

Mambo Remote Workstation

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SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

VERSION CONTROL

Number of Version	Date of version	Summary of changes
V1	18-03-2026	Original version

RECORDS GENERATED BY THIS PROCEDURE

Records' Identification	Indexation	Archive Responsible

SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

Important Notes

1. Access is available via: Lisbon Intranet (cable), Eduroam network (with fm.ul.pt credentials) and GlobalProtect VPN.
2. For external users and GIMM users without “medicine” credentials, access to Mambo workstation is only possible using the Foxtrot workstation.
3. Access to Mambo Workstation is free of charge but booking through Agendo is **MANDATORY**. Connection without booking is considered unauthorized and may affect the analysis that others might be doing at that moment and lead to data loss.
4. Please don't store any data on the **Desktop**, as it may compromise the performance of the workstation.
5. Please create specific folders to store your data inside **Data Disk (D:)Users Data**. Any files or folders outside this folder will be deleted without notice.
6. **We recommend copying your data from your server before your analysis and work on your local folder.**
7. All users have access to your workspace. This is not a private area. And copying your data for your server and deleting your data from this workstation after your analysis is done.
8. This workstation should be used for ANALYSIS ONLY and NOT FOR LONG TERM DATA STORAGE. Therefore, it is your responsibility to transfer the data to a backup server after you finish your analysis.
9. All files are routinely (monthly) erased to maintain enough free disk space for analysis, including data on SpectroFlo.
10. The Flow Cytometry Platform is not liable for any loss of data on the local hard disks.

SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

System Overview

High-performance analysis station that allows Platform users to analyze complex Flow Cytometry data and access licensed software (e.g., FlowJo, SpectroFlo, CellView™ Image Extractor, etc.) either remotely or physically through the FOXTROT terminal. In addition to remote access, it supports multiple simultaneous sessions, increasing the analytical capacity to up to 5 concurrent users.

Hardware Architecture

- **Processor:** AMD EPYC 8124P (16-Core, 2.45 GHz).
- **Memory:** 256GB DDR5 ECC.
- **Graphics:** NVIDIA PNY Quadro T1000 (8GB GDDR6).
- **System Drive:** 960GB NVMe SSD (OS & Apps).
- **Data Storage:** 10TB RAID 6 Array (8x 1.92TB SSDs).
 - Configured for 2-drive failure protection and 6x times read speed enhancement.

Environment & Software Matrix

Table 1: Mambo Working Areas

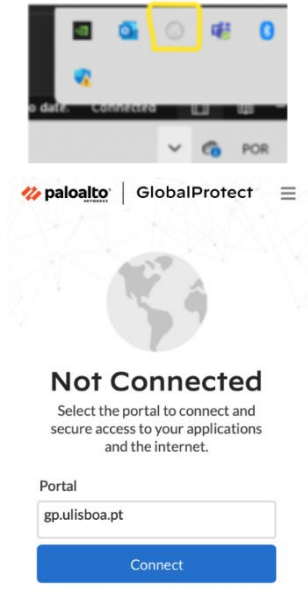
Environment	Operating System	Graphics Profile	Hostname to connect	Working Areas	Working Areas Credentials	Software available	Agendo Calendar
Host - MAMBO	Win 11 Ent. LTSC 2024	Native Hardware	imm-mambo-p1.fm.ul.pt	MamboUser1	MamboDesk top!#1	SpectrFlo	[Lisbon] Flow Cytometry - Remote Data Analysis Workstation (MamboUser1)
				MamboUser2	MamboDesk top!#2	SpectroFlo	[Lisbon] Flow Cytometry - Remote Data Analysis Workstation (MamboUser2)
				MamboUser3	MamboDesk top!#3	SpectroFlo and FlowJo (credentials available at Agendo calendar)	[Lisbon] Flow Cytometry - Remote Data Analysis Workstation (MamboUser3)
MAMBOVM1	Win 11 Ent. LTSC 2024	GPU-P (1GB VRAM)	imm-mambo-p2.fm.ul.pt	VMMamboUser1	MamboFlowjot!#1	FlowJo (credentials available at Agendo calendar)	[Lisbon] Flow Cytometry - Remote Data Analysis Workstation (VMMamboUser1)
MAMBOVM2	Win 10 IoT Ent. LTSC	Standard Acceleration	imm-mambo-p3.fm.ul.pt	VMMamboUser2	MamboFlowjot!#2	FlowJo (credentials available at Agendo calendar) and BD CellView™ Image Extractor	[Lisbon] Flow Cytometry - Remote Data Analysis Workstation (VMMamboUser2)

SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

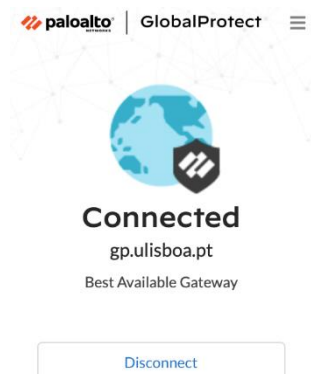
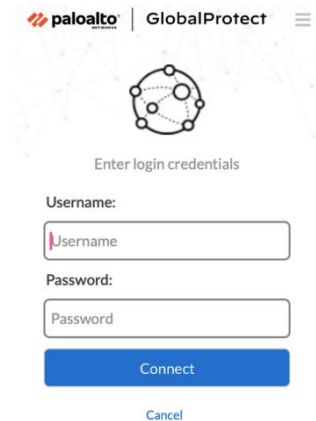
Remote Access Instructions (RDP)

Users can connect via standard Windows Remote Desktop (RDP) or the Windows App for macOS using the Lisbon Intranet or Global Protect VPN.

1. Select the VPN (GlobalProtect) on the Taskbar or Desktop



2. Connect to the Lisbon VPN
 - In the portal text box write **gp.ulisboa.pt** (only needed on first use)
 - Log in with your **medicina credentials** (fm.ul.pt).
3. Confirm connection
 - Once authenticated, you will see the VPN status as Connected.

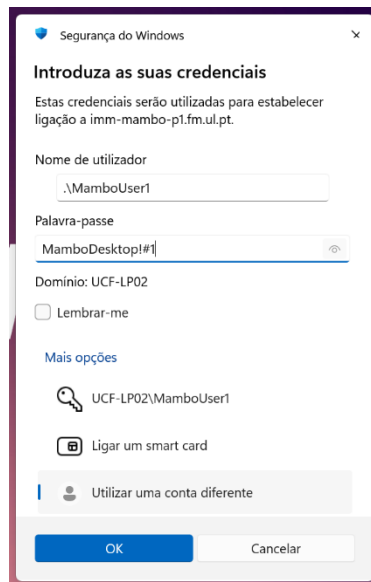


SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

4. Connect to Mambo Workstation

a. FROM A WINDOWS COMPUTER:

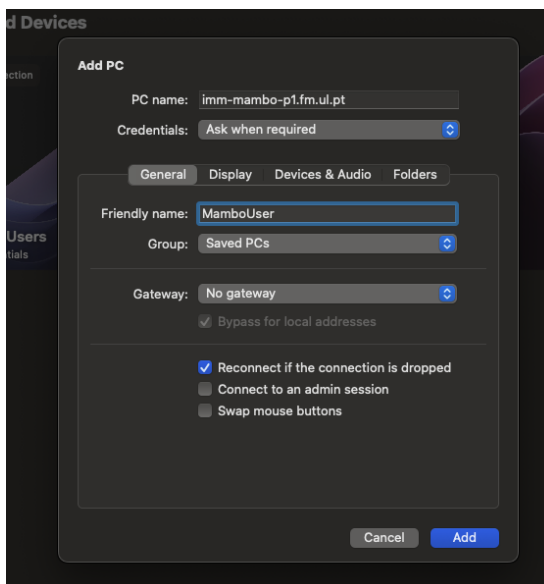
- Use **Remote Desktop Connection** to connect to MAMBO, check Table 1: Hostname to connect.



- Sign in using data in Table1: Working Areas & Working Areas Credentials

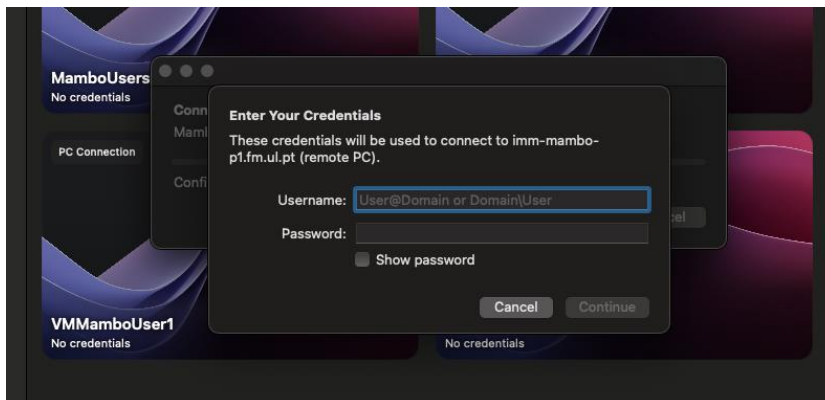
b. FROM A MAC COMPUTER:

- Download Windows App software from the App Store: <https://apps.apple.com/pt/app/windows-app/id1295203466?l=en-GB&mt=12>
- Once installed, launch the Windows App software.
- On the top right, press the “+” button and select the “Add PC” option.
- Insert the Hostname to connect as follows and check Table 1 : Hostname to connect.



SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

- Double-click on the Mambo workstation icon or select “Connect” in the (...) appearing in the bottom-right corner.



- Sign in using data in Table1: Working Areas & Working Areas Credentials

Remote Access using Foxtrot

Fox external users, GIMM users without medicina credentials, or users who want to use a setup with a 32-inch screen, Foxtrot workstation is available at P2-A-32, for remote connection to all Mambo areas. In addition to reserving the specific area in Agendo, it is also mandatory to reserve this workstation through Agendo: [Lisbon] Flow Cytometry - Data Analysis Workstation (Foxtrot).

Support & Maintenance Protocol

To ensure 24/7 availability of the facility, the following rules apply:

- **Freezes/Errors:** If a session hangs, contact **Mariana Fernandes** or a member of the Flow Cytometry team. They hold Admin credentials to reset sessions.
- **Power Management:** Users are **strictly prohibited** from Restarting or Shutting Down the workstation (option is disabled by IT).
- **Technical Escalation:** Only the Flow Cytometry team is authorized to contact IT for hardware-level interventions or system reboots.

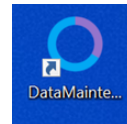
SOFTWARE

FlowJo

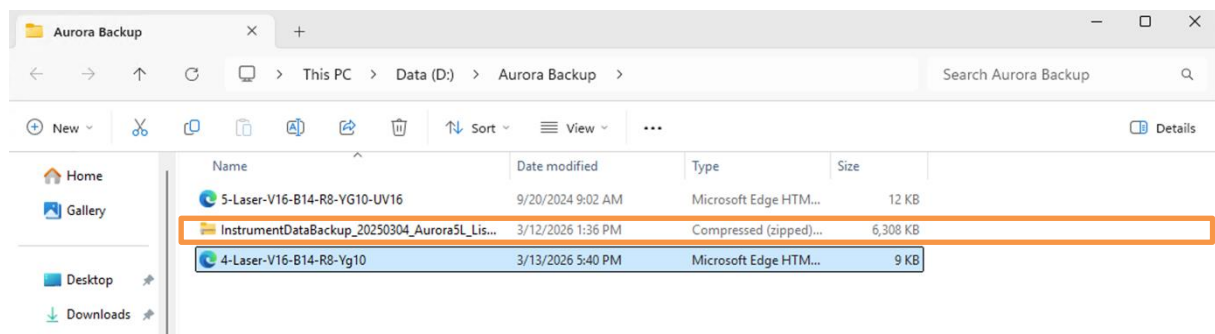
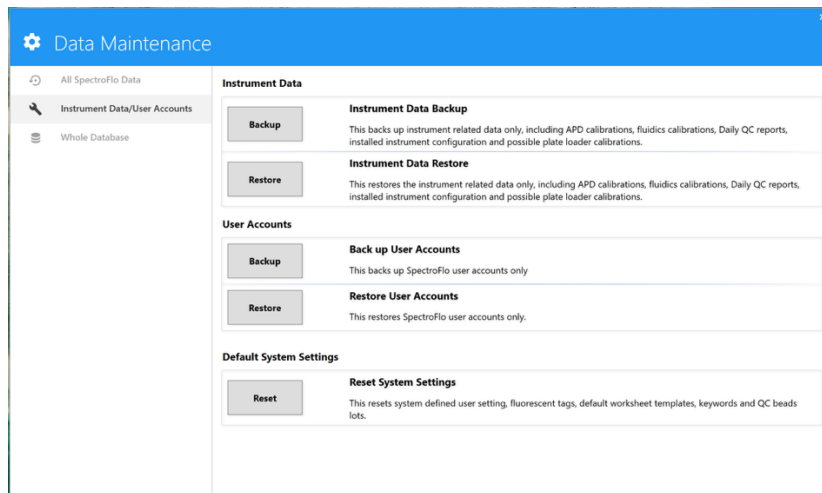


1. Launch FlowJo v10/v11 from the Main Menu.
2. On the right-down corner, click “License...” and select “Use your FlowJo Portal account” > OK.
3. In the dialog box, insert the credentials available at the Agendo calendar.
4. When you finish, **PLEASE QUIT** and close the Windows session.

SpectroFlo



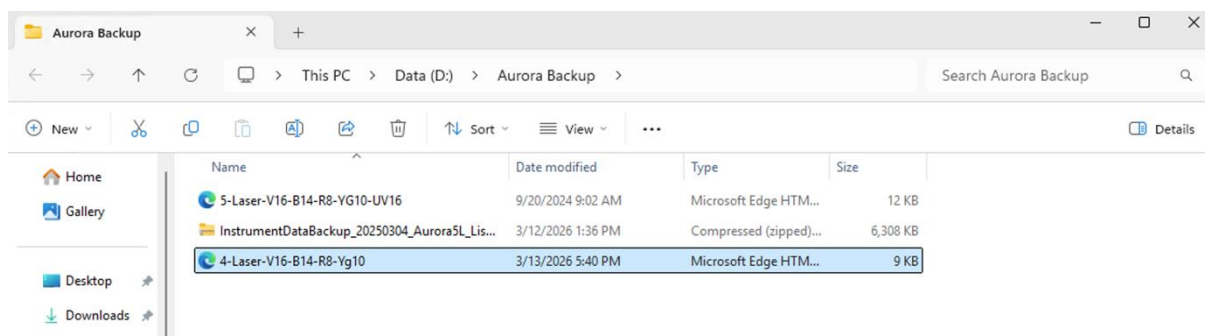
1. Launch Data Maintenance SpectroFlo from the Main Menu.
2. Press “Restore” to Instrument Data Restore and open the latest Instrument Backup in the Data (D:) folder “Aurora Backup”.



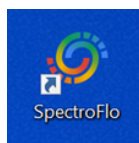
3. Close Data Maintenance SpectroFlo.

SOP.FLOW.996 –MAMBO REMOTE WORKSTATION

4. Open the “Configuration “ folder on the desktop and make sure you have the right configuration (5Laser or 4Laser). If not, open the “Aurora Backup” folder on the desktop and replace it with the one that you want to use.



5. Launch SpectroFlo from the Main Menu.



6. When you finish, **PLEASE QUIT** and close the Windows session.