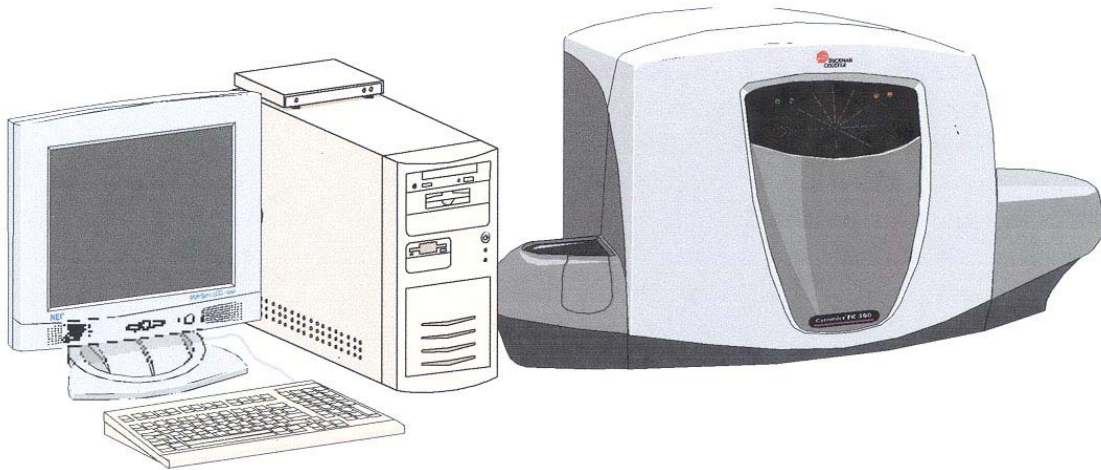


# Cytomics FC 500 Quick Reference



PN 722238 RevA (April 2005)  
Beckman Coulter Inc.  
Miami Education Center  
Miami Lakes,



# WARNINGS AND PRECAUTIONS

READ ALL PRODUCT MANUALS AND CONSULT WITH BECKMAN COULTER-TRAINED PERSONNEL BEFORE ATTEMPTING TO OPERATE INSTRUMENT. DO NOT ATTEMPT TO PERFORM ANY PROCEDURE BEFORE CAREFULLY READING ALL INSTRUCTIONS. ALWAYS FOLLOW PRODUCT LABELING AND MANUFACTURER'S RECOMMENDATIONS. IF IN DOUBT AS TO HOW TO PROCEED IN ANY SITUATION, CONTACT YOUR BECKMAN COULTER REPRESENTATIVE.

## HAZARDS AND OPERATIONAL PRECAUTIONS AND LIMITATIONS

WARNINGS, CAUTIONS and IMPORTANTS alert you as follows:

WARNING	–	Can cause injury.
CAUTION	–	Can cause damage to the instrument.
IMPORTANT	–	Can cause misleading results.

BECKMAN COULTER, INC. URGES ITS CUSTOMERS TO COMPLY WITH ALL NATIONAL HEALTH AND SAFETY STANDARDS SUCH AS THE USE OF BARRIER PROTECTION. THIS MAY INCLUDE, BUT IT IS NOT LIMITED TO, PROTECTIVE EYEWEAR, GLOVES, AND SUITABLE LABORATORY ATTIRE WHEN OPERATING OR MAINTAINING THIS OR ANY OTHER AUTOMATED LABORATORY ANALYZER.

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### **WARNING** Risk of operator injury if:

- All doors, covers and panels are not closed and secured in place prior to and during instrument operation.
- The integrity of safety interlocks and sensors is compromised.
- Instrument alarms and error messages are not acknowledged and acted upon.
- You contact moving parts.
- You mishandle broken parts.
- Doors, covers and panels are not opened, closed, removed and/or replaced with care.
- Improper tools are used for troubleshooting.

To avoid injury:

- Keep doors, covers, and panels closed and secured in place while the instrument is in use.
  - Take full advantage of the safety features of the instrument. Do not defeat safety interlocks and sensors.
  - Acknowledge and act upon instrument alarms and error messages.
  - Keep away from moving parts.
  - Report any broken parts to your Beckman Coulter Representative.
  - Open/remove and close/replace doors, covers and panels with care.
  - Use the proper tools for troubleshooting.
- 

### **CAUTION** System integrity might be compromised and operational failures might occur if:

- This equipment is used in a manner other than specified. Operate the instrument as instructed in the Product Manuals.
  - You introduce software that is not authorized by Beckman Coulter into your computer. Only operate your system's computer with software authorized by Beckman Coulter.
  - You install software that is not an original copyrighted version. Only use software that is an original copyrighted version to prevent virus contamination.
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### **IMPORTANT**

If you purchased this product from anyone other than Beckman Coulter or an authorized Beckman Coulter distributor, and, if it is not presently under a Beckman Coulter service maintenance agreement, Beckman Coulter cannot guarantee that the product is fitted with the most current mandatory engineering revisions or that you will receive the most current information bulletins concerning the product. If you purchased this product from a third party and would like further information concerning this topic, call your Beckman Coulter Representative.

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## **Purpose:**

The purpose of this Quick Reference is to provide a simple step by step outline of the information needed to perform various tasks on the system. We begin with basic tasks like starting up or shutting down the system and then proceed to more involved software tasks. It is organized according to the modules in the Cytomics FC 500 Flow Cytometer Training Modules. Major Headings (in blue) are the major groups of tasks. These headings may be further subdivided into subsections of the major task and appear in a logical sequence. For example, the Major task of creating a protocol is subdivided into the subsections: Select Parameters, Create Plots, Instrument Settings, Create Regions, Gate, Analyze, and Save Protocol. A list of the major tasks appears below in the Table of Contents. The Index on the last page also can be used to help locate a specific task or subtask.

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# FC 500 MCL Quick Reference

## Startups

Fill the Sheath tank and Empty the Waste tank  
 Power the Computer and Monitor On  
 Enter a Windows password if any and select **OK**  
 Empty the vacuum trap of any water



Double click **CXP Cytometer** if acquiring or **CXP Analysis** if only analyzing listmode files

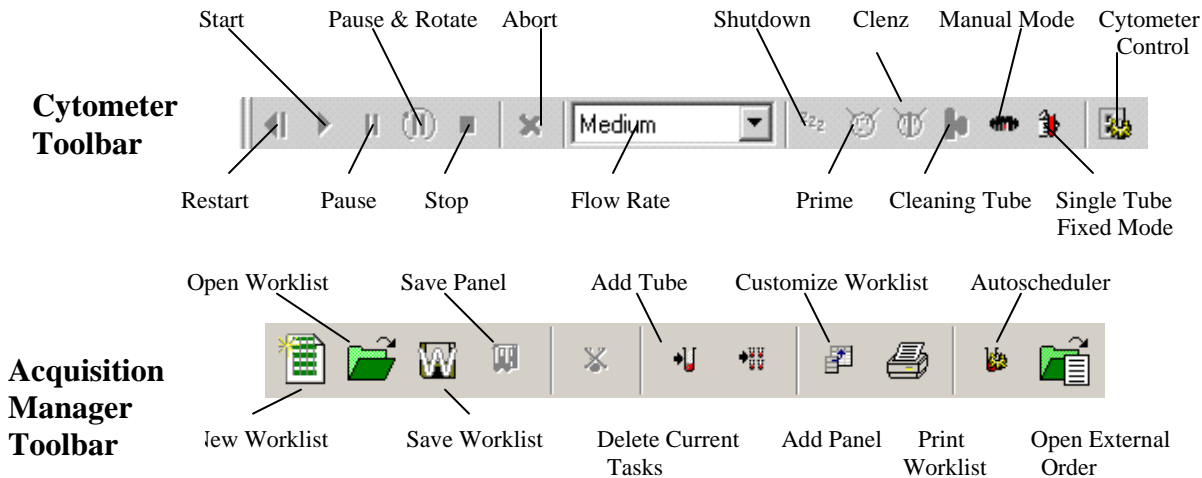
Select User name

Enter User password and select **Next**

Select desired protocol (if you desire to launch it now) and then **Finish** (or just **Finish**)


Check gages System Pressure 30 Psi, Vac 17 in (Cytometer only)


### Commonly Used Toolbars:



## Shutdown

Place 2 ml of 10 % bleach solution in one tube  
 Place 2 ml of de-ionized water in each of 3 tubes

Select  on the toolbar to clear the Acq. Mgr.

Select the  tab on the Resource Explorer  
 Select the Common Folder


Select the **cleanse.pnl** and drag and drop it to the Acq. Mgr.  
 Enter a carousel number


Select  button

Select **Yes** if you wish to save the previous protocol or **No** if not  
 When the panel is finished, remove all tubes  
 Fill Vacuum tubes with 5 mls de-ionized water and place in  
 carousel position 1 and 2

Select  Standby mode

Select  Cleaning Tube


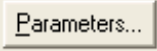
When finished select  in the upper right to exit the software  
 Select **No**



Select  to turn off the cytometer




Select **Start** > **Shutdown** > **OK** to shutdown the computer

## Creating a Protocol


Select **File > New > New Protocol** to clear the workspace of all but one dotplot  
Select **Yes** to save old protocol or **No** if you do not wish to save it

Select Parameters: Select  Cytometer Control on the toolbars  
Select Acq. Setup tab  
Set Duration value and Max events to stop accumulation later  
Select  button  
Deselect unwanted parameters  
Select any desired parameters  
Optional: Set Auxiliary Parameters, Ratio, Time and Derived Parameters  
Select **OK**  
Enter a name and select **Save**

Create Plots: Dot Plots (2 parameter) – Select , Histogram Plot (Single parameter)– Select  Optional: **Plots > Density Plot**  
Select Parameter(s) and then **OK**  
Repeat for each plot  
Select each plot Focus (top of the plot) in turn and drag the plot to the desired location on the Workspace  
Press **CTRL T**, select plot size, and then **OK** to arrange plots

Instrument Settings: Select  Single Tube Mode on the toolbar  
Place a sample for the application in position 10 on the carousel  
Select  Run  
Select  Cytometer Control and then the Acq. Setup tab


Select **Setup Mode** and **QuickSET**  
Adjust Discriminator to exclude debris and noise but pass cells  
Adjust the slider bars (top and side of each plot) beginning with those to be used as gates for a correct pattern  
Select Acq. Setup tab  
If needed, select **QuickCOMP** and adjust the compensation using A proper sample until X Means match (regions 1 and 3) and Y means match (regions 2 and 4) within .1  
Deselect **Setup Mode**, **QuickSET**, and **QuickCOMP**  
Allow the system to collect the desired amount of data

Select  to stop or allow the system to reach a stop value


## Create Regions

Select each plot in turn and add regions:


**Dot Plots** (2 Parameter Plots only):

*Polygon* - select 

Move the cursor to starting point on plot and left click  
Use a click move technique to create all the sides  
back to the starting point

*Rectangle* – select 

Move the cursor to the starting point and left click  
to establish one corner of the rectangle  
Move the cursor to the opposite corner and left  
Click to complete the rectangle


*Quadrant* – Select 

Move the cursor to plot and left click  
Move the region to desired position and left click  
to anchor it


*Autogate* – Select  ellipse or  contour


Move the cursor to desired population and left click

## Histogram Plots:

*Linear* – Select 

Move the cursor to starting position and left click  
Move the cursor to ending position and left click

*Multilinear* – Select 

Move the cursor to first position and left click  
Move the cursor to end of first region and left click  
Move the cursor to end of second region and left click  
Continue until all regions have been created  
Move cursor to  and left click to finish

## Gate

Move the cursor to lower right corner of plot to be gated

When  appears, left click and select Gate

If you wish to apply the gate to all plots select that option

(Note: later ungate the plot containing the gate region)

Optional: Stop Count – select Stop and Save tab and enter count

Select **OK**

## Analyze

Select **Analysis** > Select **Results**

Deselect all unwanted statistics and select all desired statistics










Select **OK**

## Save Protocol

Select **File** > **Save Protocol** or Select 




## Create a FlowPAGE

- Select **Insert > Blank Flow Page**  
Move the new page to a convenient area of the screen
- Add Plots            Move the cursor to the center of a plot  
Left click and drag and drop it onto the FlowPAGE  
Repeat for each plot
- Arrange Plots        Select the  Maximize Window icon in the upper right corner of the FlowPAGE to expand the page to full screen  
Move each plot and move into position  
OR  
Create a large rectangle completely encircling two plots and stats  
Select the appropriate alignment tool (  top,  bottom,  left or  right)
- Add Text            Select  on the FlowPAGE toolbar  
Move the cursor to the desired location on the page and left click  
Type in desired text and select **OK**  
Reshape the text box by grabbing a handle and pulling outward  
Right click in the box and select Properties to change font, fill, etc.  
Left click on another part of the page to finish
- Add Images          Select  on the FlowPAGE toolbar  
Locate the directory where the image is stored  
Select the desired image and then **Open**  
Move the cursor to the desired location on the page and left click  
Use the handles to resize the image  
Left click on another part of the page to finish
- Add Lines or Boxes    Select  or   
Move to the starting point  
Hold the left button and drag to the ending point
- Save FlowPAGE        Select **FlowPAGE > Save FlowPAGE As**  
Enter a name and select **Save**

## AutoSetup

Note: To enter a new application, you will need a base protocol and target channels for Flow-Set

- New Application      Select **Tools > AutoSetup Application Definition**  
Select Create a new application definition  
Select Current user only or All users as desired  
Select **Next**  
Browse to find the base protocol that best represents your final protocol  
Select the base protocol and then **Open**  
Select **Next**  
Select Filter Block and then **Next**  
Select Forward Scatter Collection Angle and then **Next**  
Optional: select dyes  
Select **Next**  
Enter the correct Flow-Set product and target channels  
Select **Next**  
Enter an application name and select **Next**  
Select Create a verification protocol based upon the compensation Combinations if you wish the system to generate a verification protocol
- Or
- Select Add additional verifier, locate the protocol, and select Open to add a verification protocol  
Select **Next**  
The system summarizes your entries  
Select **Print** if you wish and then **Finish**  
The system now creates all protocols and FlowPAGES needed for Autostandardization
- Schedule an Application      Select **Tools > AutoSetup Scheduler**  
Select desired application  
Or  
Hold the **CTRL** key down and select multiple applications  
Enter a carousel number and select **Schedule**  
Select **Run** if you wish to run immediately  
Or  
Select **Close** to prep tubes, place them on the system, or enter A calibration factor in the Acquisition Manager
- Select  on the toolbar to run the samples

## Acquisition Manager

If it is not visible, select **View** (or right click) >  
Select **Acquisition Manager**

### Select Columns


Select **View > Customize Worklist Columns**  
Select the desired columns to appear and then **OK**


### Edit Column Names

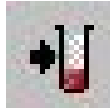
Select **View > Customize Worklist Columns**  
Left click on the column name until the name can be changed  
Type in the new name and press **Enter**  
When finished, select **OK**

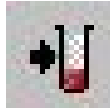
### Create a Panel



Select  to clear the Acquisition Manager

Select  protocol tab on the Resource Explorer  
Drag and drop the desired first protocol to the Acquisition Manager



Select the  on the toolbar to add the desired number of tubes to the panel


If you wish to change the protocol in any of the tubes, select the




 Open Protocol in the Protocol column for that tube


Select the desired protocol and then **Open**

Repeat as necessary for each tube

Under Regions column, the first tube should be set to  to use the regions in that protocol (they will be set with the first tube)

The other tubes should be changed to  to carry the region to the other tubes



Under the Cytosettings column first tube, select the  Open Protocol


Locate the cytosettings protocol from which to obtain the settings (e.g. 2 Color Settings, AS Tetra Settings, etc.)

Select **Open**


Edit the Parameter names for each tube to reflect the actual Measurements (e.g. CD3, CD4, etc.)


To Delete a Protocol Select the protocol line by its number and press **Delete**

To Move a Protocol Select the protocol line and drag and drop to the new position

Save Panel Right click on Panel folder  or panel area  
Enter a panel name  
If you desire to create a template in the database for reporting  
Results, select Export results of panel to Report Generator  
Select **Save**




Create a Worklist Select  Clear Worklist to clear the Acquisition Manager then:

To Add Panels Select  Panels tab on the Resource Explorer  
Locate the desired panel and drag and drop it to the Acquisition Manager  
Repeat as desired

To Add Protocols Select  Protocols tab on the Resource Explorer  
Locate the desired protocol and drag and drop it to the Acquisition Manager  
Repeat as desired









Editing Select the desired box in a column (e.g. Under P1, P2, etc)  
Type in the desired information (e.g. Sample ID, Parameter name, etc.)

Save Worklist Select  Save Worklist on the toolbars  
Enter a worklist name and select **Save**






To Run Select  to clear Acquisition Manager  
Select  Worklist tab on Resource Explorer  
Locate the desired worklist and drag and drop it to the Acquisition Manager  
Edit the boxes as desired  
  
To add Cal Factor, click on  in the Cal Factor column of the Acquisition Manager  
Enter absolute count calibration value, verify Enabled has been selected, and select **OK**  
Enter a carousel number in tube one position

Select  Run

## Retrieve and Analyze Data



Retrieve with Runtime Protocol (protocol used To collect the data)	Select  Listmode tab on the Resource Explorer Locate the desired listmode file Drag and drop the file to the Workspace If asked do you wish to clear acquisition data, answer <b>Yes</b> Save previous protocol as desired The protocol appears and the data shortly after
Retrieve with a Different Protocol	Select  Protocols tab on the Resource Explorer Locate the desired protocol Drag and drop it the Workspace If asked do you wish to clear acquisition data, answer <b>Yes</b> Save previous protocol as desired  Select  Listmode tab on the Resource Explorer Locate the desired listmode Drag and drop it to any one of the plots on the Workspace The protocol will populate with the data
Retrieve Multiple Listmode Files with Runtime Protocols	Select <b>Tools &gt; Listmode Playback</b>  Right click on  Add Protocol tool in the window Select New Worklist  Select  Add Protocol tool once for each addition protocol  Under the LMD File column, select  Open File icon Select the desired listmode file and then <b>Open</b> Repeat for all listmode files Select the Options tab and other desired options Select the Single File Mode tab  Select the  Run tool in the window The files are displayed
Files with Different Protocols	Same as previous action but with one addition:  Select the  Open Protocol icon under the Protocol column Select the desired protocol and then <b>Open</b> Repeat for each protocol


Retrieve Multiple Listmode [CXP Analysis Software Only]  
Files into one Protocol


Create Protocol	<p>Drag and drop the desired single file protocol to the Workspace Select each plot in turn and then <b>CTRL D</b> Repeat process for each additional listmode files to be Displayed (e.g. 3 files – 3 sets, 4 files – 4 sets etc.) Roughly arrange the plots in rows on the screen Press <b>CTRL T</b>, select plot size, and then <b>OK</b> Drag and drop from one plot to the duplicate to duplicate Regions on the new plot Repeat for each plot in turn Select <b>File &gt; Save Protocol As</b> Enter a name and select <b>OK</b></p>
Retrieve Files	<p>Select  Listmode tab on the Resource Explorer Select desired listmode file Drag and drop it to a top plot (all plots populate) Select a different listmode file Hold down the <b>CTRL</b> key and drag and drop it to the first duplicate plot (this plot only populates with the new file) Repeat the drag and drop process while holding down the <b>CTRL</b> key for each of the other plots in the row using the same listmode file (F2 appears on the plots) Repeat the process with a new listmode file for each of the remaining rows</p>
Save Protocol	<p>Select <b>File &gt; Save Protocol As</b> Enter a name and select <b>OK</b></p>
Batch Automator	<p>Select <b>Tools &gt; AutoMATOR Setup</b> To remove old selected files from the list: Select the files and then the Remove Files button Select <b>Add Files</b> Select the desired files and then <b>Open</b> To change the order: Select a file and drag and drop it to a new position Select the desired process option next to the files (  pass,  pause 12 seconds,  stop and wait to restart) Select the desired output option</p> <p>To process: Select  Run on the Automator toolbar</p>

## Listmode Playback Tool

Select **Tools > Listmode Playback**


Select either the  Add Protocol or  Add Panel

Select  Open for the first listmode file  
Select the listmode file and then **Open**  
Repeat for each listmode file

If desired, select the  Open for each protocol in turn  
Select the desired protocol and then **Open**  
Select Options tab and desired options  
Select Single File Mode tab

Select  tool in the window  
The files are displayed


## Overlay Plot (CXP Analysis Software only)

Select  on the plots toolbar


Populating From  
Workspace

Drag and drop from the center of a histogram plot  
to the Overlay plot

Populating From  
Stored Histograms

Select the  Histogram tab on the Resource Explorer  
Select the desired histogram  
Drag and drop the file to the overlay


Populating From  
Listmode Files

Select  on the Overlay toolbar  
If some files are missing, select **More Files**  
Select the desired files using the **Shift** or **CTRL** keys  
Select the desired parameter(s) and then **OK**

Arranging Plots

Left click on a histogram within the Overlay  
Drag and drop within the overlay to a new position

Superimposing  
Overlay Plots

Select the overlay plot and then  on the Overlay toolbar

Angle Plots






Select  on the Overlay toolbar

Gallery Mode

Select  on the Overlay toolbar

Add Legend



Select  on the Overlay toolbar



Add Regions	Select  for linked regions on all plots Use the handles to stretch the regions into position Or Select  for a single region on one histogram Select the histogram within the overlay Use the handles to stretch the region into position
Add Statistics	Select  on the Overlay toolbar
Add Annotation	Select  upper right corner of overlay to maximize it Select the  on the Overlay toolbar Move the cursor to desired position and left click Change box size by dragging the handles Click until the text cursor appears Edit the text within the box Note: Add \$ to add specific dynamic values to the text (These values continually change, e.g. date, time, etc.) Select the desired information Double click outside the box to finish
Assigning a Control	Left click on the desired histogram within the overlay Right click and select <b>Set As Control</b>
Apply Translucency	Left click away from histograms to deselect them Right click and select <b>Translucency</b>
Apply Overton Mode	Left click away from all histograms to deselect them Right click and select <b>Overton Mode</b>
Apply Kolmogorov-Smirnov Mode	Left click away from all histograms to deselect them Right click and select <b>Kolmogorov-Smirnov Mode</b>
<b>Publishing</b>	
Set Preferences	Press <b>CTRL W</b> and select Publish tab Select the desired publishing option Publish to Text File Or Publish Data to MS Excel or both Select desired data format Select desired bitmap size Select desired File References option Select whether or not to switch to Excel on publish Select <b>OK</b>
Output	Select <b>Tools &gt; Publish Results Now</b> Enter name and select <b>Save</b> System opens MS Excel and displays data



## Extras

Assigning Color to Dot Plots Press **CTRL W** and select Gating tab

Color Precedence	Select <b>Automatic Color Precedence</b> Select <b>OK</b> Select  Color Precedence Setup on the toolbars Edit colors as desired Move regions using a drag drop technique Select <b>OK</b> Color will be assigned to dots based on the color located highest on Precedence list (top position)
Color Blend	Select <b>Color Blend Mode</b> Select <b>OK</b> Select  Color Blend Setup Select 3 different regions to blend Select <b>OK</b> Color will be assigned based on the number of the regions satisfied by the event
Administration Functions	When logging on, select <b>Admin</b> as the user Enter the administration password (initially it is <b>Password</b> ) Select <b>Admin</b> button, The Admin window appears
Add a User	Select <b>Add User</b> Enter a new user name and password (min 6 characters) Select desired privileges Select Paths tab if you wish to change the paths Select <b>OK</b> until you return to the Admin window
Group Users	Select <b>Workgroups</b> Select <b>Edit</b> and then <b>Add</b> Rename your workgroup as desired Select <b>OK</b> Select all users to be included in the workgroup Select <b>OK</b>
Track User Usage	Select <b>Export Log</b> Enter range of dates and select <b>Next</b> Select users to be included in the billing file Select <b>Next</b> Select to send to clipboard or file and select Delimiter Select <b>Finish</b> and then <b>Close</b>

Copy and Paste	
Copy Image	Select a plot Right click and select <b>Copy Plot Image</b>
Paste Image	Open the desired program (e.g. PowerPoint, Word, etc.) Select desired area Select <b>Edit &gt; Paste</b>
Copy Data	Select plot Right click and select <b>Copy Plot Data</b>
Paste Data	Open the desired program (e.g. MS Excel) Select desired area Select <b>Edit &gt; Paste</b>
Freeze Single Histogram Plots	Run a sample or retrieve a listmode file Choose a histogram plot to apply freeze frame Move the cursor to the lower right corner of the plot Until  appears Left click and select the Histogram tab  Select Freeze Frame and then <b>OK</b> Run another sample or retrieve another file, an outline of The previous file appears on top of the new file You can repeat the process to achieve 2 freeze frames on top of a new file
Baseline Offset	Select <b>File &gt; Workspace Preferences</b> Select Plot Display tab Select <b>Baseline Offset On</b> System adds a randomized positive Gaussian offset to the low channels bringing the negative population out from channel zero on log displays
Listmode Compensation	Select  Listmode tab on the Resource Explorer Select desired listmode file Drag and drop it to the workspace Select <b>Analysis &gt; LMD Quick COMP</b> Adjust the slider bars to change the compensation The data responds accordingly Save recompensated file (file extension will be CMP)

## DataBase

### QC Product Editor

#### Editing a Product

Select the Report Generator toolbar and then Product Editor  
Select the desired product you wish to edit  
Select the desired information field to be edited  
Make the change  
Repeat the process for each field  
When finished, select **OK**



#### Entering a New Product

Select the Report Generator toolbar and then Product Editor  
Select the New Product button  
Select the first information field  
Enter the information  
Repeat the process for each field  
When finished, select **OK**




#### Quality Control Report

##### Setting Region Properties


Sample data is sent to the database when samples are run  
And the protocol region properties are set correctly  
Drag and drop a protocol to the workspace  
Save the previous protocol or not as desired  
Select a region for statistics to be sent to the database  
Right click the mouse and select Region Properties  
Select Region statistics to be exported for Quality Control  
Enter the QC Product and select **OK**  
Repeat for each region to be used

#### Activating QC Template (one time procedure)

Select  QC Report on the Report Generator toolbar  
Change instrument to Default  
Select **Template > Select Template**  
Select desired template and then **Open**  
Select **Template > Save Template** to save the template with the system serial number  
Repeat process for each template



#### Select a Template


Select  QC Report on the Report Generator toolbar  
Select **Template > Select Template**




Select desired template and then **Open**

Select a point Left click on the point ( a red line appears)


Creating a New QC Template First, enter the new QC product (earlier in database)

Select  QC Report on the Report Generator toolbar  
Select **Template > Clear Template**  
Select **New Plot** button  
Click on the header portion of the plot  
Select user label and select a label from the list  
Select product from the list  
Enter a lot number  
Select a parameter or region  
Select **X** or **Y axis**  
Select a statistic  
When finished, select **OK**  
Repeat process for each new plot  
When finished, select **Template > Save As**  
Enter a name and select **Save**

## Panel Template


Accessing a template Select  Panel Template on the Report Generator Toolbar  
Select **File > Open** and locate the desired template  
Select the template and then **Open**

Creating a Template First create a panel and then save the panel with the Export results of panel to report Generator selected

Select  Panel Template on the Report Generator toolbar  
Select **File > Open** and locate the new blank template  
Select the template and then **Open**  
Select the desired global options and the Local tab  
Select each field in turn and enter the desired information  
Select **Update** to enter the information and clear the fields  
Or  
Select **Update & Retain** to enter the information only  
Repeat for each line  
Select Data Plots tab to add plots  
When finished, select **File > Save**

Panel Report



Select  Panel Report on the Report Generator toolbar  
Select **Search** button to list reports  
Highlight desired report and then click on **Select**


Database Entry



Select  on the Report Generator toolbar  
Enter information in each desired field and select **Save**

Database Management  
toolbar



Select  Database Entry on the Report Generator


Enter password (cxppass)  
Select **Connect to Archive DB** button and then **OK**  
Set the Records to Before Date or Between Dates, Fill in

dates

Select archive option and then **OK**

Maintenance Log



Select , double click on item to log

Service Log



Select , select field and enter information

## tetraCXP

### Scheduling Auto-standardization

Select **Tools** > **AutoSetup Scheduler**

While holding down the **CTRL** key select QC 4C 1L FITC-PE-ECD-PC5 Flow-Check™ -C and then the Desired AS tetra application (e.g. AS tetraCXP TBNK FC-C)

Enter the carousel number and select **Schedule**

The system displays a Carousel Load Report

And lists the tubes in order in the Acquisition Manager

Optional: select **Print** to print the report

Select **Close**

Prepare the samples according to the load report and place THEM in the carousel

### Running Auto-standardization

To add a Cal factor, click on  in the Cal Factor column Of the Acquisition Manager

Enter absolute count calibration value, verify Enable has been selected, and select **OK**

Select **File** > **Workspace Preferences**


Select the Acq. Setup tab

Select desired print options (e.g. just FlowPAGE)

Select **OK**

Select  Run

The system runs the samples in turn

Flow-Check – if CV's are too high, select  to prime  
Flow-Set – Change the flow rate to high. If the system does not pass, select rerun


Compensation – make sure the gate is correct and the positives are within the positive region

Verification – compare values to the assay sheet

If not set to automatically approve, approve the results

### Running Patients

Select the  Clear Worklist tool

Select the  Add Panels tab on the Resource Explorer

Select the Common and then the tetraCXP folder

Click on the desired panel and drag and drop it to the Acquisition Manager

Enter a Sample ID 1 and Cal Factor

Enter a carousel number and select  Run

## Reagents List

Coulter Clenz <sup>®</sup>	8546929
Coulter <sup>®</sup> Cyto-Trol <sup>™</sup> Control Cells kit	6604248
Coulter <sup>®</sup> DNA-Prep Reagents kit	6607055
Cyto-Comp <sup>™</sup> Cell kit	6607023
Flow-Check <sup>™</sup> Fluorospheres	6605359
Flow-Check <sup>™</sup> & Flow-Set <sup>™</sup> 675 Fluorospheres	6607120
Flow-Check <sup>™</sup> & Flow-Set <sup>™</sup> 770 Fluorospheres	6607121
Flow-Count <sup>™</sup> Fluorospheres	7547053
Flow-Set <sup>™</sup> Fluorospheres	6607007
Immuno-Brite <sup>™</sup> Standards kit	6603473
ImmunoPrep <sup>™</sup> Reagent system	7546999
Immuno-Trol <sup>™</sup> Cells	6607077
Immuno-Trol <sup>™</sup> Low Cells	6607098
IsoFlow <sup>™</sup> Sheath Fluid	8547008
QuickCOMP 4 kit	177017

## Parts List

Card, Cyt 12 receiver in power supply	6706391
Clip, sample probe retainer	2837022
Cyt 12 fiber optic cable	6028716
O-ring sheath filter holder	2523451
PMI kit	6912942
Sample Head assembly	6807297
Sample Probe assembly	6807268
Sheath filter assembly	6912942
Sheath filter connector large	6232522
Sheath filter connector small	6232472
Sheath tank assembly	7000378
Transmit/Receive fiber optic cable	6028371
Waste vacuum filter	6232561

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**Notes:**

