Oxford Nanopore Technologies

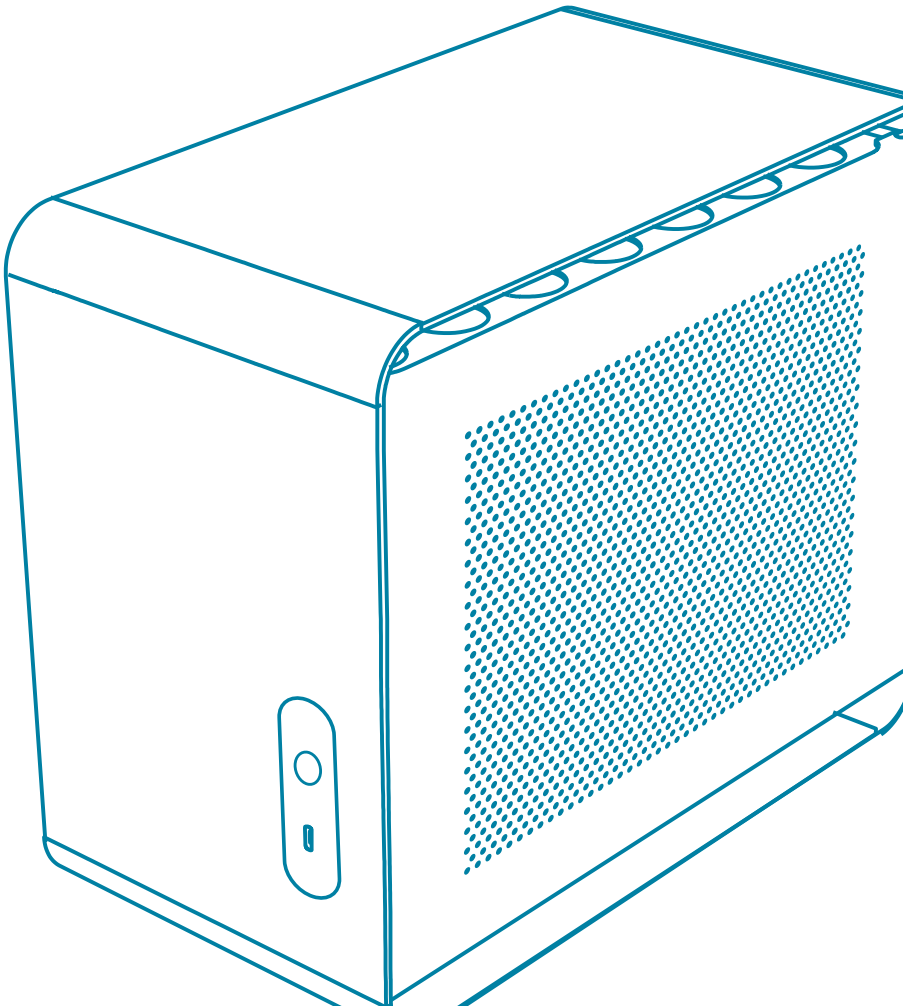
ElysION
Data Acquisition Unit

(ELY-DAU001)

Operating manual

Revision: 1
Date: 01 April 2025

Product overview



The ElysION Data Acquisition Unit is an example Compute Unit sold with the ElysION that provides above standard compute requirements for operating and servicing the sequencing device.

The ElysION Data Acquisition Unit has the Sequencing Software installed, which runs the MinION Mk1D or the PromethION 2 Solo sequencing devices integrated on the ElysION Sample Preparation Device worktable. The ElysION Data Acquisition Unit is connected to the ElysION Sample Preparation Device via an Ethernet cable, which allows data transfer to and from the MinION or PromethION, enabling control and data storage of sequencing files produced.

The compute also runs downstream analysis of basecalled data to provide sample-to-answer solutions using the latest bioinformatic workflows, which are integrated into the Sequencing Software. The ElysION Sample Preparation Device integrates the MinION or PromethION nanopore sequencer into the end-to-end process.

The ElysION Data Acquisition Unit services the MinION Mk1D or PromethION 2 Solo by having the Linux Operating system to run the Oxford Nanopore Sequencing Software. The Sequencing Software controls the Data Acquisition Unit, whilst the Dorado basecaller in the Sequencing Software converts per-base current changes from the nanopore into a genetic sequence.

The ElysION Data Acquisition Unit has 6.7 Tb of data storage to save sequencing files produced during the assay.

Use disclaimer

The ElysION Data Acquisition Unit is a small compute for sequence data acquisition, basecalling, and interpretive analysis.

To be used by **trained personnel only**.

The ElysION Data Acquisition Unit:

Technical specification

Specifications	ElysION Custom Data Acquisition Unit
Model number	ELY-DAU001
Supply voltage (V)	200-240 AC ± 10% (50/60 Hz)
Maximum rated current (A)	10
Maximum rated power (W)	750
Size (H x W x D) (mm)	300 x 180 x 340
Weight (kg)	9
Installation ports	1 x Power socket 2 x HDMI port 6 x DisplayPort 2 x Ethernet port 4 x USB-A 2.0 port 1 x USB-C 3.0 port
Software installed	Ubuntu 20.04
Compute specification	Intel CPU (12 cores) 64 GB RAM NVIDIA GPU (ADA 5000) 7.6 TB SSD

Environment specification

Operational temperature range	Functional range of electronics is within environmental temperatures of +5°C to +40°C
Humidity	Use within 30% to 75% relative non-condensing humidity limits
Sequencing temperature	N/A
Clearance	The user should maintain 30 cm clearance to all but the bottom face of the device
Altitude range	Can be used up to altitudes of 2,000 m
Indoor use	Intended for indoor use
Pollution	The device has a Pollution Degree 2
Overvoltage	This has an Overvoltage 2 category

Set up

The ElysION Data Acquisition Unit ships with 5x power supply cables (1x US, 1x UK, 1x EU, 1x CN, 1x AUS) for international use.

The shipping weight is ~9 kg.

Operation

Powering on

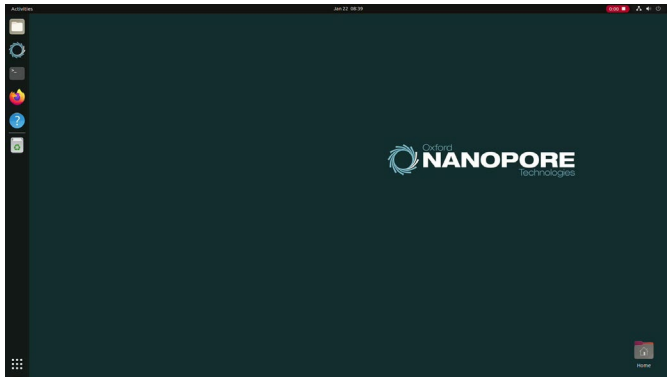
1. Press the power button on the front of the ElysION Data Acquisition Unit to power on the compute. Wait ~30 seconds until you arrive at a login screen.

Log in

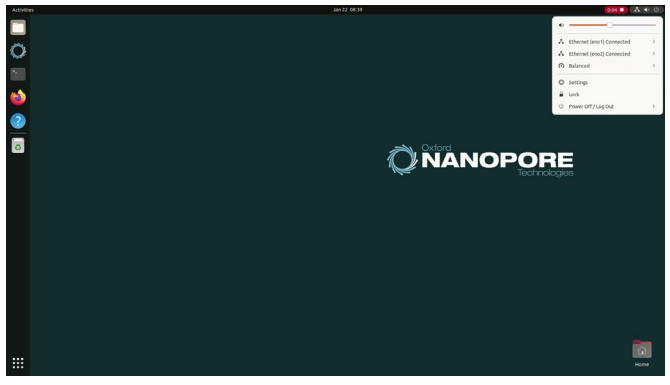
1. Log in to the ElysION Data Acquisition Unit with the password: **prom**

Powering off

1. Click on the power icon in the top right corner of the home screen.



2. Click **Power Off/Log Out** in the drop-down menu.



3. Click **Power Off**. Wait until the LED lights on the compute turn off to ensure the ElysION Data Acquisition Unit is fully powered off.

Storage

The ElysION Data Acquisition Unit is shipped at +15 to +25°C.
The ElysION Data Acquisition Unit is operational at +5°C to +40°C.

Safety and regulatory

- This equipment is to be used by trained and authorised personnel only.
- This equipment is not intended for use in locations where children are likely to be present.
- This equipment is not to be opened or tampered with, unless by authorised and trained engineers.
- Opening the equipment can expose users to components which pose burn risks, fans which pose physical risks and can lead to serious injury. Do not open the equipment unless you are an authorised and trained engineer.
- This equipment contains no user serviceable parts, do not attempt to service the unit. Contact Oxford Nanopore Technologies Support at: **support@nanoporetech.com**
- The equipment is to be used in the vertical position only.
- Only use the cable supplied, or a suitable approved and rated power cable.

Nordic warnings:
Denmark: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”
Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"
Norway: “Apparatet må tilkoples jordet stikkontakt”
Sweden: “Apparaten skall anslutas till jordat uttag”

Emergency procedures

In case of an emergency, the mains plug of the ElysION Data Acquisition Unit must be disconnected from the mains power immediately.

Software, license, and warranty

Software

The Field Applications Scientist will install and update any software during service or as required.

Warranty

A license and warranty can be purchased for your device here: **store.nanoporetech.com/device-warranty.html**
Flow cell warranty: **community.nanoporetech.com/to/warranty**

Address

Manufacturer: Oxford Nanopore Technologies, Gosling Building, Edmund Halley Road, Oxford Science Park OX4 4DQ

Supplier: BIOS IT, New Broad Street House, 35 New Broad Street, London EC2M 1NH

Production Factory: Boston, Unit 5 Curo Park, Frogmore, St Albans AL2 2DD

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