

# Sony ID7000 Data Handling and Storage

**Export, data management, and retention policy**

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**Adapted from:** FCCF SOP – Data handling on Sony ID7000 systems filecite turn1file0

## Purpose

This protocol defines mandatory rules and best practices for **data export, organization, storage, sharing, and deletion** for experiments performed on the **Sony Spectral Cell Analyzer ID7000**.

The aim is to:

- Prevent data loss
- Avoid unnecessary duplication of experiments and unmixing matrices
- Ensure compliance with FCCF data-retention policies
- Reduce congestion on instrument and analysis workstations

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## Scope

This SOP applies to:

- All users of the **Sony ID7000**
- All **instrument PCs and external analysis workstations I and II**
- All data types generated by the ID7000 software, including:
  - FCS files
  - Experiment files (.exdat)
  - Spectral reference controls

## Core rules (read before use)

### Mandatory rules

Failure to follow these rules may result in **permanent data loss** without notice.

- Export FCS files and experiments immediately after each measurement
- Only store data inside your personal **USER** folder
- All data outside the **USER** folder will always be deleted
- FCCF performs **bi-weekly deletion** of:
  - All experiments and library controls in the ID7000 software
  - Exported experiments and FCS files in **USER** folders older than **6 months**
- Users are responsible for **early deletion of data no longer needed**

## Data types and definitions

Data type	File extension	Description
FCS files	.fcs	Event-level flow cytometry data
Experiment files	.exdat	ID7000 experiment definitions, layouts, and settings
Reference controls	internal / exported	Spectral reference controls stored in the library or exported

## Exporting FCS files

### Using ID7000 Data Agent

- FCS file export is handled by the **ID7000 Data Agent**
- The Data Agent starts automatically when FCS export is initiated
- The Data Agent icon appears in the **task tray**

### Monitoring export status

- Hover over the **ID7000 Data Agent** icon to view export progress and status
- A **log file** documenting the export is written to the output folder

## Opening the export folder

1. Right-click the **ID7000 Data Agent** icon
2. Select **Open Latest Output Folder**
3. Review exported files and the associated log file

## Exporting experiment files (.exdat)

1. In the ID7000 software, go to:

- **File → Database**

2. Click **Export**

3. Select the experiment(s) to export
4. Click **Export**

 Unmixing matrices

Avoid creating multiple unnecessary unmixing matrices. Multiple matrices generate **multiple datasets** during FCS export and complicate downstream analysis.

## Folder structure and organization

### Mandatory folder structure

 One USER folder per user

Create **one folder named with your username** as a subfolder of **USER** on the desktop and **use only this folder** for all exports.

Recommended structure:

```
USER/
<username>/
  fcs/
  experiments/
  reference_controls/
  projects/
    project_A/
    project_B/
```

- You may save the export path in **ID7000 Preferences**
- Use subfolders to separate:
  - FCS files
  - Experiment files
  - Reference controls
  - Project-specific datasets

## Data deletion and cleanup

### Data deletion policy

FCCF routinely deletes data without further notice.

You must:

- Delete **old experiments** immediately after analysis on the analysis PC
- Delete **already analyzed FCS files** from all PCs
- Delete unnecessary **reference controls** from the library after export

Additional rules:

- Do **not** make reference controls public (creates duplicates)
- Export reference controls before deletion if they are still needed

## Sharing reference controls

If you want to share reference controls with colleagues:

- Export them to a **dedicated folder**
- Include clear metadata:
  - Associated project
  - Experiment name
  - Date
  - Fluorochrome / antibody information

## Use of external analysis workstations

All rules in this SOP apply equally to:

- External Analysis Workstation I
- External Analysis Workstation II

## Recommended workflow to reduce device usage time

### Efficiency recommendation

To minimize time at the instrument PCs:

1. Perform **experiment setup** on:
  - External Analysis Workstation I (older, slower)
2. Export the experiment file (**.exdat**)
3. Import the experiment on the instrument PC
4. Perform **unmixing adjustments** on:
  - External Analysis Workstation II (newer, faster)
5. Export/import **.exdat** files as required

## Long-term storage and transfer

- The **recommended storage location** is the **BTC data server**
- Instructions for access:
  - <https://btc-community.uni-bonn.de/your-network/>

### Best practice

Transfer data to BTC as soon as possible after export and verify file integrity before deleting local copies.

## Troubleshooting

Issue	Likely cause	Action
Missing FCS files	Export not completed	Check Data Agent log and re-export
Duplicate datasets	Multiple unmixing matrices	Remove redundant matrices and re-export
Data deleted unexpectedly	Stored outside USER folder	Always export into USER//

## Version history

Version	Date	Author	Changes
v1.0	2025-11-21	Dillon Corvino	Converted FCCF Sony ID7000 data handling SOP into Abdullah Lab Quarto protocol standard.