

## MS41-1-3 DARTS on-demand computing #MS41-1-3

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### Abstract

The Data Analysis Remote Treatment Service (DARTS) [1] is a remote desktop service that launches virtual machines in the cloud, and displays them in your browser. These machines can be used for e.g. scientific data treatment. A user indicates how many CPU cores and how much memory he wishes, can optionally request a GPU for heavy-duty computations, and can be customized at start-up. The sessions typically start in about 10 seconds, and can be shared with colleagues within their life-time (typically 4 days). Each user can manage all his active sessions (connect, stop, share). This service can be installed and configured within a few minutes (`sudo apt install qemu-web-desktop`), and it requires minimal maintenance. The source code is fully open-source, and relies on very simple elements (Apache web-server and QEMU). Give it a try !

We provide at Synchrotron SOLEIL a set of prepared environments with plenty of scientific software for e.g. crystallography, spectroscopy, imaging, tomography, etc. A specialized environment has also been set-up for AlphaFold protein structure prediction.

### References

[1] DARTS <https://gitlab.com/soleil-data-treatment/soleil-software-projects/remote-desktop>

### DARTS on-demand computing



### Create a data treatment session

**Data Analysis Remote Treatment Service (DARTS)** 

This service is a data analysis portal that allows to create a remote desktop to treat your data, in the cloud. You can tune the type of system you need. It will be displayed in your browser, without any additional software for you to install.

User ID / email	<input type="text" value="farhi"/>
Password	<input type="password" value="Your password (for local use...)"/>
Machine	Kubuntu 20.04
Number of CPU's	3 (Single core)
Amount of memory	1 GB
Session life-time	12 hours (short work, testing)

I agree with the Terms and Conditions

I will only use this service for data analysis, without any illegal activities. I am aware that remote desktop sessions are by nature volatile. My work is not kept after using the service. We keep track of this service use for legal purposes. We do not use cookies. Only necessary logs are kept. We do not share user information with third parties.

Any registered user can use this service free of charge. Provide a user account name and password. You may access our virtual machine files [here](#).

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