Held fo...	I		index	1.0 - 8.0	3/6/2020 9:51:...		HOLD	Other Tests Held
WDV1	Held fo...	H		index	1.0 - 8.0	3/6/2020 9:51:...		HOLD	Other Tests Held
WDV1	Held fo...	Calcium			8.5 - 10.1	3/6/2020 9:53:...	CBACK:-	E522,CRITICAL...	Below Assay Range,CRITICAL REPEAT,Check sample for volume, fibrin, and clots.,cL,HOLD,Result removed. Repeat on a different Instrument

Invalid result was removed and replaced with a blank

Example 8

Review of results with E143 (Abnormal Assay) error

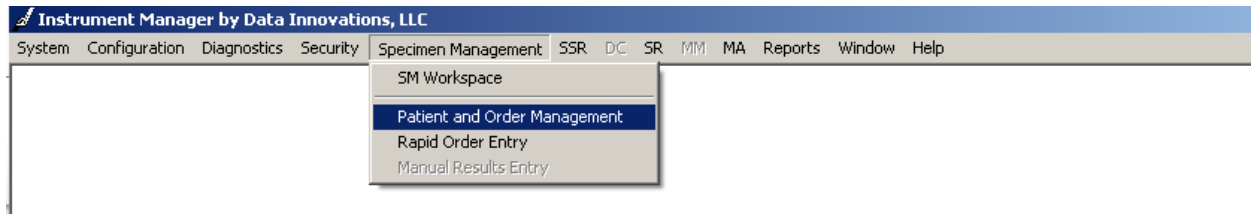
For this example, the CA is less than 5 and the GLUC is normal and has the E143 error

1. DI will display E143 error whenever the instrument encountered an error during testing. The result cannot be reported . DI will remove the result and replace it with a blank
2. Reject  the GLUC result with E143 error. Reject the CA
3. Rerun GLUC and the CA on a different instrument

Test Worksheet									
Tes...	Test St...	Test Name	Result	Refer...	Units	Result Date/Time	Test Comm...	Error Code(s)	Error Name(s)
*									
▶	VS1	Held fo...	CA			3/6/2020 2:54:56 PM	CBACK:-	E522,cL,Repeat on a differ...	Check sample for volume, fibrin, and clots.,cL,Result removed. Repeat on a different Instrument
	VS1	Held fo...	GLUC			3/6/2020 2:54:56 PM		E143,HOLD,HOLD,INV	Abnormal Assay or Reaction,Result removed. Repeat on a different instrument,INVALID RESULT

Invalid results were removed and replaced with blanks

H. Patient and Order Management



Select Patient and Order Management to look up previous results, order tests, and print results (downtime use only).

Note: Patient reports should only be printed from SQ for distribution to providers. The print feature is utilized to create preliminary reports for downtime purposes only or for internal use only.

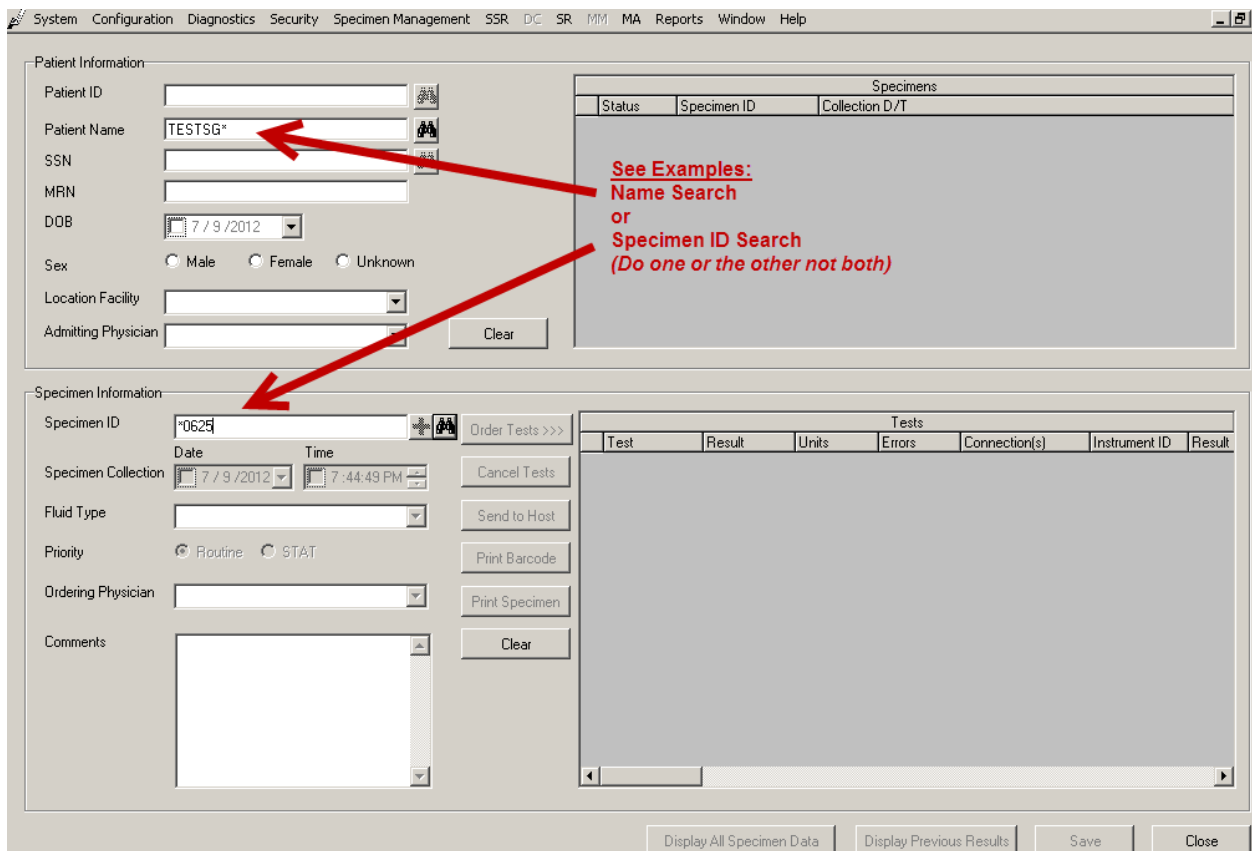
You can perform exact match searches or wild card searches.

Wild Card Searches

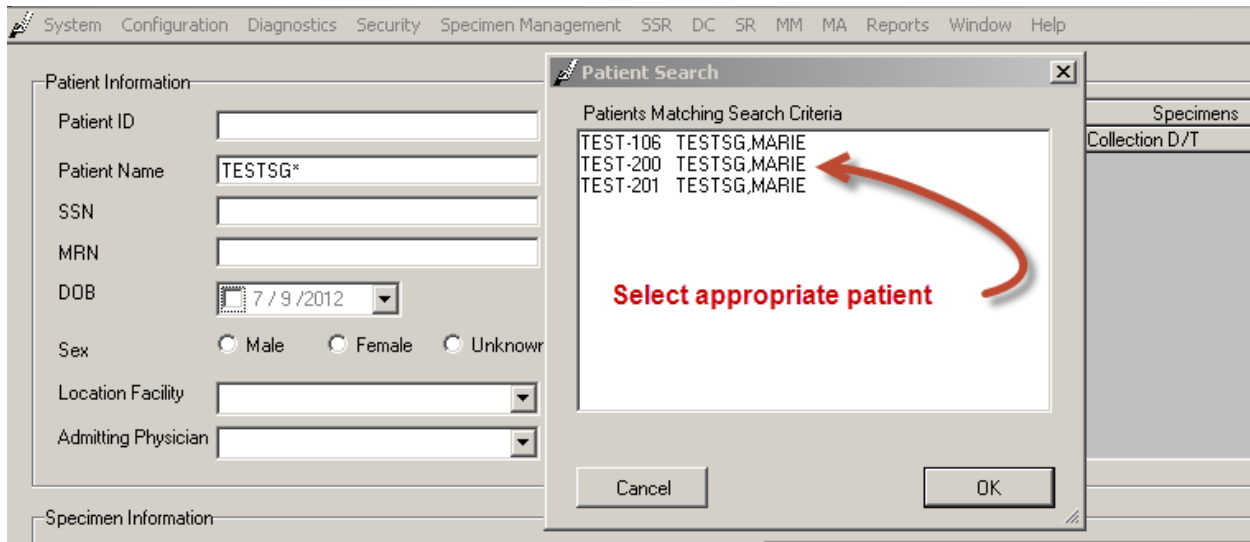
Patient name field type the search criteria, part of last name, followed by a wild card (*).

Specimen ID field type the wild card (*) followed by part of the specimen ID number.

Example Wild Card Searches



Result of Patient Name search



I. Out Patient Call Back List

Flag an Out-Patient for “Call Back” by removing the “CBACK-;” for the test comment field in IM.

When the result is released the Call Back List is automatically updated.

Example: Call Back

Specimen ID	Specimen Completion Status	Patient Name	Priority	Total Number of Tests ...	Specimen Dilu...
040003389	Tests Held	BBBSUNQUEST,VISTA BABY	R	13	1
040003334	Tests Held	BBBSUNQUEST,VISTA WDM...	R	18	1
040003307	Tests Held	BBBSUNQUEST,VISTA CHILD	R	3	1
040003338	Tests Held	BBBSUNQUEST,VISTA CHILD	R	3	1
1	Tests Held		R	5	1

Tes...	Test S...	Test Code	Test Name	Result	Reference ...	Result Date/Time	Re...	Test Comment(s)	Error Code(s)	Error Name(s)	Previous...	Previous...
*							<input type="checkbox"/>					
VS1	Held f...	TP	Total Prot...	3.2	6.4 - 8.2	7/9/2012 10:12:25 ...	<input type="checkbox"/>		HOLD	Other Tests Held		7.8
VS1	Held f...	L	L	1		7/9/2012 9:51:00 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1
VS1	Held f...	I	I	1		7/9/2012 9:51:00 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	1
VS1	Held f...	H	H	1		7/9/2012 9:51:00 PM	<input type="checkbox"/>		HOLD	Other Tests Held	1	2
VS1	Held f...	GLUC	Glucose	32	74 - 106	7/9/2012 9:52:30 PM	<input type="checkbox"/>		cL	cL	36	958

Remove CBACK-:
 For an Out Patient Location removing CBACK-:
 automatically sends the result to the call back list.

J. Tests Requiring Special Handling/Programming

Due to multiple fluid types on the same accession number special consideration must be given to CRCL and GTT testing. These tests should be manually programmed on the instrument utilizing the following format:

Program the accession number + TEST

CRCL - Example

F3200 UCRR

F3200 CREA

GTT

F3201 GT0

F3201 GT1

F3201 GT2

F3201 GT3

Results will need to be entered manually in MEM.

K. Start Holding All Results

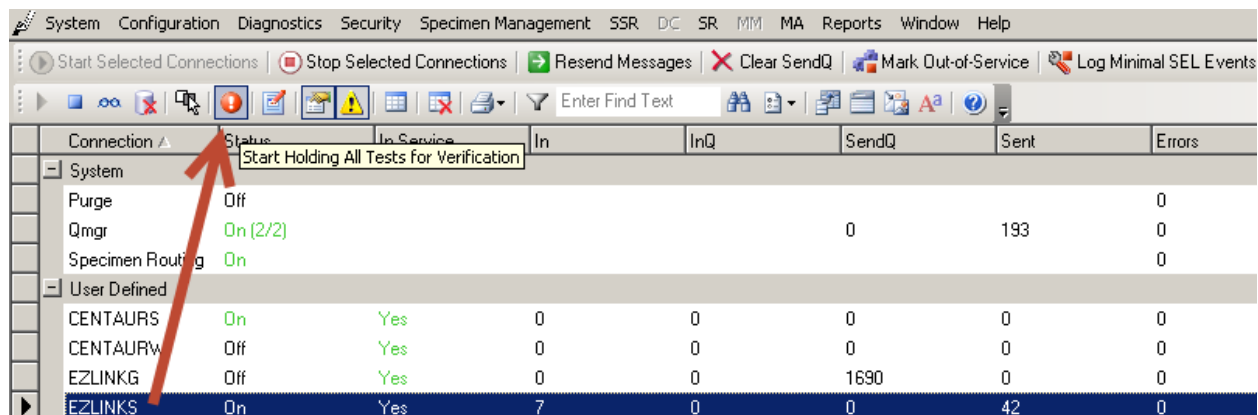
If there is a suspected problem with Auto-verification there is a command to Immediately Stop Auto-Verifying Results. If the need arises to STOP Auto-Verification do so, then immediately:

- Notify Lab Management (Supervisor/Director/Admin On-Call).
- Notify other system laboratories.
- Complete a QV Form.
- Begin releasing results manually.

Go to the System-Status screen.



Select the appropriate interface (example. ELINKS or EZLINKW)

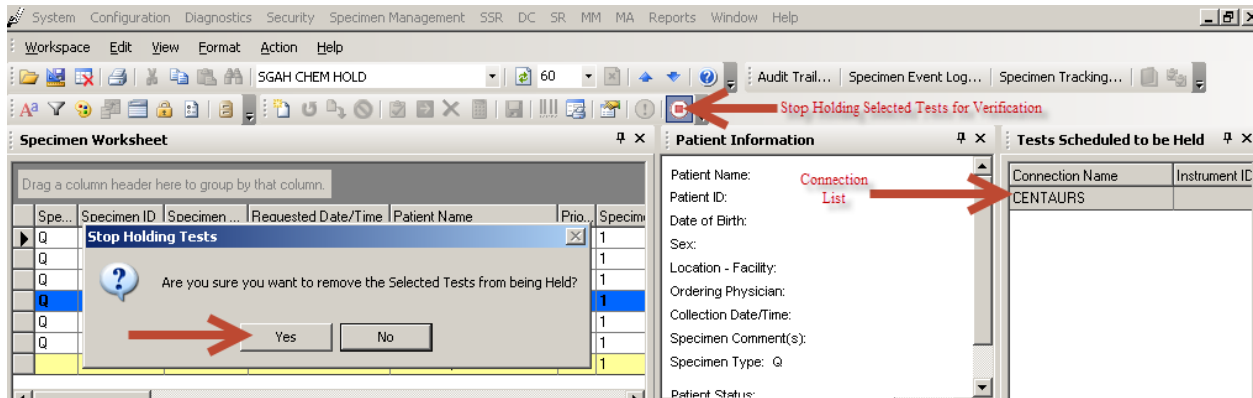
Select  Start Holding All Test For Verification



Connection	Status	In Service	In	InQ	SendQ	Sent	Errors
System							
Purge	Off						0
Qmgr	On (2/2)				0	193	0
Specimen Routing	On						0
User Defined							
CENTAURS	On	Yes	0	0	0	0	0
CENTAURW	Off	Yes	0	0	0	0	0
EZLINKG	Off	Yes	0	0	1690	0	0
EZLINKS	On	Yes	7	0	0	42	0


To turn the Auto – Verification back on, from the SM Workspace page

- Select  **Stop Holding Selected Tests for Verification**
- Select the appropriate connection name
- Then select  **Stop Holding Selected Tests for Verification**



L. Quality Control

The Data Innovation software evaluates each QC result against acceptable ranges and highlights the ones that violate the QC rules, in blue color. The DI software will use the 1 – 2s, 2 – 2s and 1 – 3s Statistical Process Control (SPC) rules to describe the extent of the failure. Before releasing the QC result which has violated the QC rule, a corrective action must be added to the failed QC. To add a corrective action to QC results,



- under **Specimen Worksheet** click on blue highlighted QC
- under **Test Worksheet** select the blue highlighted assay which has violated the QC rule
- **QC Action Log**  icon gets activated
- select the appropriate action that has been (*Not Will Be*) taken to trouble shoot the failed QC
- click on **Add Selected Action to Data Point**

Release the QC result, the selected action will now migrate to Bio-Rad Unity Real Time.

The screenshot shows the 'Instrument Manager by Data Innovations, LLC - [Specimen Management Workspace]'. The main window displays a 'Specimen Worksheet' with columns for Specimen ID, Specimen C., Requested Date/Time, Patient Name, Priority, and Specimen. A red arrow points to a warning icon in the toolbar above the worksheet. An 'Add Corrective Action' dialog box is open, listing various actions such as 'AC. Control: repeated level 1 - Accepted' and 'CC. Instrument calibrated'. A red arrow points to the 'Add Selected Action to Data Point' button at the bottom of the dialog. Below the specimen list is a 'Test Worksheet' table with columns for Test Name, Result, Reference Range, Result Date/Time, Test Comment, QC Rule Violated, QC Level, Error Code(s), Error Name(s), and QC Action Log Flag. A red arrow points to a row in the Test Worksheet with a '2SI' error code. The bottom status bar shows 'Last Updated: 3/5/2013 8:17:58 AM' and 'Logged On User: 153737'.

When QC results fail, **stop the Auto-Verification immediately**. Once the QC is repeated and falls within acceptable ranges turn the Auto-Verification back on. Utilizing the process below, click on the designated icon, then select the connection name and designated test to stop holding:

To turn the Auto – Verification back on, from the SM Workspace page

- Select  **Stop Holding Selected Tests for Verification**
- Select the appropriate connection name
- Then select  **Stop Holding Selected Tests for Verification**

M. Color Coding Standard (Standard coding across all instruments connected via DI)

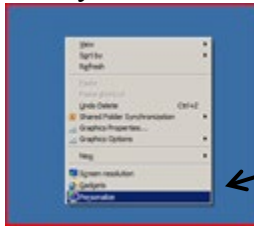
Description	Criteria	Format Type	Field to Format	Value	Workspaces to Format
Critical	'CH' or 'CL'	Cell	Error Code(s)	N/A	All
Delta	'DELTA'	Cell	Error Code(s)	N/A	All
Stat Priority	'S'	Cell	Priority	N/A	All
Rejected	'Rejected'	Cell	Result	N/A	All
Cancelled	'Cancelled'	Cell	Result	N/A	All
Outpatient	'S'	Row		N/A	SGAH CHEM HOLD
No Sample	'E172'	Cell	Error Code(s)	N/A	All
Above Assay RNG	'E521'	Cell	Error Code(s)	N/A	All
CRIT	'CRIT'	Cell	Error Name(s)	N/A	All
QC	'BRQC'	Row		N/A	All
Stago QC OUT	'AC'	Row		N/A	Connection Testing,GEC CHEM & COAG HOLD,GEC COAG HOLD,SGAH
Stago Numeric Errors Codes	'2' or '5' or 'DELTA'	Cell	Error Code(s)	N/A	Connection Testing,GEC CHEM & COAG HOLD,GEC COAG HOLD,SGAH
Stago Alpha Errors Codes	'AA' or 'AH' or 'AI' or 'I'	Cell	Error Code(s)	N/A	Connection Testing,GEC CHEM & COAG HOLD,GEC COAG HOLD,SGAH
Stago QNS	'6' or 'AE' or 'AF' or 'A'	Cell	Error Code(s)	N/A	Connection Testing,GEC CHEM & COAG HOLD,GEC COAG HOLD,SGAH
Stago Assay RNG	'3' or '4' or '8'	Cell	Error Code(s)	N/A	Connection Testing,GEC CHEM & COAG HOLD,GEC COAG HOLD,SGAH
UA Hold	'Correlation' or 'Refra'	Cell	Error Code(s)	N/A	SGAH Second Level Review HOLD,SGAH URINALYSIS HOLD,WAH
USPG	'Refractometer'	Cell	Result	N/A	SGAH Second Level Review HOLD,SGAH URINALYSIS HOLD,WAH
Result Run Workspace	''	Cell	Result	N/A	All
Urine QC Expired/Out	'Fail' or 'QC Time Out'	Row		N/A	SGAH Second Level Review HOLD,SGAH URINALYSIS HOLD,WAH
For Path Review	'Review' or 'TEA' or 'I'	Cell	Error Code(s)	N/A	GEC HEME HOLD,Hematology Workspace,SGAH HEME HOLD,WAH
Hemo HOLD	'DIFF' or 'MORPH' or 'Cell'	Cell	Error Code(s)	N/A	GEC HEME HOLD,Hematology Workspace,SGAH HEME HOLD,WAH

N. Computer display settings for using Data Innovation

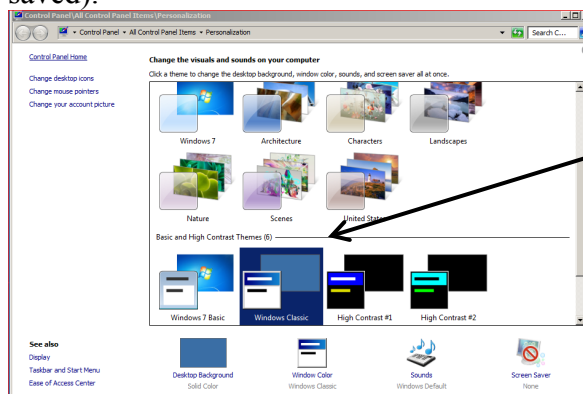
It is important that the desktop windows colors are set correctly. If not, your color flagging in the DI application will not be correct.

To check or change the display setting:

1. With your cursor on the desktop, right click THEN click on **Personalize**



2. In the “Basic and High Contrast Themes” section - Look at the “Windows Classic” icon. The Current theme being used will be backlit (see example below). “Windows Classic” is backlit. If it is not backlit on your computer, then click on the **theme**. “Please wait” will display on the screen while it is resetting. Once done, X out of the screen (the setting will be saved).



Windows Classic is backlit and Windows 7 Basic is not backlit

O. No Demographics Rules

Rules are built in DI for tests that have age-dependent critical values defined. If an order is processed that does not contain a patient age, DI will hold the result and display an error message to alert technologist to review for critical value.

Example:

Specimen Worksheet							Patient Information		
Spe...	Specimen ID	Patient Name	Specimen Comple...	Requested Date/Time			Patient Name:		
	BB12DD		Tests Held	7/17/2019 2:09:54 PM			Patient ID:		
	BB14DD		Tests Held	7/17/2019 2:15:56 PM			Date of Birth:		
	BB15DD		Tests Held	7/17/2019 2:25:37 PM			Sex:		
							Location - Facility:		
							Ordering Physician:		
Test Worksheet									
Test...	Test St...	Test Name	Result	Referen...	Units	Result Date/Time	Test Comment(s)	Error Code(s)	Error Name(s)
*									
	VS2	Held fo...	GLUC	34		7/17/2019 2:25:48 PM		No Demographics	Verify if critical or not before releasing result

6. RELATED DOCUMENTS

- OEM - On Line Entry Method, LIS procedure
- MEM - Manual Result Entry, LIS procedure
- Critical Values - Accepting Results in LIS, LIS procedure
- Correcting Results, LIS procedure
- Delta Check, QA procedure

7. REFERENCES

- User Documentation, *Instrument Manager v8.12*, Data Innovations, INC.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
000	3/12/2013	Update owner Section 5: Added process to reinstate Auto-verification to item K. Added QC section (item L)	A. Chini	R. SanLuis
001	3/18/2015	Section 5: Add auto-log off, update screen shots, add Coag and GEC instruments, update work lists, remove outdated calculation example, add Coag example Section 6: add Delta Check Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13	D. Concepcion L. Barrett	R. SanLuis
2	6/8/2016	Section 5: Add Iris (Urinalysis) processing through DI	D. Concepcion M. Sabonis	R. SanLuis
3	8/1/2016	Header: Add other sites Section 5: Add second level review for crystals	D. Concepcion	R. SanLuis
4	5/18/2017	Section 5: Add Hematology Interfaces & work lists, Update Iris QC, add example 6 (previously resulted from different instrument error) Section 6: Remove SOP numbers Section 9: Add addenda; Move Iris actions from section 5, add Coag and Sysmex (Hematology) processing through DI	D. Concepcion M. Sabonis L. Barrett	R. SanLuis
5	9/17/2017	Addendum 3: add steps 11-19	D. Concepcion	R. SanLuis
6	2/13/2018	Section 5.D: Replaced ELINKG with EXPG1 & EXPG2. Section 5: Added windows color setting as item N. Addendum 3: Added color flagging of critical/delta	M. Sabonis	R. SanLuis
7	7/10/2018	Section 5.G: Added reference to addendum 4 Section 9: Added addendum 4	D. Concepcion	R. SanLuis
8	1/18/2019	Header: Updated parent facility Section 5.G: Updated addendum number Section 9: Removed Sysmex (added to CBC SOP), re-numbered addenda, corrected UOM for tropi	L. Barrett	R. SanLuis

Version	Date	Reason for Revision	Revised By	Approved By
9	8/21/2019	Header: Changed WAH to WOMC Section 5.D: Added AUWi & removed Iris Section 5.G: Updated addendum number Section 5.O: Added no demographics rule Section 9: Removed Coag (added to STA Operation SOP) and Iris (instrument retired), added DI v8.16, re-numbered addenda	L. Barrett D. Concepcion	R. SanLuis
10	3/17/2020	Section 5.F: Changed WAH to WOMC, added combined work lists for UA/Coag and Heme/Coag Section 5.G: Added examples 7 & 8	D Concepcion	R SanLuis

9. ADDENDA AND APPENDICES

1. Troponin Critical Value Actions
2. Action Menu Changes for DI version 8.16

Addendum 1

Troponin Critical Value Actions

Example 1

Normal troponin

Action: Auto-released by DI

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection Date/Time	Patient Name:	TEST, TROP3		
▶	TUBE1	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				Patient ID:	12345673		
								Date of Birth:	5/30/2018		
								Sex:			

Test Worksheet											
T...	Test ...	Test ...	Result	Referen...	Result Date/Time ^	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...	
▶	V51	Relea...	CTNI	0.07		5/30/2018 10:18:17 ...					

Example 2

First (initial) critical troponin for this patient

Action: Call critical troponin to provider and document per policy in Test Comment field

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection Date/Time	Run Count	Le ^		
▶	TUBE2	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				5/...			

Test Worksheet											
T...	Test ...	Test ...	Result	Referen...	Result Date/Time ^	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...	
▶	V51	Held f...	CTNI	0.10		5/30/2018 10:18:35 ...	CBACK: TEST TROP 05302018 1021 123	cH	cH	0.07	5/30/2018 10:18:17 AM

Example 3

The previous critical troponin value is between 0.1 - 1.0 ng/mL.
 The current troponin value is NOT ≥ 10 times the previous value.

Action: Change the Test Comment field to TROPc and result

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection Date/Time	Patient Name:	TEST, TROP3		
▶	TUBE3	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				Patient ID:	12345673		
								Date of Birth:	5/30/2018		
								Sex:			

Test Worksheet											
T...	Test ...	Test ...	Result	Referen...	Result Date/Time ^	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...	
▶	V51	Held f...	CTNI	0.30		5/30/2018 10:43:32	TROPc~RVT	cH,DELTA	cH,DELTA	0.10	5/30/2018 10:18:35 AM

Current
Result

Previous Result

Addendum 1 continued

Example 4

The previous critical troponin value is between 0.1 - 1.0 ng/mL.
 The current troponin value is ≥ 10 times the previous value.
 The Error Code has “CALL” and the Error Name has “CALL TROP”

Action: Call critical troponin to provider and document per policy in Test Comment field

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection L...				
/	TUBE4	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				Patient Name: TEST, TROP3 Patient ID: 12345673 Date of Birth: 5/30/2018 Sex:			

T...	Test ...	Test ...	Result	R...	Result Date/Time	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...
/	VS1	Held f...	CTNI	3.00	5/30/2018 10:46:45 ...	CBACK-; TEST TROP 05302018 1203 4082~RVT	cH,CALL,DELTA	cH,CALL TROP,DELTA	0.30	5/30/2018 10:43:32 AM

Example 5

The previous critical troponin value is between 1.01 – 20.00 ng/mL.
 The current troponin value is NOT ≥ 5 ng/mL more than the previous value.

Action: Change the Test Comment field to TROP C and result

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection L...				
/	TUBE5	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				Patient Name: TEST, TROP3 Patient ID: 12345673 Date of Birth: 5/30/2018 Sex:			

T...	Test ...	Test ...	Result	R...	Result Date/Time	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...
/	VS1	Held f...	CTNI	4.10	5/30/2018 12:06:30 ...	TROP C	cH	cH	3.00	5/30/2018 10:46:45 AM

Example 6

The previous critical troponin value is between 1.01 -20.00 ng/mL.
 The current troponin value is ≥ 5 ng/mL more than the previous value.
 The Error Code has “CALL” and the Error Name has “CALL TROP”

Action: Call critical troponin to provider and document per policy in Test Comment field

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection L...				
/	TUBE6	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				Patient Name: TEST, TROP3 Patient ID: 12345673 Date of Birth: 5/30/2018 Sex:			

T...	Test ...	Test ...	Result	R...	Result Date/Time	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...
/	VS1	Held f...	CTNI	9.10	5/30/2018 12:08:55 ...	CBACK-; TEST TROP 05302018 1209 4082~RVT	cH,CALL,DELTA	cH,CALL TROP,DELTA	4.10	5/30/2018 12:06:30 PM

Addendum 1 continued

Example 7

The previous critical troponin value is 20.01 ng/mL or more.
 The current troponin value is ≥ 25 ng/mL more than the previous value.
 The Error Code has “CALL” and the Error Name has “CALL TROP”

Action: Call critical troponin to provider and document per policy in Test Comment field

Specimen Worksheet								Patient Information			
Spe...	Specimen ID	Specimen ...	Requested Date/Time	Patient Name	Prio...	Specimen Dil...	Collection [▲]				
/	TUBE8	Tests Held	5/30/2018 10:18:17 AM	TEST, TROP3				Patient Name: TEST, TROP3 Patient ID: 12345673 Date of Birth: 5/30/2018 Sex:			

Test Worksheet										
T...	Test ...	Test ...	Result	R...	Result Date/Time ▾	Test Comment(s)	Error Code(s)	Error Name(s)	Prev...	Previous Result Date/T...
/	V51	Held f...	CTNI	47.00	5/30/2018 12:21:24 ...	CBACK-; TEST TROP 05302018 1221 4082	cH, CALL DELTA	cH, CALL TROP DELTA	22.00	5/30/2018 12:18:57 PM

Addendum 2

Action Menu Changes for DI version 8.16

The DI version 8.16 Action Menu for specimen workspaces that use the Test Worksheet layout has a submenu that groups the Release, Reject, Send to Host and Print Report actions. The test worksheet layouts are used by the Vista, Stago, Centaur, and Expand specimen workspaces.

For specimen workspaces that use the Run Worksheet layout such as the Sysmex and AUWI workspaces, the Release, Reject, Send to Host and Print Report actions are within the main Action menu.

Release, Reject, Send to Host and Print Report Actions

For Test Worksheet		For Run Worksheet																														
<ul style="list-style-type: none"> Out Copy Paste Insert Coded Entry... Filter... Color Coding / Field Formatting... Field Chooser... Group By Box Freeze Columns Banes Order New Tests... Action QC Action Log... Stop Holding Selected Tests for Verification for Group Audit Trail... Specimen Tracking... Specimen Event Log... Send Selected Data to Rules Testing... Test Status History... Show All Data... Print... 	<table border="1"> <thead> <tr> <th>Result (1)</th> <th>Units (1)</th> <th>Result Date/Time</th> </tr> </thead> <tbody> <tr><td>1+</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>3+</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>1.0</td><td>EU/dL</td><td>8/14/2019 10:50</td></tr> <tr><td>>=9.0</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>3+</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>2+</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>POSITIVE</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>CLEAR</td><td></td><td>8/14/2019 10:50</td></tr> <tr><td>1.003</td><td></td><td>8/14/2019 10:50</td></tr> </tbody> </table> <ul style="list-style-type: none"> Order Rerun/Reflex... Manually Download Pending Tests Cancel Release for Second Level Review Release Send to Host Reject Result Rerun/Reject Print/Rerun/Reject Average Selected Results Print Barcode Print Report Edit Run Information... 	Result (1)	Units (1)	Result Date/Time	1+		8/14/2019 10:50	3+		8/14/2019 10:50	1.0	EU/dL	8/14/2019 10:50	>=9.0		8/14/2019 10:50	3+		8/14/2019 10:50	2+		8/14/2019 10:50	POSITIVE		8/14/2019 10:50	CLEAR		8/14/2019 10:50	1.003		8/14/2019 10:50	<ul style="list-style-type: none"> Verify Run with Cell Counter Edit Run with Cell Counter Release Run 1/Reject Other Runs Release (none)/Reject Other (none) Reject Run 1 Reject (none) Rerun (none) Order New Tests... Order Rerun/Reflex... Release for Second Level Review Release Send to Host Reject Result Rerun/Reject Print/Rerun/Reject Insert Coded Entry... Edit Run Information... Print Barcode Print Report Print...
Result (1)	Units (1)	Result Date/Time																														
1+		8/14/2019 10:50																														
3+		8/14/2019 10:50																														
1.0	EU/dL	8/14/2019 10:50																														
>=9.0		8/14/2019 10:50																														
3+		8/14/2019 10:50																														
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CLEAR		8/14/2019 10:50																														
1.003		8/14/2019 10:50																														