Tango Remote Workstation

AUTHOR: Flow Cytometry Platform

APPROVAL: Mariana Fernandes

VERSION CONTROL

Number of Version	Date of version	Summary of changes
V1	08-01-2026	Original version
V2	04-05-2026	Add Access to external users
V3	21-09-2026	TANGO Restructuring

RECORDS GENERATED BY THIS PROCEDURE

Records' Identification	Indexation	Archive Responsible

Important Notes

1. Access is available via: Oeiras Intranet (cable) and Forticlient VPN.

2. For external users and GIMM users without "igc" account, access to Tango workstation is only possible using the Moonwalk workstation. Remote access to Moonwalk is available to GIMM users by request.

3. Access to Tango 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. A shortcut for **Users Data (TANGO)** is available on the Moonwalk desktop, allowing GIMM Lisbon site users to copy data from Lisbon server. For external users we recommend to use FileSender FCCN (https://filesender.fccn.pt/).and save data on **Users Data (TANGO) shortcut.**

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. Please copy your data to your server and delete 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.

Location: GIMM Oeiras Datacenter | **Facility:** Flow Cytometry

System Overview

High-performance analysis station that allows Platform users to analyze complex Flow Cytometry data and access licensed software (e.g., FlowJo, SpectroFlo, IDEAS, etc.) either remotely or physically through the MOONWALK terminal. In addition to remote access, it supports multiple simultaneous sessions, increasing the analytical capacity to up to 3 concurrent users.

Hardware Architecture

- **Processor:** AMD EPYC 7282 (16-Core).
- **Memory:** 256GB DDR4 ECC 3200MHz.
- **Graphics:** NVIDIA RTX A2000 (6GB 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

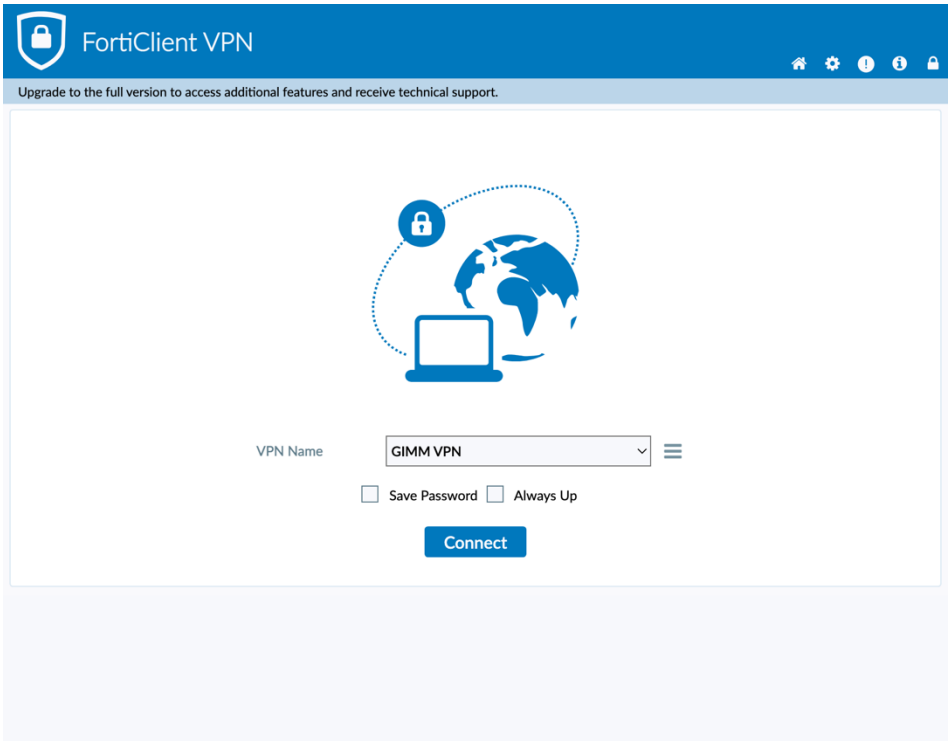
Table 1: Tango Working Areas

Environment	Operating System	Graphics Profile	Hostname to connect	Working Areas	Working Areas Credentials	Software available	Agendo Calendar
Host - TANGO	Win 11 Ent. LTSC 2024	Native Hardware	Tango.ras.igc.gulbenkian.pt	TangoUser1	TangoDesktop!#1	SpectroFlo IDEAS 6.4	[Oeiras] Flow Cytometry - Remote Data Analysis Workstation (TangoUser1)
				TangoUser2	TangoDesktop!#2	SpectroFlo IDEAS 6.4	[Oeiras] Flow Cytometry - Remote Data Analysis Workstation (TangoUser2)
				TangoUser3	TangoDesktop!#3	SpectroFlo IDEAS 6.4 and FlowJo (credentials available at Agendo calendar)	[Oeiras] Flow Cytometry - Remote Data Analysis Workstation (TangoUser3)

Remote Access Instructions (RDP)

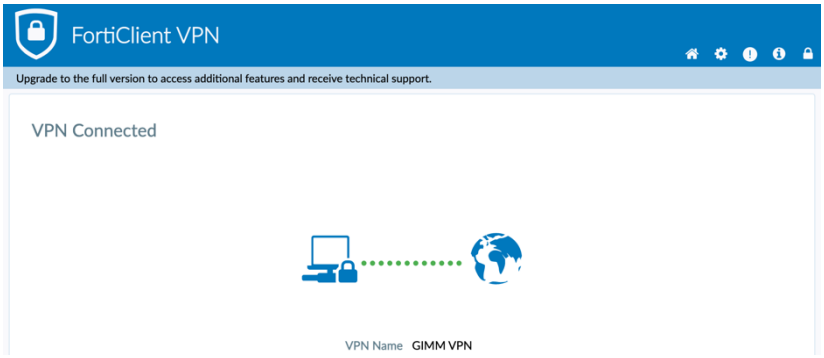
Users can connect via standard Windows Remote Desktop (RDP) or the Windows App for macOS using the Oeiras Intranet or FortiClient GIMM VPN.

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



2. Connect to the GIMM VPN
   - In the VPN Name select GIMM VPN (only needed on first use)
   - Log in with your **GIMM credentials**.

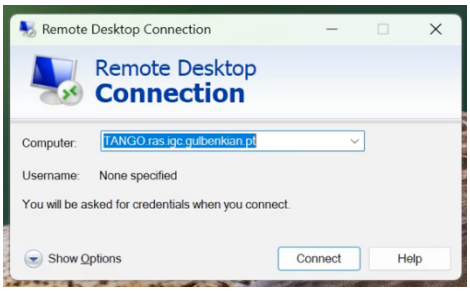
3. Confirm connection
   - Once authenticated, you will see the VPN status as Connected.

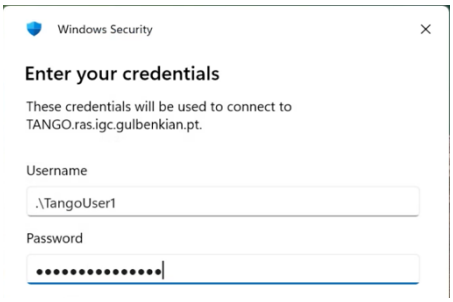


4. Connect to Tango Workstation

a. FROM A WINDOWS COMPUTER:

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

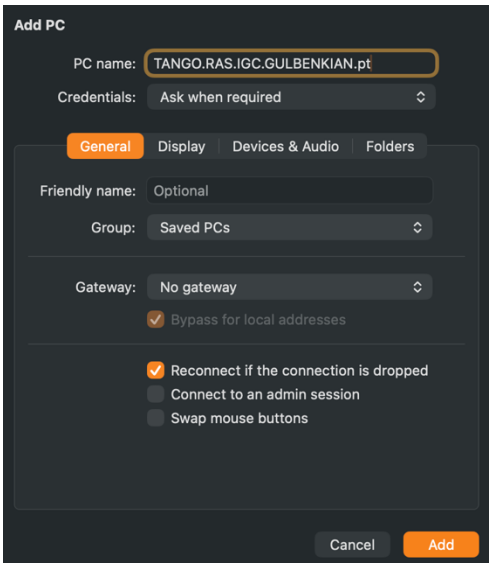




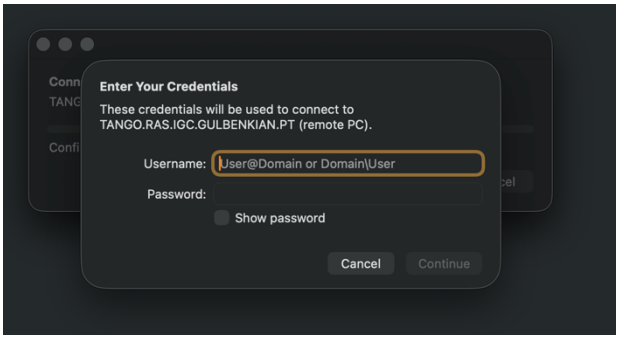
- Sign in using data in Table 1: Working Areas & Working Areas Credentials

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.



- Double-click on the Tango 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 Moonwalk

For external users, or users who want to use a setup with a 32-inch screen, the Moonwalk workstation is available in the bench area next to the Flow Cytometry Platform, for remote connection to all Tango areas.

In addition to reserving the specific area in Agendo, it is also mandatory to reserve this workstation through Agendo: [Oeiras] Flow Cytometry - Data Analysis Workstation (Moonwalk).

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

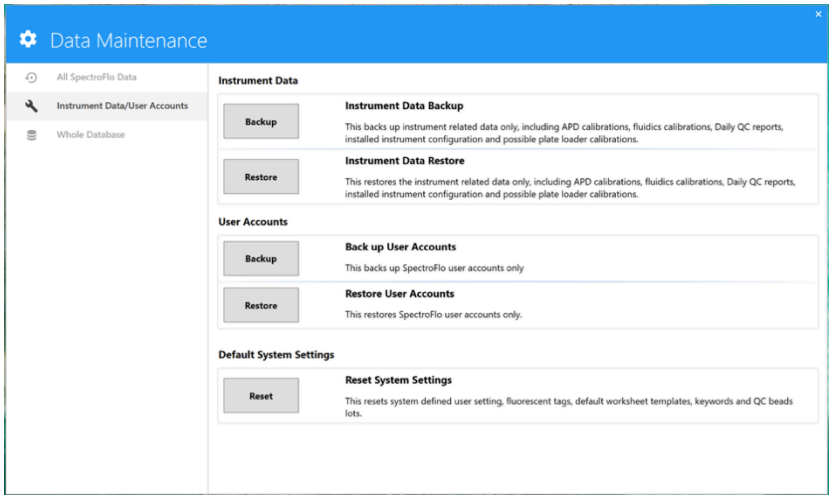
1. Launch FlowJo v10/v11 by selecting the Shortcut in the Desktop.
2. On the right-down corner, click “License…” and select “Use your FlowJo Portal account” > OK.
3. In the dialog box, insert the credentials available at the Agendo calendar.
4. When you finish, **PLEASE QUIT** and **SIGN OUT** from Windows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

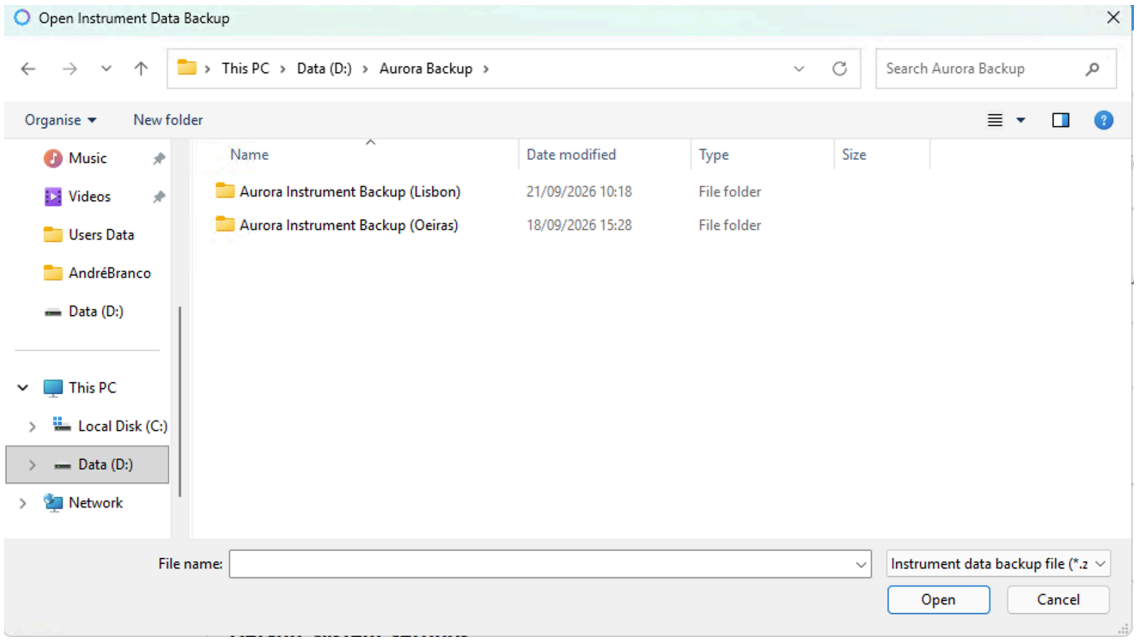
SpectroFlo

1. Launch Data Maintenance SpectroFlo by selecting the Shortcut in the Desktop.



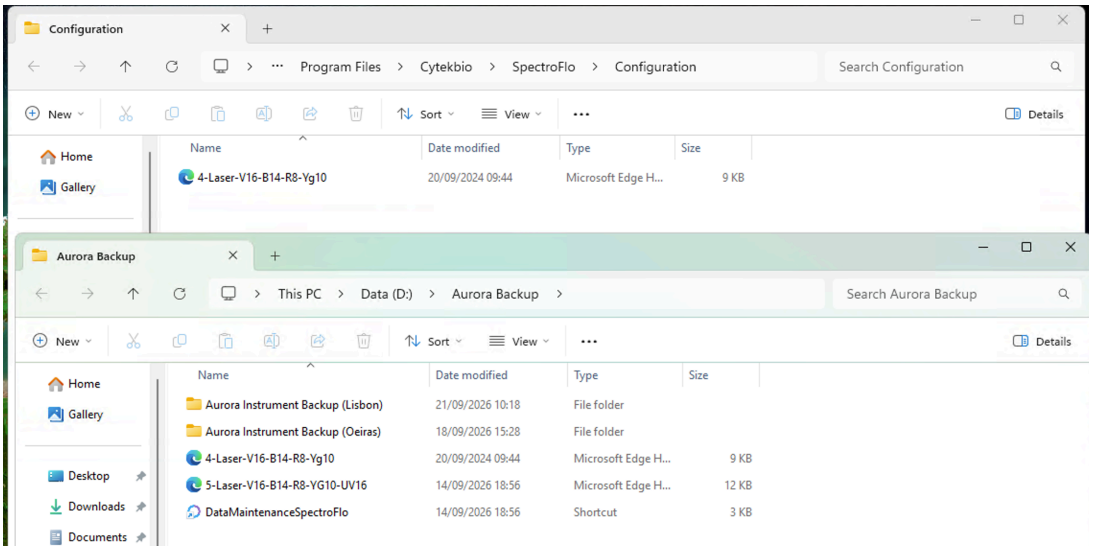
2. Select Instrument Data/User Accounts and press **Restore** **Instrument Data Restore** and choose the latest Instrument Backup in the Data (D:) folder “Aurora Backup”.





3. Close Data Maintenance SpectroFlo.

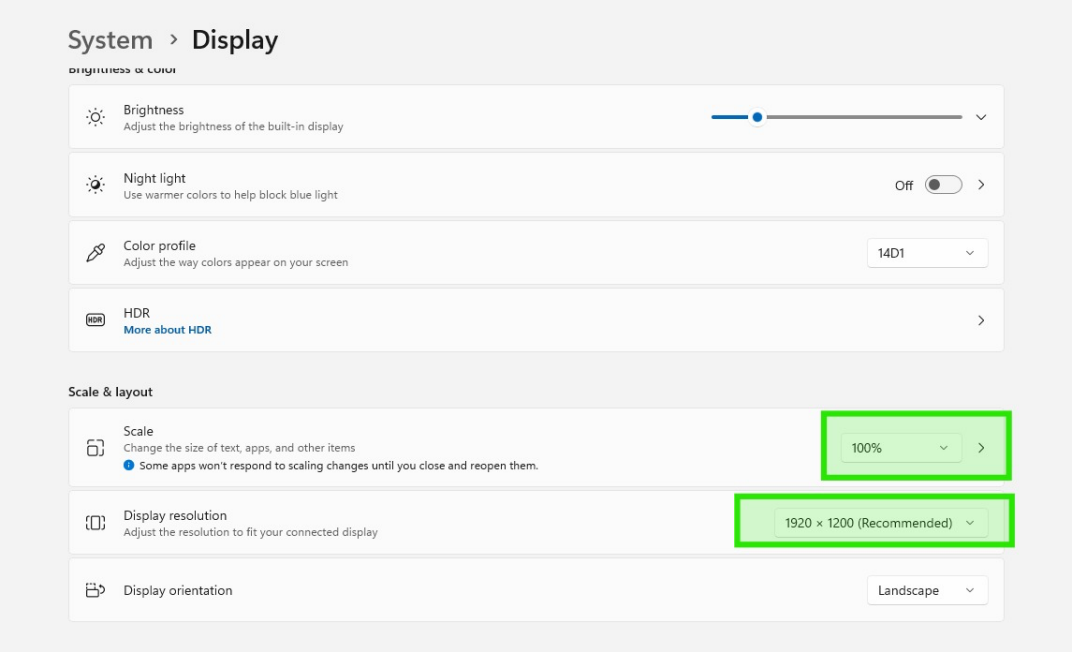
4. Open the “Aurora Configuration” shortcut on the Desktop and make sure you have the right configuration (5Laser or 4Laser).
    a. If not, open the “Aurora Backup” folder on the desktop and replace it with the one that you want to use.



5. Launch SpectroFlo by selecting the Shortcut in the Desktop.



Note: To improve users' experience using SpectroFlo, you may need to adjust the display settings of your screen.



6. When you finish, **PLEASE QUIT** and **SIGN OUT** from Windows session.
   Note: If you have modified the display settings for use with SpectroFlo, please ensure that they are restored to the default configuration afterward.

IDEAS 6.4 (w/ Machine Learning Module)

1. Launch IDEAS 6.4 by selecting the Shortcut in the Desktop.
2. When you finish, **PLEASE QUIT** and **SIGN OUT** from Windows session.