



**sysmex**

Lighting the way **with diagnostics**

# **SYSTEMEX WAM AUTOMATED/MANUAL BODY FLUID CELL COUNT**

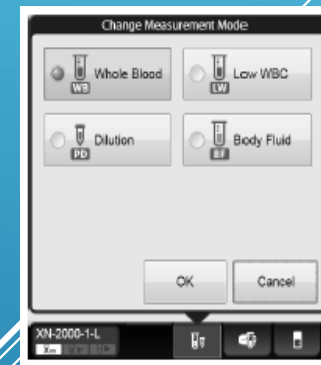
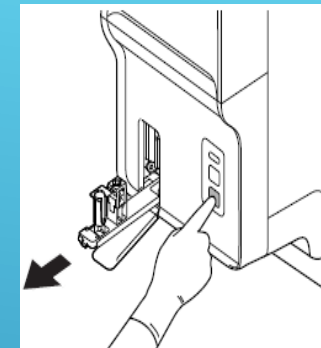
# Objectives

- Information Workflow
- Automated Cell Count
- Automated Cell Count with Offline Dilution
- WBC Differential
- Manual Count



# INFORMATION WORKFLOW

- **Important:** Always check body fluid samples for fibrin and clots prior to running sample on the analyzer. Use Hyaluronic Acid if needed.
- Set the analyzer to body fluid mode
  - Check the Status indicator LED on the analyzer to confirm analyzer is in **READY** state.
  - Press the mode switch to eject the tube holder.
  - Select the Change Analysis Mode button on the control menu.
- Select [OK]
- Properly mix the specimen and place in the tube holder.
- Press the Start button



# AUTOMATED CELL COUNT

## RESULT VALIDATION

### Selection Criteria

Empty selection criteria box.

### Patient Demographics

Sample ID	220120000029A	Diagnosis 1	
MRN	ZZ000007138	Diagnosis 2	
Name	MDIASSAY,OCI	Req. Location	NP OCI LAB
DOB/Age/Sex	01/01/1900 120 Years Male	Req. Phys.	
Collection d/t	04/29/2020 11:55:00	Req. Name	DUMMY.TEST
Receipt d/t	04/29/2020 11:55:00	Req. Phone	
		Care Unit	NP OCI LAB
		Room Number	
Sample Loc	GXN903-XN-000001-01		

### OP Alerts

Run	Description
	No Operator Alerts

### Samples

220120000029A

- Result Validation
- Rerun
- Manual Differential
- Morphology
- Previous Results
- View Critical Calls
- OP Alerts

### Instrument

Sel	Test Code	Result	Comment	Run 1	Prev Res	Prev Com
<input type="checkbox"/>	TCBF	498			154	
<input type="checkbox"/>	RBCBF	178000			1000	
<input type="checkbox"/>	APPBF					
<input type="checkbox"/>	COLRBF					

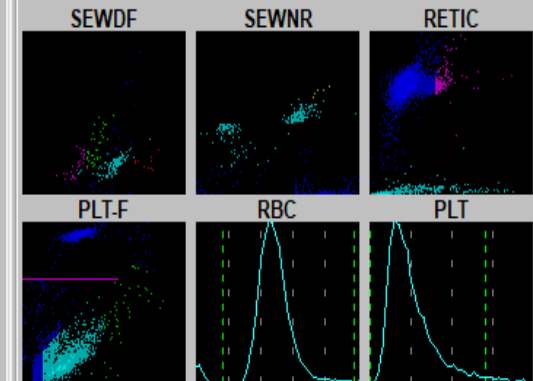
### Manual

Sel	Test Code	Result	Comment
<input type="checkbox"/>	COMNT		
<input type="checkbox"/>	FNEUT		
<input type="checkbox"/>	FLYMP		
<input type="checkbox"/>	FMESO		
<input type="checkbox"/>	FMONO		
<input type="checkbox"/>	FOTHER		
<input type="checkbox"/>	FEOSI		
<input type="checkbox"/>	FBASO		

### Flags

No Flags to report for any Run

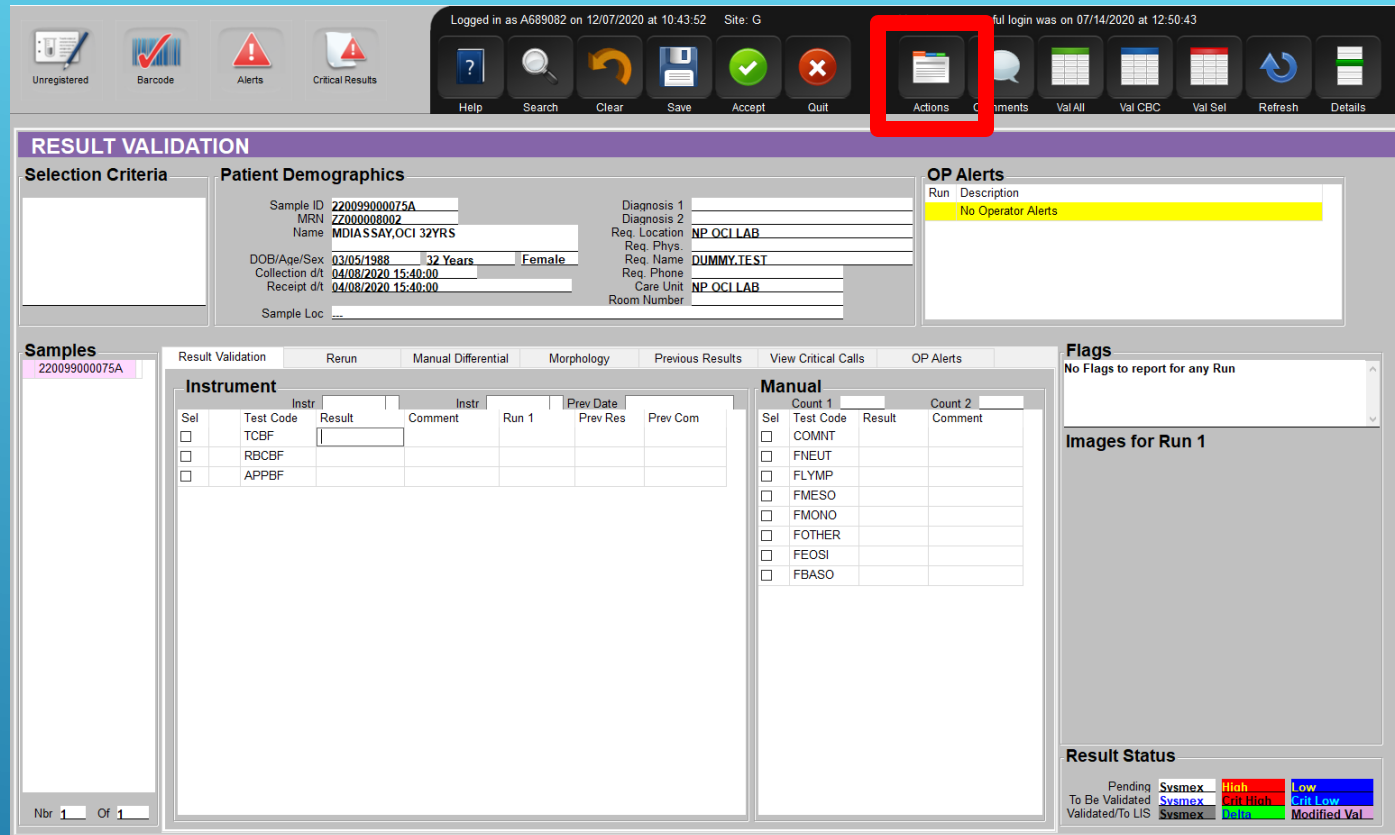
### Images for Run 1



## OffBoard Dilution / Repeat Assay

For Assay rerun or offline dilution, click on the [Action] button and click on Rerun. This will add a rerun order to the accession in WAM

- Rerun the sample according to the procedure
- If Off board dilution is necessary, make the off board dilution and rerun sample according to procedure



Logged in as A689082 on 12/07/2020 at 10:43:52 Site: G  
 Full login was on 07/14/2020 at 12:50:43

Unregistered Barcode Alerts Critical Results Help Search Clear Save Accept Quit Actions Comments Val All Val CBC Val Sel Refresh Details

### RESULT VALIDATION

**Selection Criteria**

**Patient Demographics**

Sample ID: 220099000075A  
 MRN: 22000008002  
 Name: MOIASSAY,OCI 32YRS  
 Diagnosis 1: \_\_\_\_\_  
 Diagnosis 2: \_\_\_\_\_  
 Req. Location: NP.OCLAB  
 Req. Phys: \_\_\_\_\_  
 Req. Name: DUMMY.TEST  
 Req. Phone: \_\_\_\_\_  
 Care Unit: NP.OCLAB  
 Room Number: \_\_\_\_\_

DOB/Age/Sex: 03/05/1988 32 Years Female  
 Collection d/t: 04/08/2020 15:40:00  
 Receipt d/t: 04/08/2020 15:40:00  
 Sample Loc: \_\_\_\_\_

**OP Alerts**

Run Description  
 No Operator Alerts

**Samples**

220099000075A

Result Validation Rerun Manual Differential Morphology Previous Results View Critical Calls OP Alerts

**Instrument**

Sel	Test Code	Instr	Result	Comment	Run 1	Prev Date	Prev Res	Prev Com
<input type="checkbox"/>	TCBF							
<input type="checkbox"/>	RBCBF							
<input type="checkbox"/>	APPBF							

**Manual**

Sel	Test Code	Result	Count 1	Count 2
<input type="checkbox"/>	COMNT			
<input type="checkbox"/>	FNEUT			
<input type="checkbox"/>	FLYMP			
<input type="checkbox"/>	FMESO			
<input type="checkbox"/>	FMONO			
<input type="checkbox"/>	FOTHER			
<input type="checkbox"/>	FEOSI			
<input type="checkbox"/>	FBASO			

**Flags**

No Flags to report for any Run

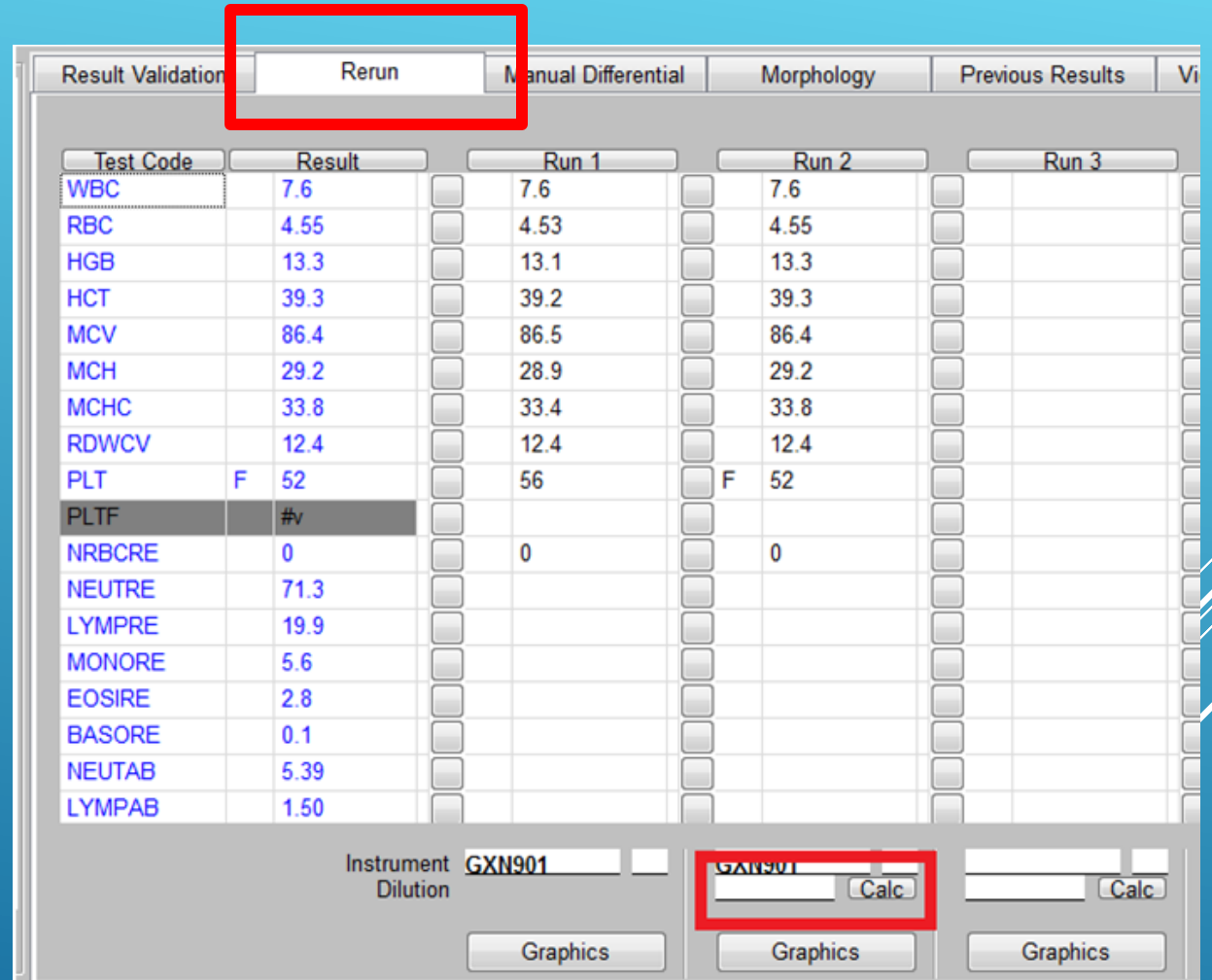
**Images for Run 1**

**Result Status**

Pending Sysmex High Low  
 To Be Validated Sysmex Crit High Crit Low  
 Validated/To LIS Sysmex Valid Modified Val

# AUTOMATED CELL COUNT RERUN / DILUTION

- Rerun result will cross into WAM
- To choose the rerun sample click on the RERUN Tab and select the acceptable run
- If there is an off board dilution performed on the sample, place the dilution factor on the bottom of the rerun and click on [CALC] to apply the factor



Result Validation | **Rerun** | Manual Differential | Morphology | Previous Results | Vi

Test Code	Result		Run 1		Run 2		Run 3
WBC	7.6	<input type="checkbox"/>	7.6	<input type="checkbox"/>	7.6	<input type="checkbox"/>	
RBC	4.55	<input type="checkbox"/>	4.53	<input type="checkbox"/>	4.55	<input type="checkbox"/>	
HGB	13.3	<input type="checkbox"/>	13.1	<input type="checkbox"/>	13.3	<input type="checkbox"/>	
HCT	39.3	<input type="checkbox"/>	39.2	<input type="checkbox"/>	39.3	<input type="checkbox"/>	
MCV	86.4	<input type="checkbox"/>	86.5	<input type="checkbox"/>	86.4	<input type="checkbox"/>	
MCH	29.2	<input type="checkbox"/>	28.9	<input type="checkbox"/>	29.2	<input type="checkbox"/>	
MCHC	33.8	<input type="checkbox"/>	33.4	<input type="checkbox"/>	33.8	<input type="checkbox"/>	
RDWCV	12.4	<input type="checkbox"/>	12.4	<input type="checkbox"/>	12.4	<input type="checkbox"/>	
PLT	F 52	<input type="checkbox"/>	56	<input type="checkbox"/>	F 52	<input type="checkbox"/>	
PLTF	#v	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
NRBCRE	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	
NEUTRE	71.3	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
LYMPRE	19.9	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
MONORE	5.6	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
EOSIRE	2.8	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
BASORE	0.1	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
NEUTAB	5.39	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
LYMPAB	1.50	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

Instrument Dilution GXN901 | GXN901 | **Calc** | Calc

Graphics | Graphics | Graphics

Counter										Instrument		
Test	Key	1	2	Avg	Avg	Prev Date	Com	Prev Res	Prev Com	Test	Result	Com
NEUT	+	0.00	0.00	0.00	0.00					TCBF		
LYMP	6	0.00	0.00	0.00	0.00					RBCBF		
MONO	5	0.00	0.00	0.00	0.00					APPBF		
EOSI	7	0.00	0.00	0.00	0.00							
BASO	8	0.00	0.00	0.00	0.00							
BAND	4	0.00	0.00	0.00	0.00							
META	9	0.00	0.00	0.00	0.00							
MYELO	3	0.00	0.00	0.00	0.00							
PROMY	2	0.00	0.00	0.00	0.00							
BLAST	1	0.00	0.00	0.00	0.00							
NRBCMI	0	0.00	0.00	0.00	0.00							

Count 1  Count 2  Mean  Add  Count  Counter  **MDIFF**

Limit  100



Counter										Instrument		
Test	Key	1	2	Avg	Avg	Prev Date	Com	Prev Res	Prev Com	Test	Result	Com
FNEUT	+	0.00	0.00	0.00	0.00					TCBF		
FLYMP	6	0.00	0.00	0.00	0.00					RBCBF		
FMONO	5	0.00	0.00	0.00	0.00					APPBF		
FEOSI	7	0.00	0.00	0.00	0.00							
FBASO	8	0.00	0.00	0.00	0.00							
FMESO	4	0.00	0.00	0.00	0.00							
FOTHER	1	0.00	0.00	0.00	0.00							

Count 1  0 Count 2  0 Mean  Add  Count  Counter  **FDIFF1**

Limit  100

Using the Dropdown arrow change the MDIFF keys to FDIFF keys to access the Body Fluid Differential keys

- The Differential keys were mirrored as close as possible to the default CBC differential keys
  - FNEUT = +
  - FLYMPH = 6
  - FMONO = 5
  - FEOS = 7
  - FBASO = 8
  - FMESO = 4
  - FOTHER = 1





# MANUAL BODY FLUID CELL COUNT

## Performing a Manual Cell Count

Depending on the automated cell count result, the user can choose to perform a manual cell count on RBC, TCBF or both

- Click on the [Action] button and click on either RBC Manual, TC Manual or both. This will add an additional field for the manual count in WAM
- Adding a manual count will default the automated count to “NOT PERFORMED”
- Perform the Manual Cell Count according to Policy and Procedure
- Enter the result in the additional fields for Manual Count.

Sel	Code	Description
<input type="checkbox"/>	RERUN	RERUN
<input type="checkbox"/>	LWBC	LWBC (XN)
<input type="checkbox"/>	PLTF	PLT-F (XN)
<input type="checkbox"/>	IPFH	IPF
<input type="checkbox"/>	MDIFF	MANUAL DIFF
<input type="checkbox"/>	SMEAR	SMEAR
<input type="checkbox"/>	WPC	WPC (XN)
<input type="checkbox"/>	TNCBFM	TC HEMOCYTOMETER COUNT
<input type="checkbox"/>	RBCBFM	RBC HEMOCYTOMETER COUNT

Buttons: Add, Remove, Quit



- Automated Count = Not measured
- BF Vol = Fluid Volume
- APPBF = Fluid Appearance
- COLRBF = Fluid Color
- Xanthochromic = Yes/No
- RBCCALC = Which square did you count (large or small)
- RBCSD1 & 2 = Raw Count
- RBCDIL = Dilution factor
- RBCSQ = Number of squares counted

RESULT VALIDATION

**Selection Criteria**

From Receipt Date = 04/24/2020  
 Discipline = HEMA  
 By Profile = ALL TYPES

**Patient Demographics**

Sample ID: 220120000036A  
 MRN: Z7000007138  
 Name: MDIASSAY,OCI  
 DOB/Age/Sex: 01/01/1900 120 Years Male  
 Collection d/t: 04/29/2020 12:04:00  
 Receipt d/t: 04/29/2020 12:04:00  
 Sample Loc: GXX903-XN-000001-01

**OP Alerts**

Run	Description
1	RBCBF Linearity: Perform slide review or cytospin

**Samples**

220120000036A

**Instrument**

Sel	Test Code	Result	Comment	Run 1	Prev Res	Prev Com
<input type="checkbox"/>	TCBF	10301			314	
<input type="checkbox"/>	RBCBF	not measured			1000	
<input type="checkbox"/>	RBCBFM	28			58	
<input type="checkbox"/>	BFVOL	3.8				
<input type="checkbox"/>	APPBF	Hazy			#HZ	
<input type="checkbox"/>	COLRBF	Colorless				
<input type="checkbox"/>	XANTHR	No				
<input type="checkbox"/>	RBCCALC	LARGE			#LARGE	
<input type="checkbox"/>	RBCSD1	12			51	
<input type="checkbox"/>	RBCSD2	10			54	
<input type="checkbox"/>	RBCAVE	11			52.5	
<input type="checkbox"/>	RBCDIL	1			1	
<input type="checkbox"/>	RBCSQ	4			9	

**Manual**

Sel	Test Code	Result	Comment
<input type="checkbox"/>	COMNT	CSF TUBE 4	
<input type="checkbox"/>	FNEUT	83	
<input type="checkbox"/>	FLYMP	9	
<input type="checkbox"/>	FMESO	0	
<input type="checkbox"/>	FMONO	8	
<input type="checkbox"/>	FOTHER	0	
<input type="checkbox"/>	FEOSI	0	
<input type="checkbox"/>	FBASO	0	

**Flags**

No Flags to report for any Run

**Images for Run 1**

SEWDF

SEWNR

RETIC

PLT-F

RBC

PLT



When the fields are filled click [**SAVE**]. This will automatically calculate the RBCBFM based on the data provided.

### RESULT VALIDATION

#### Selection Criteria

From Receipt Date = 04/24/2020  
 Discipline = HEMA  
 By Profile = ALL TYPES

#### Patient Demographics

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 MRN: Z7000007138  
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 Sample Loc: GXN903-XN-000001-01

#### OP Alerts

Run	Description
1	RBCBF Linearity: Perform slide review or cytospin

#### Samples

220120000036A

Result Validation		Rerun	Manual Differential	Morphology	Previous Results	View Critical Calls	OP Alerts
<b>Instrument</b>		<b>Manual</b>					
Instr: GXN903 B		Instr:		Prev Date: 04/29/20 12:04:00		Count 1: 100 Count 2:	
Sel	Test Code	Result	Comment	Run 1	Prev Res	Prev Com	
<input type="checkbox"/>	TCBF	10301			314		
<input type="checkbox"/>	RBCBF	not measured			1000		
<input type="checkbox"/>	RBCBFM	28			58		
<input type="checkbox"/>	BFVOL	3.8					
<input type="checkbox"/>	APPBF	Hazy			#HZ		
<input type="checkbox"/>	COLRBF	Colorless					
<input type="checkbox"/>	XANTHR	No					
<input type="checkbox"/>	RBCCALC	LARGE			#LARGE		
<input type="checkbox"/>	RBCSD1	12			51		
<input type="checkbox"/>	RBCSD2	10			54		
<input type="checkbox"/>	RBCAVE	11			52.5		
<input type="checkbox"/>	RBCDIL	1			1		
<input type="checkbox"/>	RBCSQ	4			9		

#### Flags

No Flags to report for any Run

#### Images for Run 1

SEWDF

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# QUESTIONS?

