

BD machines: LSRII, Fortessa, Canto, (Aria)

Export types

⇒ FCS files:

- Just FCS files with embedded compensation (if recorded) and settings.
- Default settings are best (FSC 3.0/3.1). You can also export FCS 2.0 BUT these are downscaled to 4 log decades, which might be necessary for some analysis software, but not others.
- You can choose which parameters to export, you should export all that you had in your experiment, and they are embedded in the files. If you had spillover from a channel you are not exporting, you will still see the spilled over signal in the channels you are exporting.
- Used for analysis in FlowJo.

⇒ Experiment:

- Generates a zip file of a folder containing: Experiment as XML file, data is exported in FCS 3.0 file format. Experiment elements included are: all Browser elements and their hierarchical structure, as well as worksheets and associated analysis objects (plots, gates, statistics views).
- **FCS files exported with an experiment DO NOT contain the same information as FCS files exported separately!!**
- Experiment file contains details such as application settings, tubes, labels, etc., used for the experiment.
- The experiment file can be loaded into Diva and has all the parameters, settings, tubes, etc., AND is linked to the FCS data in the same folder.
- Should be exported once to shared drive before deleting experiment (as ZIP file); you can export & delete in one step.

⇒ Experiment template:

- Experiment templates include specimens, tubes, keywords, sort layouts, cytometer settings, labels, worksheet elements, and worksheets (including all settings such as page breaks), but do not include recorded data.
- This file is saved to the BDExport folder (->Templates -> General, etc.) and will not be deleted when experiment files are deleted.
- If wanted, file can also be copied to your labs shared drive.
- Suggested that it is saved in the following format: initials-meaningful name (I often include key parameters), and in the notes section it should have all the fluorochromes and markers listed. You can create a group (called "Type" for your lab or leave it in general).

- If you want to edit a template, open a new experiment from template, make the changes and export as template, BUT you need to make sure you enter the same type and the EXACT name as before, otherwise it saves a second template.
- To use a template you go to experiment -> new experiment -> then choose your template from the list.

What To Do

- Right click on the experiment -> export -> choose the one you want.
- Experiment templates should be saved for any experiment that will be performed multiple times.
 - The practice of duplicating without data should be stopped.
 - Using a template has the advantage of adjusting cytometer settings to the CST run according to the application settings saved with the template (duplicating an experiment copies your values as is, without incorporating any general changes through the CST).
- Experiments (and FCS files) should be exported to the shared drive of your lab for long term storage/archiving. The shared drives are maintained, backed up and archived through CFRI IT. It is the RESPONSIBILITY OF EACH LAB to manage their own data as some data has to be stored and accessible for many years, in case of a challenge/investigation.
- Experiments should be deleted from the flow core computers within 1 month of being acquired.
 - The Flowcore Facility will allow the data to remain on the local computers for up to 1 month, and a copy of the data files will remain for 6 months on the network.

Cytoflex

Similar to the BD machines you can export Fcs files, create a template and 'export' the experiment, however with slight differences:

- Exporting FCS files: go to file -> export FCS files
- Exporting experiment: go to file -> save experiment
- Exporting as a template: go to file -> save as -> template

The same guidelines apply as to the BD machines.

A little note: the groups that can be created in the plate setup on the cytoflex can be found in flow jo under: \$SMNO