

Caresphere™ Workflow Solution (WS)

# Caresphere WS

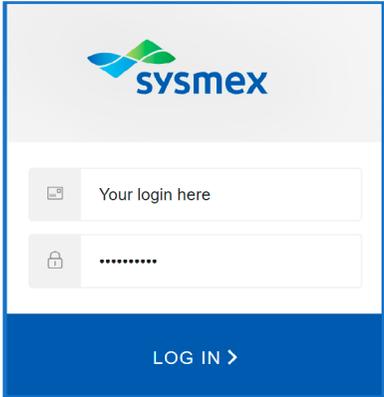
## Quick Guide



# Log In & Select Site

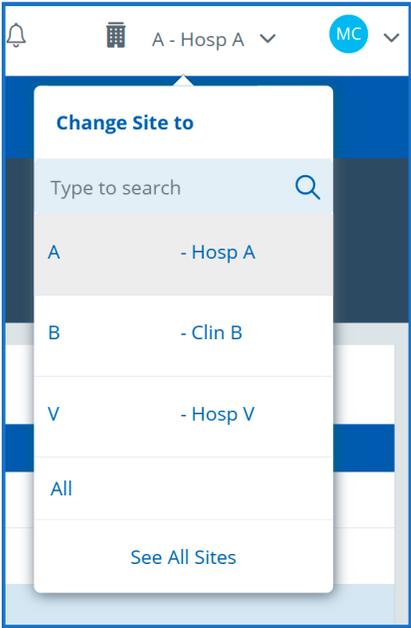
## Log in

1. Launch your web browser.
2. Open the URL for your laboratory's Caresphere WS tenant.
3. Enter your e-mail address and password, then click [LOG IN >].  
**NOTES:**
  - Your Caresphere WS log in typically matches your network ID and password.
    - If you are experiencing issues, please contact your IT helpdesk.
  - This information may be automatically filled in with the user information for the person logged into your workstation.
4. The Homepage appears.



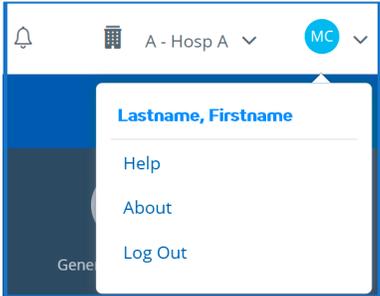
## Change Site

1. Click the site selector drop-down menu.
2. Click the site name you wish to access.
3. If the site is not listed, click [See All Sites] and then select the site you wish to use access.
4. Click [OK].



## Log Out

1. Click the user profile in the upper right-hand corner of the application.
2. Click Log Out.
3. Close the web browser.



# Homepage

## Top Menu

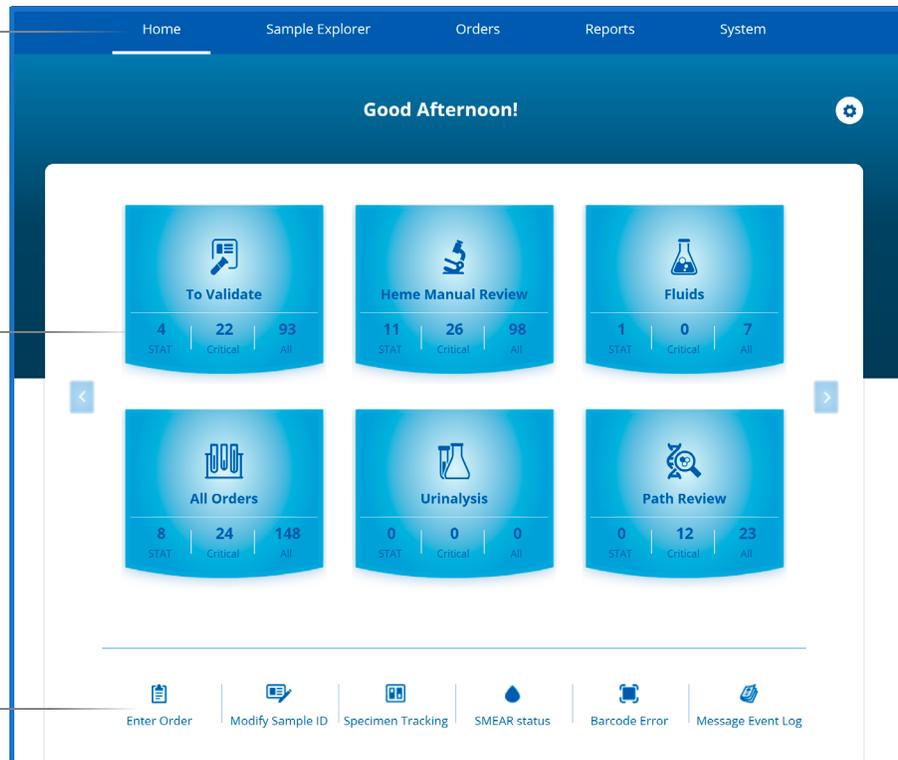
- Five main areas in the software.
- User access level defined.
- Displays on all function screens.

## Main Menu

- Workflow panels automatically filter pending work.
- Selection of a panel accesses Result Validation.
- These can be customized as needed.

## Footer Menu

- Common functions not related to Result Validation.



## Result Validation Panels

Each panel contains three numbers.

- **STAT:** Number of samples in this workflow that are ordered STAT.
- **Critical:** Number of samples in this workflow that have critical results.
- **All:** Total number of samples filtered into this workflow.



## Sample Explorer and Result Validation

The panels will be configured to filter samples to match your laboratory's workflows. Click on the panel corresponding to the validation duties you are performing. These samples will be listed in order of receipt with STATs first, then critical results which will be followed by the remainder of the samples.

# Result Validation Screen

Log in

## Comments

Comments (Report & Internal) can be added to the sample.

## Scattergrams & Histograms

Scattergram and Histogram images from the analyzer are displayed.

Test	Result	Comment	Rerun	Prev Res	Prev Com
<input type="checkbox"/> WBC	5.88				
<input type="checkbox"/> NRBC Auto %	0.1				
<input type="checkbox"/> NRBC Auto #	0.59				
<input type="checkbox"/> RBC	4.82	...			
<input type="checkbox"/> HGB	6.9				
<input type="checkbox"/> HCT	45.4	...			
<input type="checkbox"/> MCV	94.0				
<input type="checkbox"/> MCH	30.0				
<input type="checkbox"/> MCHC	33.2				
<input type="checkbox"/> RDW-CV	13.0				
<input type="checkbox"/> RDW-SD	44.7				
<input type="checkbox"/> PLT	224	...			
<input type="checkbox"/> MPV	12.4				
<input type="checkbox"/> NEUT Auto %	56.7				
<input type="checkbox"/> LYMPH Auto %	34.5				
<input type="checkbox"/> MONO Auto %	5.4				
<input type="checkbox"/> EOS Auto %	2.7				
<input type="checkbox"/> BASO Auto %	0.5				
<input type="checkbox"/> IG Auto %	0.2				
<input type="checkbox"/> NEUT Auto #	3.33				
<input type="checkbox"/> LYMPH Auto #	2.03				
<input type="checkbox"/> MONO Auto #	0.32				

## Analyzer Flags

Displays the abnormal and suspect flags from the analyzer.

## Instrument Results Display

Analyzer results display in this section.

## Manual Results Area

Manually entered or CellaVision results display here. (Diff, Morph, and Fluid Counts)

## Operator Alerts

Your specific operating procedures for this sample. Customizable messages.

## Sample List

Contains all samples in this workflow.

# Sample ID List

## Sample ID (SID) List Order of Display

STAT	
Critical and Time Limit	
Critical	
Time Limit	
STAT only	
Registered and Unregistered	
Critical and Time Limit	
Registered	
	Unregistered
Critical	
Registered	
	Unregistered
Time Limit	
Registered	
	Unregistered
Registered only	
Unregistered only	

### Time Limit

Yellow box

### STAT

Red background with white letters

### Critical

Bold red C

### Record Lock

Lock icon

### Registered

White background, no highlighting

### Unregistered

White letters, blue background

Sample ID List		
36 items		
C	S12345678901	🔒
C	S12345678902	🔒
	S12345678903	🔒
	S12345678904	🔒
C	S12345678537	
C	S12345678321	🔒
	S12345678321	🔒
	S12345678321	🔒
	S12345678537	
	S12345678541	

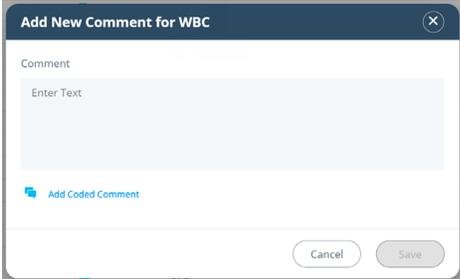
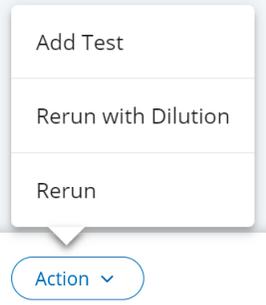
## Sample Age

Within each of the above groups, samples are arranged with the oldest sample at the top per the collection date and time.

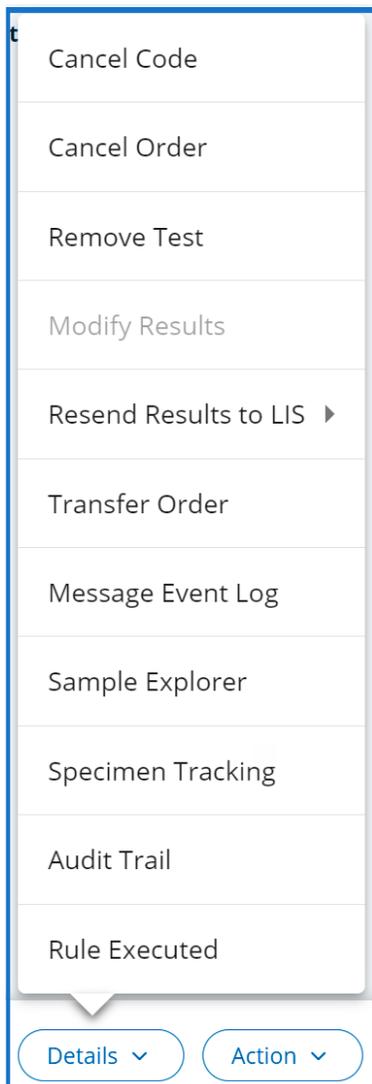
When the collection date and time are not available, the receipt date and time are used.

# Result Validation Workflow

## Result Validation screen workflow with the sample list

	1. Select the sample ID from the sample list.
	2. Review the OP Alerts and follow instructions.
	3. If indicated, select a run from the Rerun module by clicking the arrows.
	4. If indicated, click on a result line to modify a result, or click on the ellipse to add a coded result.
	5. If indicated, add a comment by clicking the comment icon in the result line of the test code.
	6. To add a test, or order a rerun, use the Actions menu. <b>Action drop-down:</b> <ul style="list-style-type: none"> <li>• <b>Add Test</b> allows the user to add test profiles to an existing order.</li> <li>• <b>Rerun with Dilution</b> enables user to order a rerun and specify the dilution factor.</li> <li>• <b>Rerun</b> allows the user to rerun selected tests (all tests will be rerun if no tests are selected).</li> </ul>
	7. Click [Save].
	8. Click a validation action. <b>Validation actions:</b> <ul style="list-style-type: none"> <li>• <b>Validate CBC</b> validates the hemogram and leaves the automated differential pending for slide review.</li> <li>• <b>Validate All</b> validates all resulted test codes.</li> <li>• <b>Validate Sel</b> provides the option to select individual tests to validate using the checkboxes to the left of the test codes.</li> </ul>
	9. Continue through the sample list.

# More Order, Sample, and Result Options



## Details drop-down

NOTE: Options available are based on user profile

**Cancel Code** allows for each parameter to be resulted with a specific comment and sent to the LIS.

**Cancel Order** cancels the entire sample ID and adds the cancel test code. No results sent to LIS.

**Remove Test** allows for removal of selected test(s) from the order.

**Modify Results** allows for validated results to be modified and sent to the LIS.  
NOTE: Not all LIS are able to receive modified results from Caresphere WS.

**Resend Results to LIS** re-transmits results to the LIS.

NOTE: The Force Results option will transmit "#FORCE" as the result for any pending test codes on the sample.

**Transfer Order** allows the order to be transferred to another site location within Caresphere WS. Updated location is not transmitted to the LIS.

**Message Event Log** opens the Message Event Log from the System Monitoring page for the selected sample ID.

**Sample Explorer** opens a new browser tab with the Sample Explorer screen for the current sample.

**Specimen Tracking** provides locations and timestamps for all barcode scans within the system.

**Audit Trail** logs and displays all actions and results.

**Rules Executed** displays the rules that have triggered for the sample.

## Mark a sample for manual review

1. Place a mark in the Manual review checkbox.



2. Click [Save].



The entire sample ID will be removed from the To Validate workflow and will be present in the Manual Review workflow.



# Reruns

## Selecting which set of results to report

1. When a rerun is ordered manually or through the user-defined rules, the test results and associated information are moved into the RUN # field of the rerun screen.

Test	Result	Comment	Rerun ⇌
WBC	1.78	...	1.99

2. Click the Rerun hyperlink on the Results Validation screen to open the Rerun table.

**Rerun** ⇌

3. Select all the tests by clicking on the select all checkbox, or select specific tests by using the individual check boxes.

**NOTE:** The empty box in the column header will select all the tests in that run.

RUN 1 Analyzer ID: XN902			RUN 2 Analyzer ID:		
<input type="checkbox"/>	Data Mark	Result	<input checked="" type="checkbox"/>	Data Mark	Result
<input type="checkbox"/>		1.99	<input checked="" type="checkbox"/>		1.78

4. Click OK to save and return to the Result Validation screen.

# Manual Differential

## Counting cells under the microscope

1. Click [Diff] under the Manual panel in the Result Validation screen.



2. MDIFF is the default counter. Manually change to the appropriate counter for use with a body fluid or CSF differential as needed.



3. Perform manual differential by selecting the appropriate key for each respective cell type.

- When count limit is reached, the counting stops. No additional cells are added.
- The count limit default is 100 cells. If you need to count more than 100 cells edit this number before beginning to count.

Count Limit:

- If you stop counting before the count limit is reached, you will be alerted that less than the count limit number have been counted. If accepted, the results will be normalized and rounded correctly for the total number of cells counted.
- In the event of a cell being misclassified, move the slider to [Subtract]. Remove the cell by selecting the respective key. When finished removing cell, move the slider back to [Add] and continue enumerating cell types.

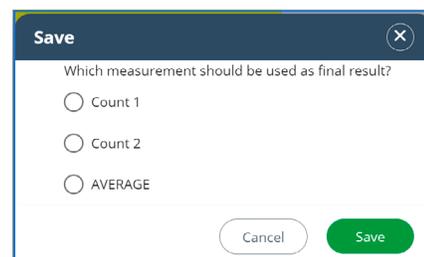
Test	Key
NEUT% M	a
LYMPH% M	s
MONO% M	1
EOS% M	6
BASO% M	5
BAND% M	.
META% M	4
MYELO% M	9
PROMY% M	8
BLAST% M	7
ATYP LY% M	+
PLASMA% M	-
OTHER% M	/
NRBC% M	0
Reactive Lymphocytes	P



4. Click [Save].
5. After completion, review the Result Validation screen for any Operator Alerts related to manual differential and absolute counts.

### Performing a second count

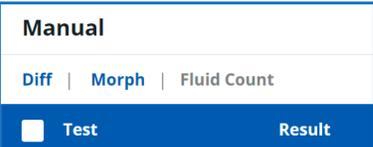
- Additional counts can be completed by moving the slider to [Count 2].
- After completion, click [Save] and determine which results will be reported (Count 1, Count 2 or Average).



# Morphology

## Reporting and grading of abnormal red blood cell morphology

1. Click Morph under the Manual panel in the Result Validation screen.



2. MORPH is the default counter. Use the dropdown to select morphology for other morphology options.

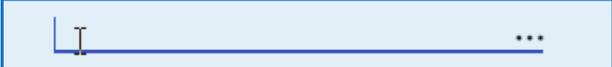


3. Grade morphology using one of two methods:

a. Click the ellipsis to display a pop-up window with coded results.



b. Click in the blank space to display a cursor and type the code manually. Enter your password and click Log in.



- 4. Repeat for additional morphologies.
- 5. Click [Save].
- 6. After completion, review the Result Validation screen for any Operator Alerts related to morphology and perform final review of results.

OP Alerts	7 Items
<b>Blast(s) Present (Blasts% M &gt;0) -</b> Send for Path Review.	2
<b>Schistocytes 3+ -</b> Send for Path Review.	2
<b>Parasites Present -</b> Send for Path Review.	2

# Previous Results

## Viewing previous results for a specific Medical Record Number (MRN)

1. If previous results are present for a sample ID, the most recent set of previous results will be displayed on the Result Validation screen.
2. Click the Prev Res hyperlink to open the Previous Results popup.



3. The list is sorted in reverse chronological order. The most recent previous result is considered as Prev Res 1.
4. The sample ID is displayed as a hyperlink if any test code result for the sample has a Critical. If the hyperlink is clicked, user will be navigated to the Result Validation screen for that sample.

<input type="checkbox"/>	Test	Result	Comment	Rerun	Prev Res	Prev Com
<input type="checkbox"/>	WBC	5.88	3	5.88	5.88	3
<input type="checkbox"/>	NRBC Auto %	4.0				
<input type="checkbox"/>	NRBC Auto #	5.30				

Previous Results			
Sample ID	MRN	Name	DOB
9966890332	MR281159	TEST, CRINLBCRITICAL3	07/20/
	Current	Prev Res 1	
Sample ID	9966890332	9966281159	
Collection d/t	07/22/2023 14:04:41	07/21/2023 14:04:41	
WBC	1.49	1.99	
NRBC Auto %	0.1	0.1	
NRBC Auto #	0.59	0.59	

# Fluid Count

## Counting Total Nucleated Cells (TNC) and Red Blood Cells (RBC) in body fluids under the microscope

1. Click [Fluid Count] under the Manual panel in the Result Validation screen.
2. Select [Side 1] or [Side 2], depending on which side of the hemocytometer you are counting.
3. Start counting TNC and RBC by selecting the appropriate key for each respective cell type.
  - In the event of a cell being misclassified, select [Subtract]. Remove the cell by selecting the respective key. When finished removing cell, select [Add] and continue enumerating cell types.

4. On the left side, complete the following:
  - Average Number of Squares Counted for TNC entered as an AVERAGE when counting both sides of the Hemocytometer
    - Ex: If 18 large squares are counted across both sides of the Hemocytometer the entry would be 9.
  - Average number of Squares Counted for RBC.
    - Ex: If 50 small squares are counted across both sides of the Hemocytometer the entry would be 25.

TNC Squares Counted:	9
TNC Dilution Factor:	1
RBC Squares Counted:	9
RBC Dilution Factor:	1
RBC Calculation:	Large Sq
<input type="button" value="Add"/> <input type="button" value="Subtract"/> <input checked="" type="button" value="Side 1"/> <input type="button" value="Side 2"/>	

NOTE: Same number of squares should be counted on each side.

5. Click the [Calculate] button on the bottom right side of the screen to calculate the following results based on pre-defined calculation formulas:
  - The TNC Average of Sides, TNC Manual Count, TNC Difference of Sides.
  - The RBC Average of Sides, RBC Manual Count, RBC Difference of Sides.

6. Click the [Save] button to save the results to the Result Validation screen.
7. After completion, review the Result Validation screen for any Operator Alerts related to manual counts.
8. If needed, perform a fluid differential by selecting [Diff] from the manual area of the Result Validation screen.

**Manual**

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Diff | Morph | Fluid Count

# Smear Status

Check whether slides have been made and stained

1. Select [SMEAR status] icon from the bottom of the Homepage Dashboard.



2. Select [Result Type Show Latest], or [Show All].
3. Select one or more filters if needed:
  - Sample ID
  - Smear Status
4. Click [Apply].
5. Review the status of the smear.

Yellow	In Process
White	Pending
Green	Completed
Blue	M-Complete
Red	Error

Filter Criteria	Result Type	Sample ID	Smear Status	Clear	Apply		
	<input type="radio"/> Show Latest <input checked="" type="radio"/> Show All	Enter Text	Select Value				
<input type="button" value="Manually Complete"/> <input type="button" value="Export"/> <input type="button" value="Print"/>							
Sample ID	Collection d/t	SP Query d/t	Instrument ID	Rack ID	Position	SMEAR Status	Status Update
<input type="checkbox"/> 9953970614	07/21/2023 10:29:31					PENDING	12/27/2023 14:36:32
<input type="checkbox"/> OD201101	11/20/2023 15:42:25	11/20/2023 02:43:56	SP102011	000001	01	IN-PROCESS	11/20/2023 02:43:57
<input type="checkbox"/> 5514	03/31/2021 14:05:38	03/31/2021 14:43:55	SP10	200033	01	ERROR	03/31/2021 14:45:16
<input type="checkbox"/> OD280605	06/28/2023 14:57:01	06/28/2023 03:21:27	SP1028JUN	000001	01	COMPLETED	06/28/2023 03:21:28
<input type="checkbox"/> 9973846620	07/26/2022 07:17:28					M-COMPLETED	06/28/2023 16:34:30

If you completed the SMEAR manually (without slide maker/stainer)

1. On SMEAR Status screen, select one record with status as In-Process / Pending / Error by marking checkbox in Sel column.
2. Click on the Manually Complete button.
  - The system changes SMEAR status to M-Completed.

	Sample ID	Collection d/t
<input checked="" type="checkbox"/>	9953970614	07/21/2023 10:29:31

# Specimen Tracking

## Finding a sample in your laboratory

Specimen Tracking records the location of a sample each time the barcode is read at a Sysmex analyzer. Specimen Tracking is used to search, filter, and print all locations of a specimen. You can search by Sample ID, date/time range, rack ID, and instrument ID and sort the information for printing.

1. Select [Specimen Tracking] icon from the Homepage Dashboard.



2. Enter a sample ID.

NOTE: Once three characters are entered, a dynamic search is performed. Continue entering characters until the sample ID can be selected from the list.

3. Click [Apply].
4. Review the Sample ID tracking history.

The screenshot shows the Specimen Tracking interface with the following data:

Sample ID	MRN	Name	Instrument ID	Rack ID	Position	Tray	Comment	Created d/t
<input type="checkbox"/>	OD280605		SP1028JUN	000001	01	SP10		06/28/2023 03:21:27
<input type="checkbox"/>	OD280605		XN28JUN	1	1	XN		06/28/2023 03:21:25
<input type="checkbox"/>	OD280605		CT9028JUN	1	01	BT		06/28/2023 03:21:14
<input type="checkbox"/>	OD280605		CT9028JUN	1	01	BT		06/28/2023 03:21:10
<input type="checkbox"/>	OD280605							06/28/2023 03:21:02

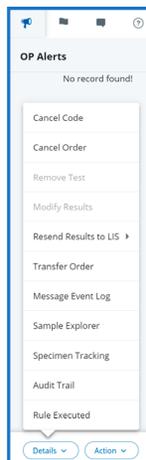
- Columns are able to be sorted by clicking on the header.



- The list can be printed.



Specimen Tracking is also accessible through the Result Validation screen via the Details menu.



# Sample Explorer & Barcode Errors

## Sample Explorer

The Sample Explorer screen allows users to perform specific searches based on all available criteria.

1. Enter the search criteria.

The screenshot shows the 'Sample Explorer' search criteria form. It includes fields for Sample ID, Instrument ID, MRN, Name, Collection d/t From, and Collection d/t To. There are also fields for Location, Profile, Discipline, Receipt d/t From, and Receipt d/t To. The form has 'Clear' and 'Apply' buttons and radio buttons for 'In-process', 'All Pending', 'Completed', and 'All'.

## Barcode Error Management

Barcode read errors should be handled according to your laboratory operating procedures. The Barcode Error screen can help you identify the analyzer, rack, and tube location of the sample.

1. Select the Barcode Error icon from the footer menu on the homepage.
  - The past 24 hours is the default search criteria.



2. Click [Apply].

NOTE: Configured in General Parameters. Check with your System Administrator.

The screenshot shows the 'Barcode Error' management screen. It includes a 'Filter Criteria' section with fields for Instrument ID, Created d/t From, and Created d/t To. There are 'Clear', 'Apply', 'Export', and 'Print' buttons. Below the filter section is a table with the following data:

Barcode	Site	Instrument ID	Rack ID	Position	Created d/t
ERR01001230001	H	HIN201	1	1	04/10/2020 12:25:07

## Offline Mode

If you are in a downtime, follow your laboratory's downtime procedures. Refer to the Caresphere Workflow Solutions User Manual for Offline Mode operation.

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