Open OnDemand User's Guide

Table of contents

1. Introduction

This document describes Open OnDemand implemented in TSUBAME4.0.

Open OnDemand makes it easier than ever to use TSUBAME.

1.1. Overview of Open OnDemand

Open OnDemand (OOD) is a web browser-based portal site that makes supercomputers readily available.

Conventional supercomputers require terminal-based command operations using SSH, knowledge of public key cryptography, and SSH key creation and registration.

Open OnDemand is web-based, so that making it easy for anyone to start using a supercomputer.
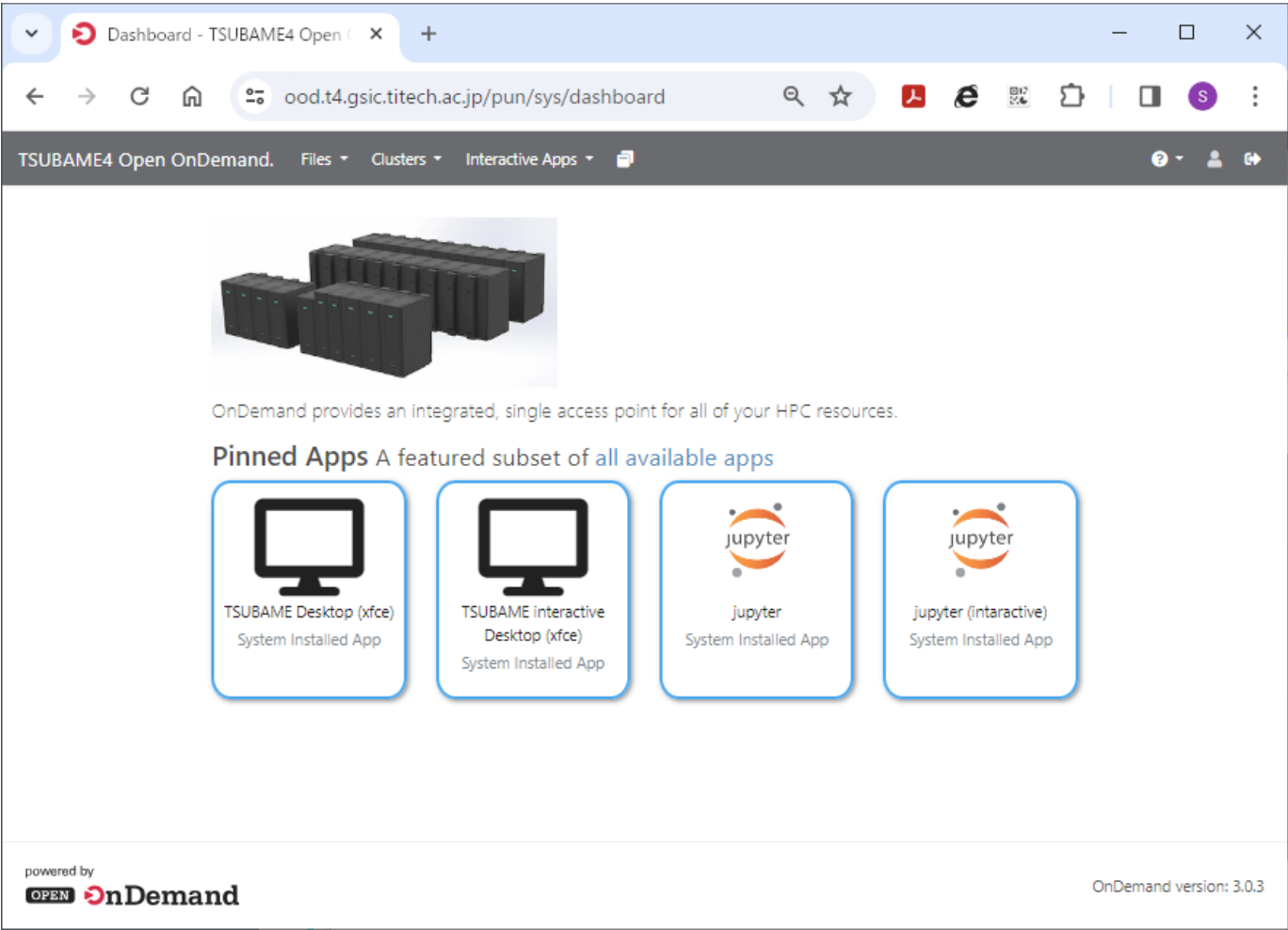
2. How to login

2.1. Get a TSUBAME account

A TSUBAME account is required to use Open OnDemand.

If you do not have an account, please apply for one here.

2.2. How to login to Open OnDemand

2.2.1. 1 TSUBAME password setting in TSUBAME Portal

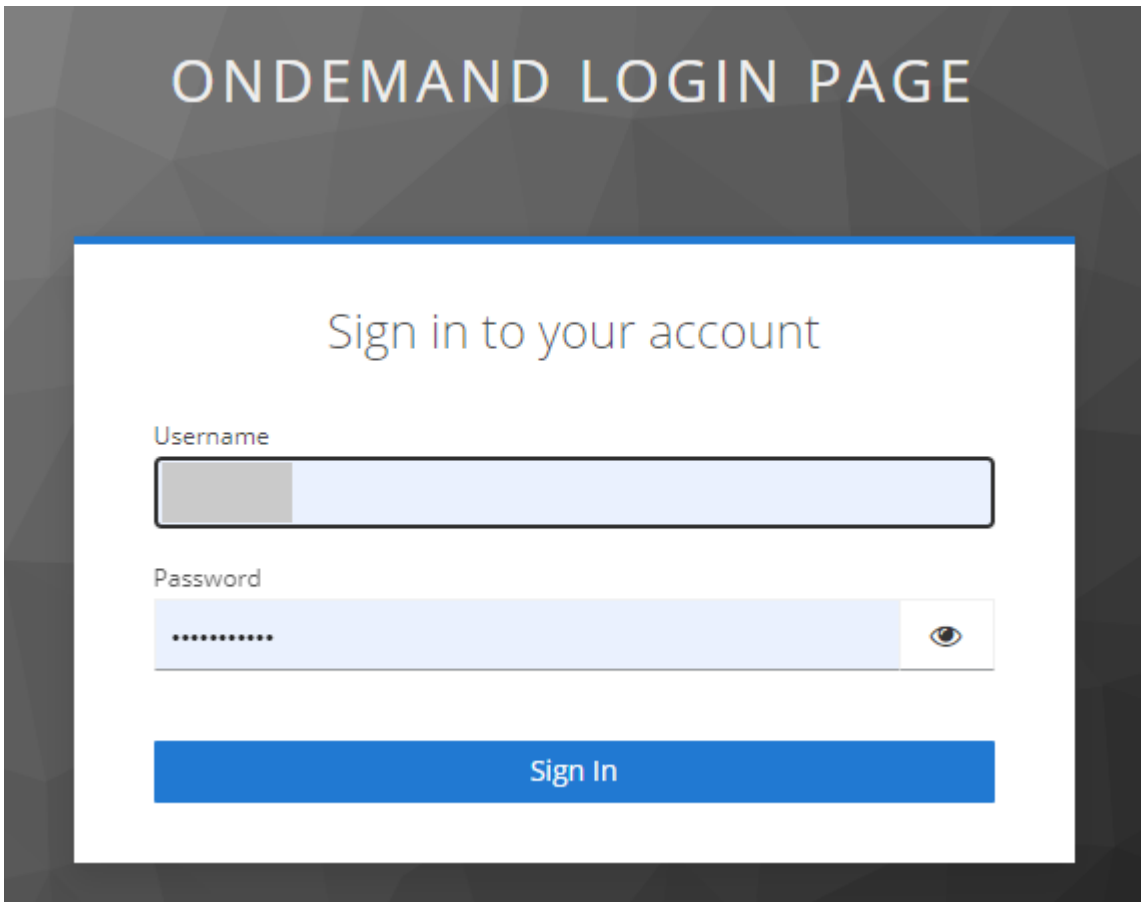Before using Open OnDemand, please set your TSUBAME password on TSUBAME Portal.

Please refer to here for TSUBAME password setting on TSUBAME portal.

2.2.2. 2 Login to Open OnDemand

When you use Open OnDemand, access below using Web browser.

```
https://ood.t4.gsic.titech.ac.jp/
```

Enter your TSUBAME account and TSUBAME password in Username and Password, respectively, and press Sign In.

An e-mail with an access code will be sent to your e-mail address registered on the TSUBAME Portal.

ondemand login page access code

O
ood@t4.gsic.titech.ac.jp
宛先 O ▨▨▨▨▨▨@m.titech.ac.jp

Access code: 82162810

Copy the number in the Access code, paste it into the space below, and press Submit.
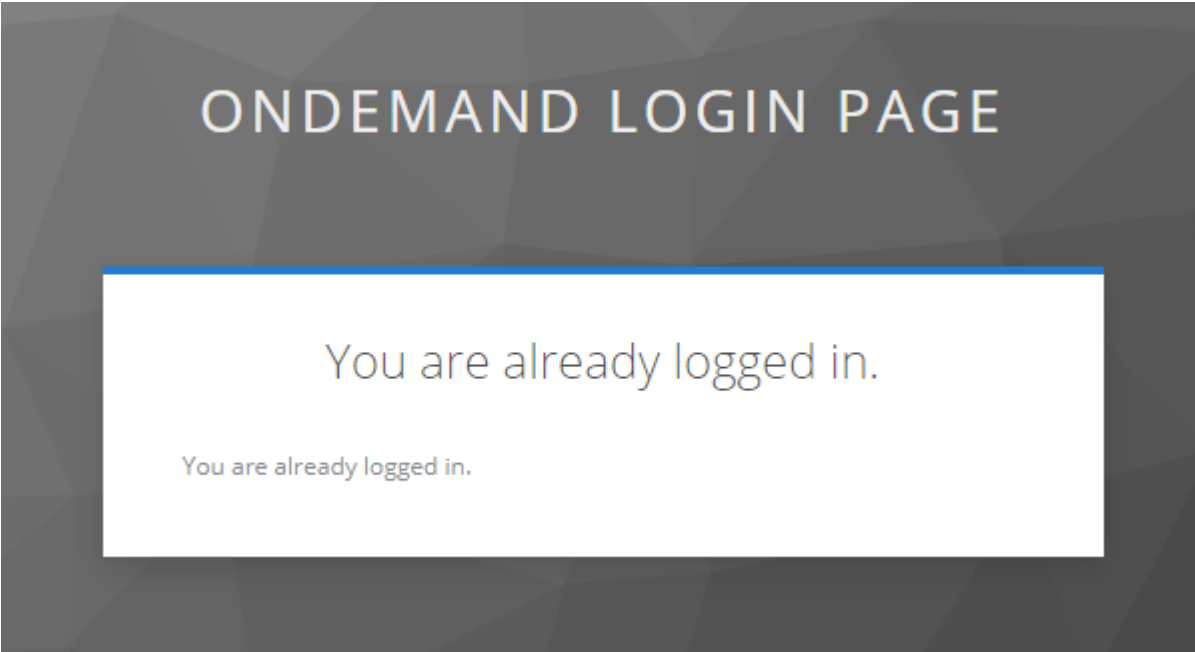

> ⓘ **Info**
>
> After a certain period of time, the access code will become invalid. In this case, press "resend code" to reissue the access code.

After successful login, the dashboard will appear.
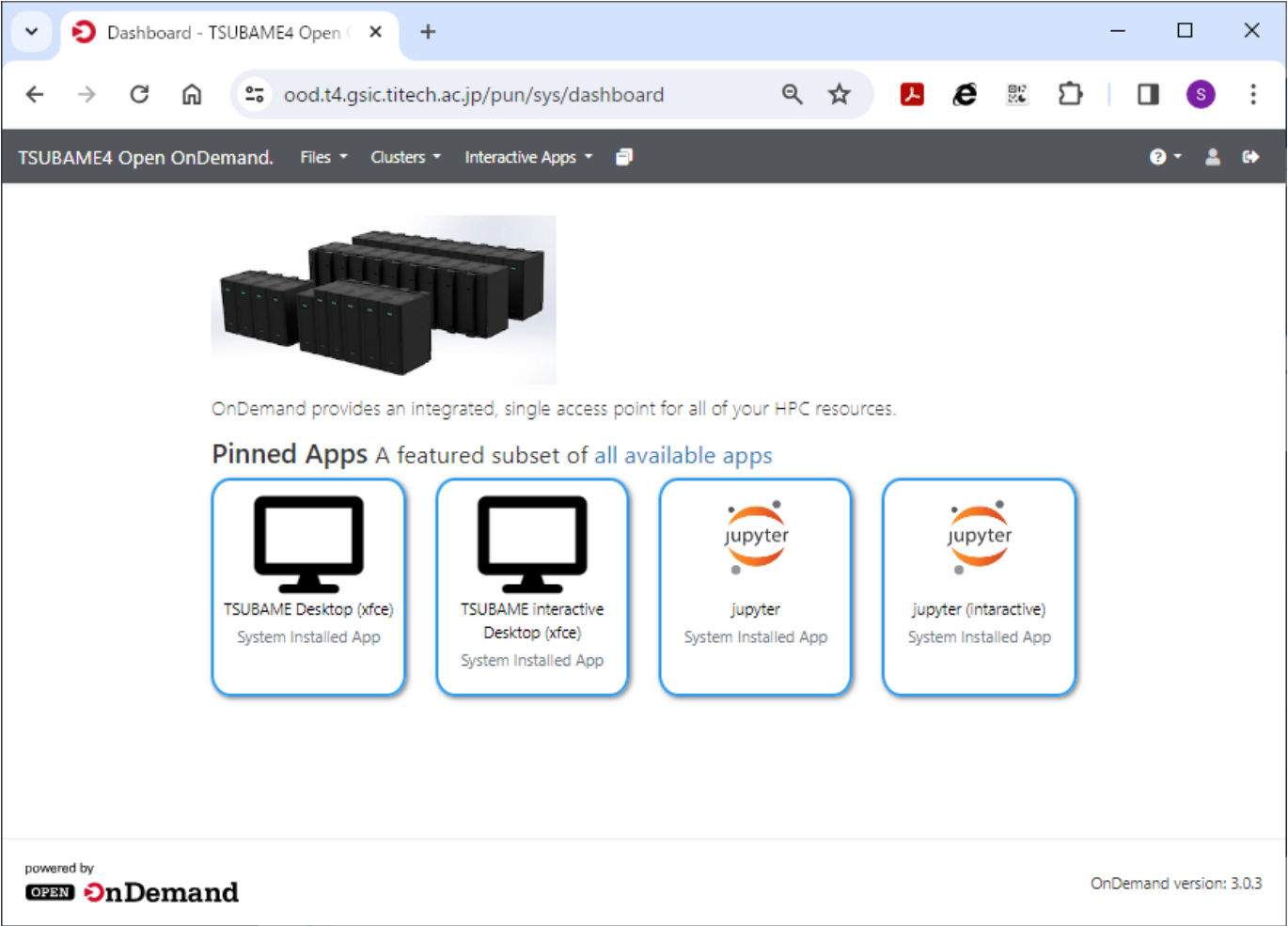
If you see the error shown below or cannot log in, please access the URL on the top page or dashboard.

OOD Top page

```
https://ood.t4.gsic.titech.ac.jp/
```

OOD Dashboard

```
https://ood.t4.gsic.titech.ac.jp/pun/sys/dashboard
```
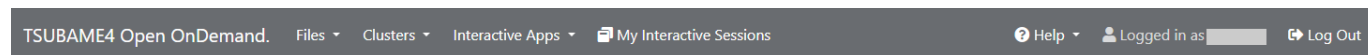
3. Operation of Open OnDemand

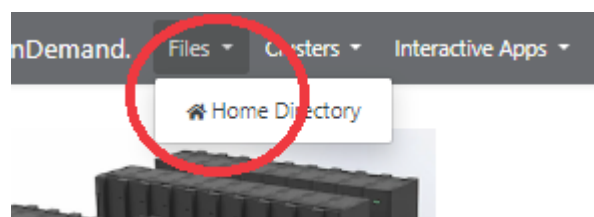This section describes how to use Open OnDemand.

3.1. Screen layout and menu bar

This section explains how to use the menu bar at the top of the screen.

3.1.1. File operations

Select Home Directory from Files on the menu bar to display TSUBAME's home directory.

Standard file operations can be performed from the buttons on the screen.

Button	Operation	Description
Open in Terminal	Terminal	Open TSUBAME terminal with a new tab
Refresh	Refresh	Refresh directory
New File	File	Create new file
New Directory	Directory	Create new directory
Upload	Upload	Upload a file
Download	Download	Download selected file(s)
Copy/Move	Copy/Move	Copy/Move selected file(s)
Delete	Delete	Delete selected files(s)
Change directry	Directory	Change directory
↑	Directory	Move up to the parent directory
Copy path	Path	Copy current directory's path

3.1.2. Login to TSUBAME

Selecting "Clusters > TSUBAME cluster Shell Access", you can login to TSUBAME with. Multiple terminals can be opened.
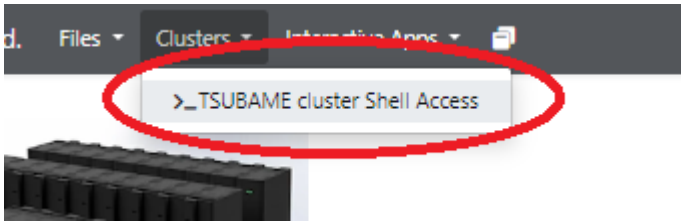
To log out of TSUBAME and exit the terminal, type exit and close the browser tab.
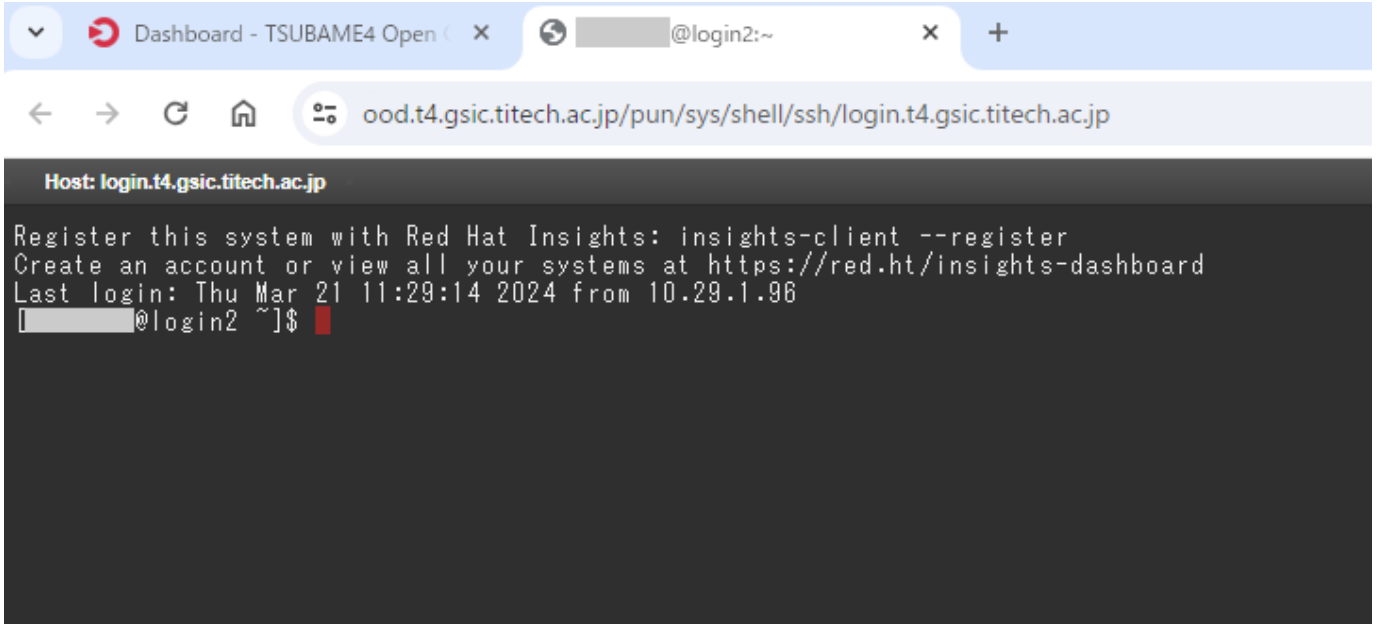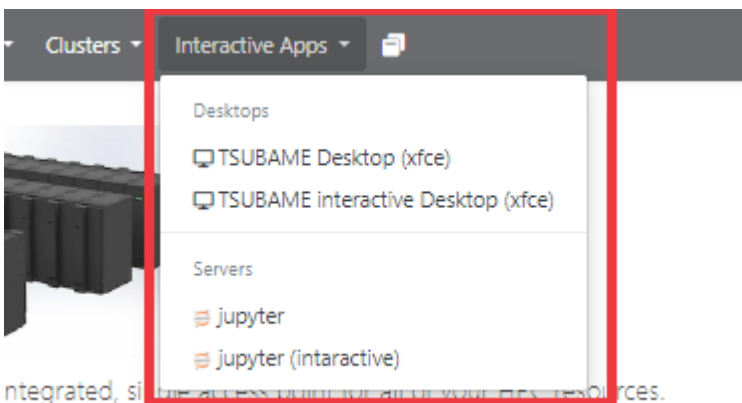

> ✏️ **Tips**
>
> The terminal will automatically disconnect after a certain period of inactivity. Please click here for a workaround. Session suddenly disconnected while working on TSUBAME4.0
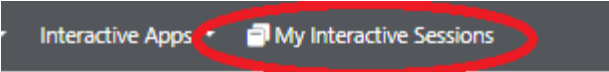
3.1.3. Interactive Apps

For Interactive Apps, lease refer to 3.2. Interactive Apps.

3.1.4. Sessions

My Interactive Sessions can display own sessions.

Press Delete for each session to exit the session.

Tips

When the browser is narrower, the My Interactive Sessions string in the menu bar disappears, leaving only the icon display.
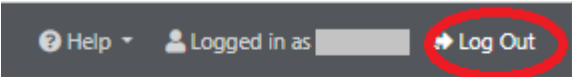
3.1.5. Help and Restart

Press Help for manual display and refresh.
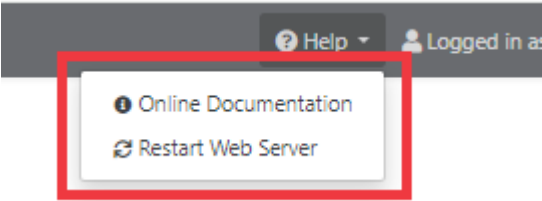
If you have problems with Open OnDemand, try Restart Web Server first.

3.1.6. Logout

To log out of Open OnDemand, press Log Out on the menu bar.

> ✏️ **Warnning**
>
> If you close your browser without pressing Log Out, your Open OnDemand session will remain open for a certain amount of time. If you close your browser without pressing Log Out, your Open OnDemand session will remain for a certain period of time, which may cause problems when you try to log in to Open OnDemand again.

3.2. Interactive Apps

This section describes how to use Open OnDemand's Interactive Apps.

Interactive Apps are shown as Pinned Apps in the center of the dashboard.
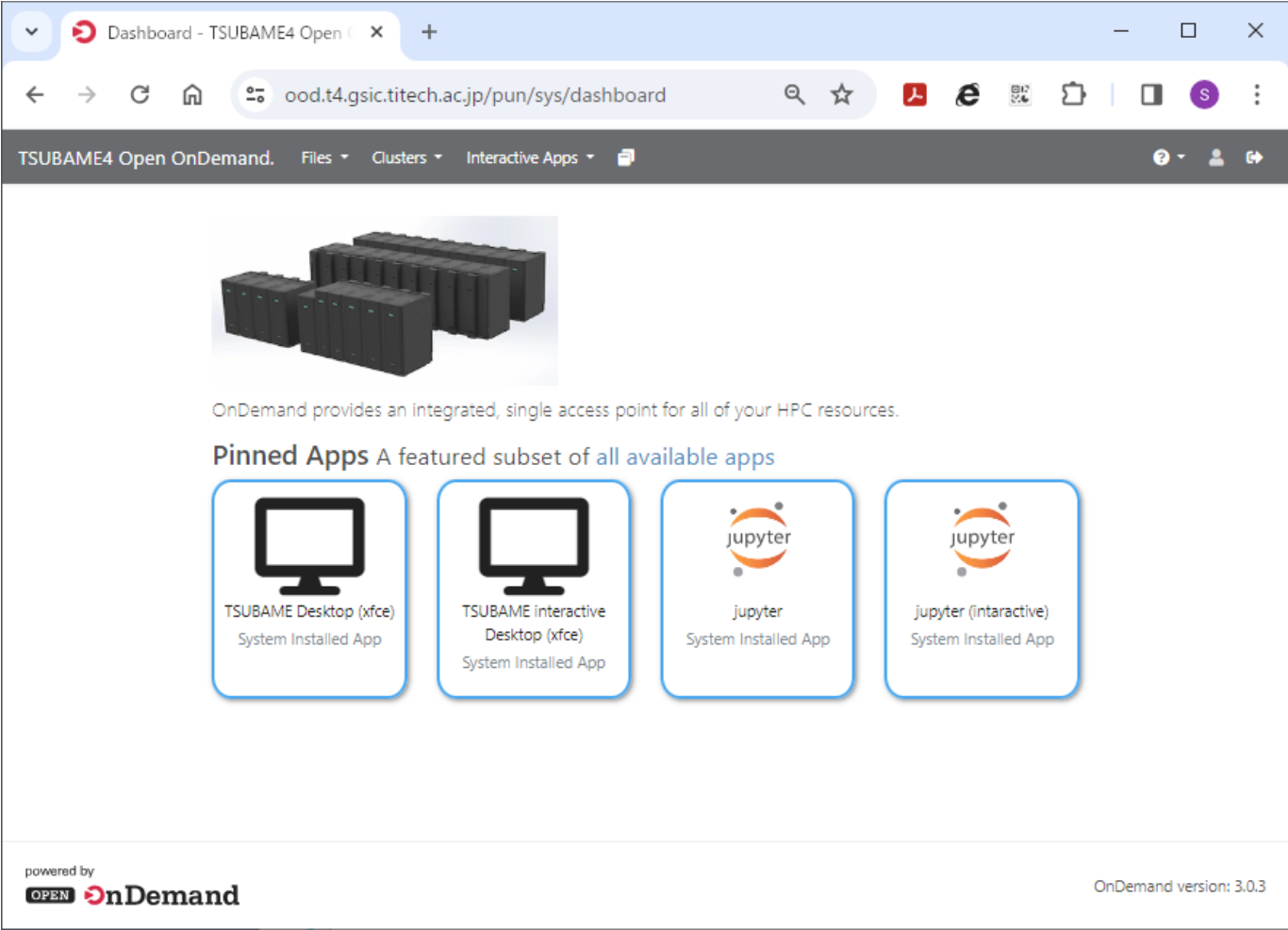
3.2.1. TSUBAME Desktop

Press TSUBAME Desktop from Interactive Apps (Pinned Apps) on the dashboard.

Select requried items on the request, press Lauch button.

TSUBAME Desktop (xfce)

This app will launch an interactive desktop on one or more compute nodes. You will have full access to the resources these nodes provide. This is analogous to an interactive batch job.

select resource type

node_o (1/8 node) ⌄

If you use resevation, only node_f, node_h, node_q, and node_o are available.

Number of Request resources.

1

TSUBAME group

tgz-jyouchu ⌄

Maximum run time(hh:mm:ss)

1:00:00

Specify the job execution time in the format hh:mm:ss. If Trial run is selected for TSUBAME group, the run time should be less than 10 minutes.

Priority Option

-5 Standard execution priority. ⌄

Reservation Number (AR ID)

Launch

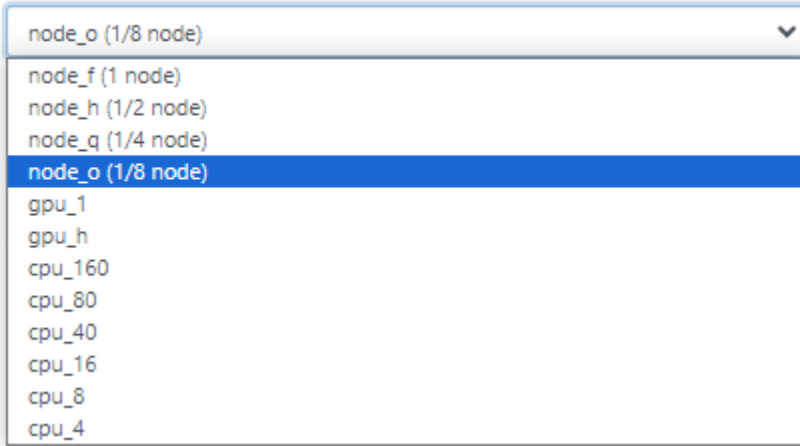* The TSUBAME Desktop (xfce) session data for this session can be accessed under the data root directory.

Catption	Item	Description
Select resouce type	Resource type	Select required resource type
Number of Request resources	number	Required node number
TSUBAME group	group	Select TSUBAME group
Maximum run time(hh:mm:ss)	duration	Set the maximum value for the scheduled usage time (can be terminated midway)
Select Premium Option	priority	Priority
Reservation Number (AR ID)	ARID	Specify the reservation number (AR ID) when using a reservation

> **Tips**
>
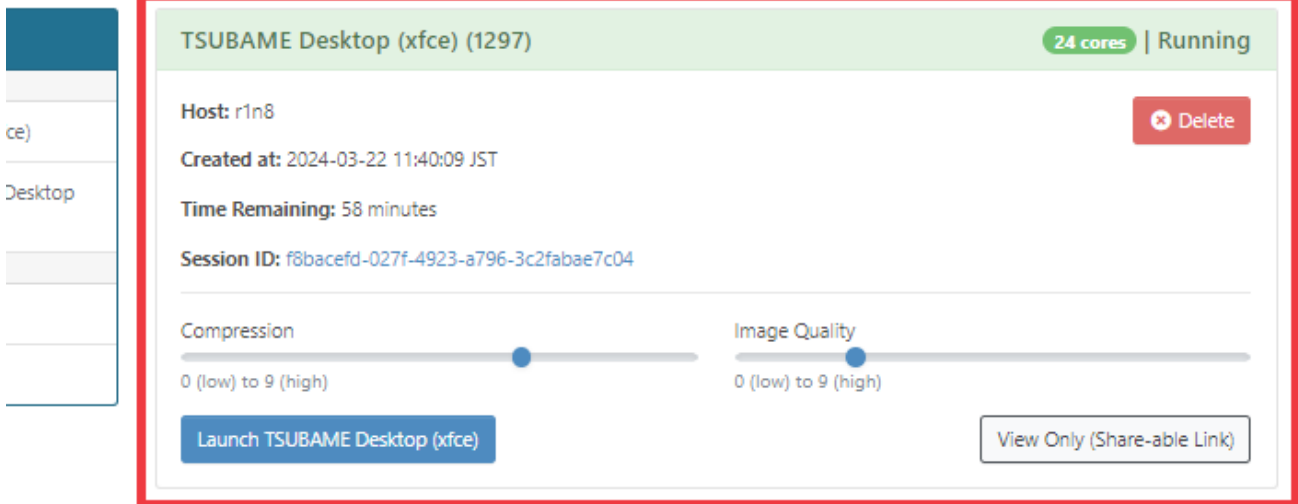> The only resource types for which reservations can be used are node_f, node_h, node_q, and node_o.

2024-05-02

select resource type

node_o (1/8 node) ⌄

node_f (1 node)
node_h (1/2 node)
node_q (1/4 node)
node_o (1/8 node)
gpu_1
gpu_h
cpu_160
cpu_80
cpu_40
cpu_16
cpu_8
cpu_4

The request is submitted as a job, and when the specified resource is allocated, the session is set to Running; if it is Queued, it is waiting to be executed, so wait a while before checking the status.

created.   ✕

Sessions

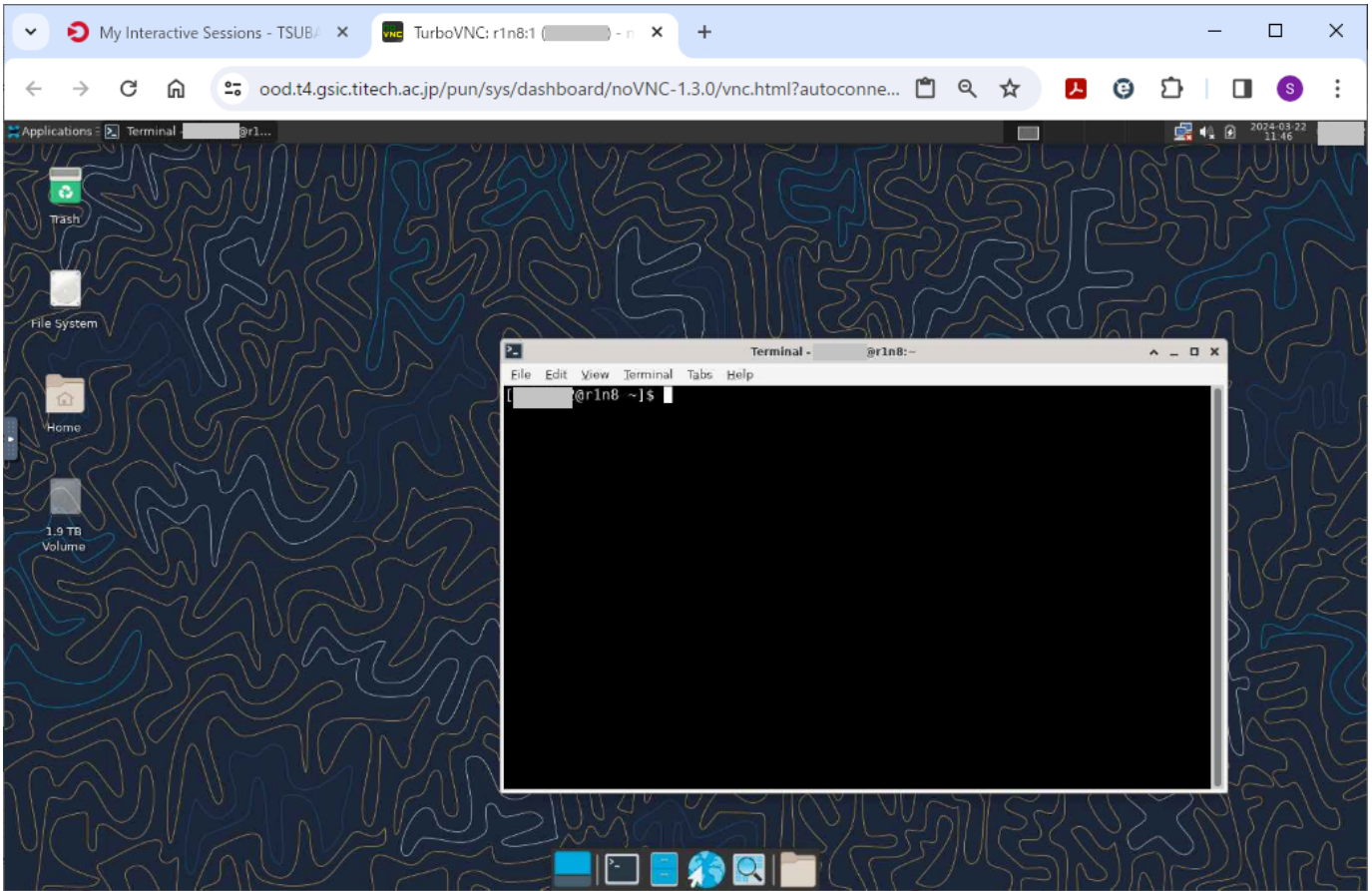TSUBAME Desktop (xfce) (1297)   24 cores | Running

Host: r1n8   ⊗ Delete
Created at: 2024-03-22 11:40:09 JST

Time Remaining: 58 minutes

Session ID: f8bacefd-027f-4923-a796-3c2fabae7c04

Compression   Image Quality

0 (low) to 9 (high)   0 (low) to 9 (high)
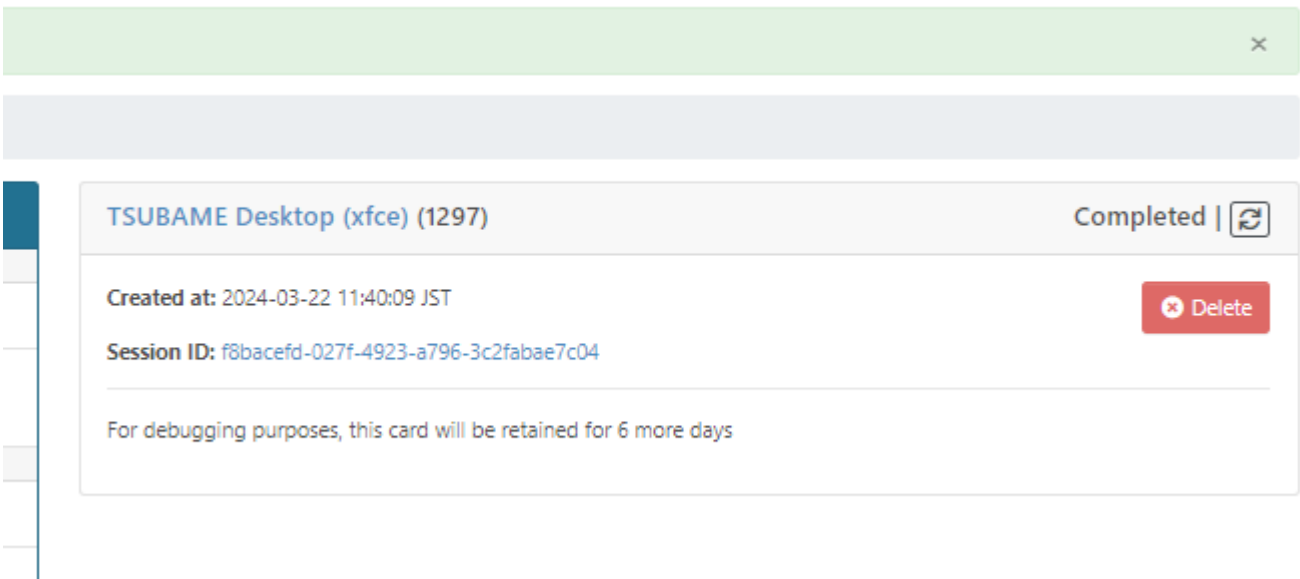
Launch TSUBAME Desktop (xfce)   View Only (Share-able Link)

Press Launch TSUBAME Desktop (xface) to open the X desktop in a new tab.

2024-05-02

Pressing View Only (Share-able Link) opens a copy of the X desktop in a new tab. You will not be able to control the screen, but you will see a mirrored display of the previous desktop. By sending the URL of this tab via e-mail or other means, you can simply share or monitor the screen.

To exit the X desktop, close the browser tab and Delete the session from the session list. Once closed, the session will be marked as Completed. The session will also be marked as Completed when the specified usage time has elapsed.

TSUBAME Desktop (xfce) (1297)   Completed | ⟳

Created at: 2024-03-22 11:40:09 JST   ✕ Delete

Session ID: f8bacefd-027f-4923-a796-3c2fabae7c04

For debugging purposes, this card will be retained for 6 more days

> **Tips**
>
> Sessions that have been marked as Completed will be automatically deleted from the list after a certain period of time. If you want to delete a session immediately, press Delete.

3.2.2. TSUBAME Interactive Desktop

From the Interactive Apps (Pinned Apps) dashboard, press TSUBAME interactive Desktop.

From the request screen below, select the desired items and press the Launch button.

Caption	Item	Description
TSUBAME group	group	Specify TSUBAME group
Maximum run time(hh:mm:ss)	duration	Set the maximum value for the scheduled usage time (can be terminated midway)

The process after that is the same as 3.2.1. TSUBAME Desktop.

3.2.3. Jupyter

From the Interactive Apps (Pinned Apps) dashboard, press Jupyter.

From the request screen below, select the required items and press the Lauch button.

jupyter

jupyter

This app will launch a Jupyter Notebook server on one or more nodes.

select resource type

node_o (1/8 node) ▾

If you use resevation, only node_f, node_h, node_q, and node_o are available.

Number of Request resources.

1

TSUBAME group

tgh-hpe00 ▾

Maximum run time(hh:mm:ss)

1:00:00

Specify the job execution time in the format hh:mm:ss. If Trial run is selected for TSUBAME group, the run time should be less than 10 minutes.

select Premium option

-5 Standard execution priority. ▾

reservation Number

Do not select anything other than node_f, nodeDo not select anything other than node_f, node_h, node_q, and node_o for the reservation._h, node_q, and node_o for the reservation.

Launch

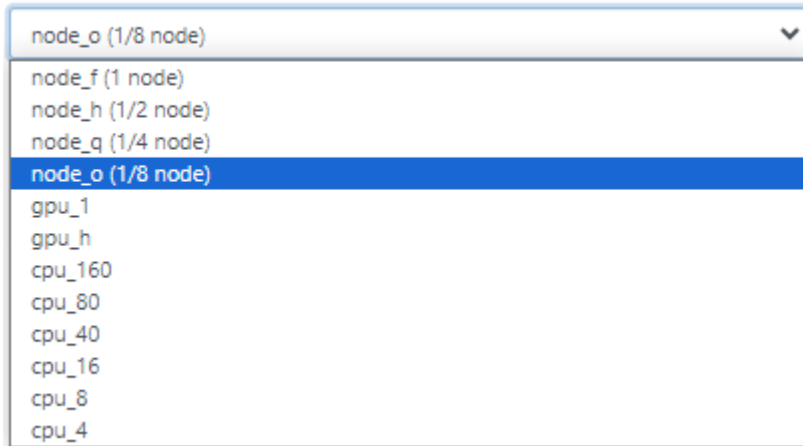* The jupyter session data for this session can be accessed under the data root directory.

Caption	Item	Description
Select resouce type	Resource type	Required resource type
Number of Request resources	number	Requierd node number
TSUBAME group	group	Specify TSUBAME group
Maximum run time(hh:mm:ss)	duration	Set the maximum value for the scheduled usage time (can be terminated midway)
Select Premium option	Priority	Specify priority
Raeservation Number (AR ID)	ARID	Specify the reservation number (AR ID) when using a reservation

📝 **Tips**

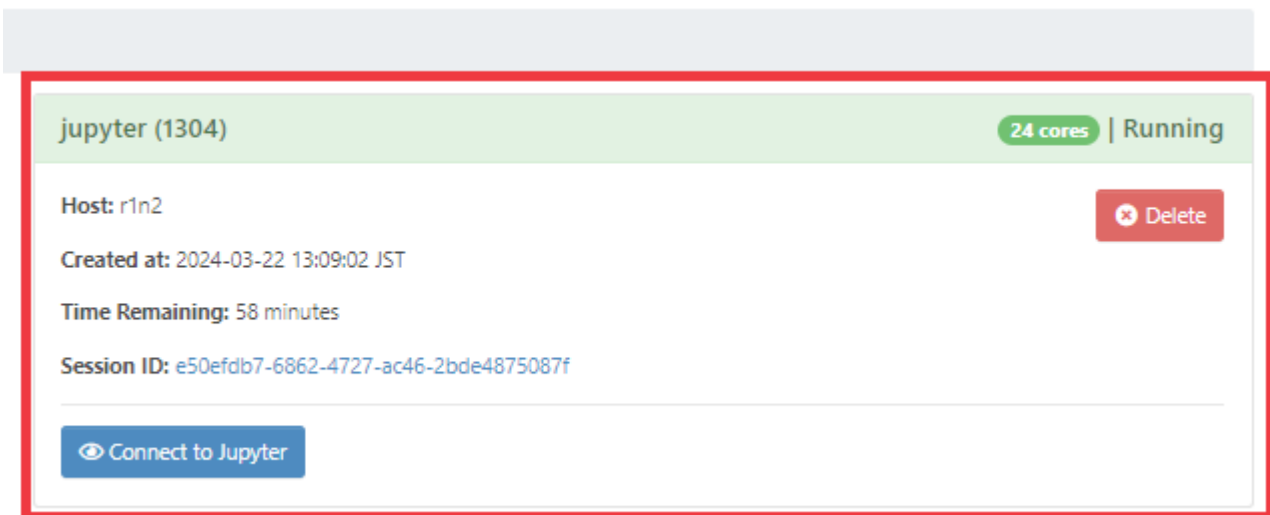The only resource types for which reservations can be used are node_f, node_h, node_q, and node_o.

2024-05-02

select resource type

The request is submitted as a job, and when the specified resource is allocated, the session is set to Running; if it is Queued, it is waiting to be executed, so wait a while before checking the status.

Press Connect to Jupyter to open JupyterLab in a new tab.

To exit JupyterLab, select File > Shutdown. In this case, the session will be marked as Completed. The session will also be marked as Completed when the specified usage time has elapsed.
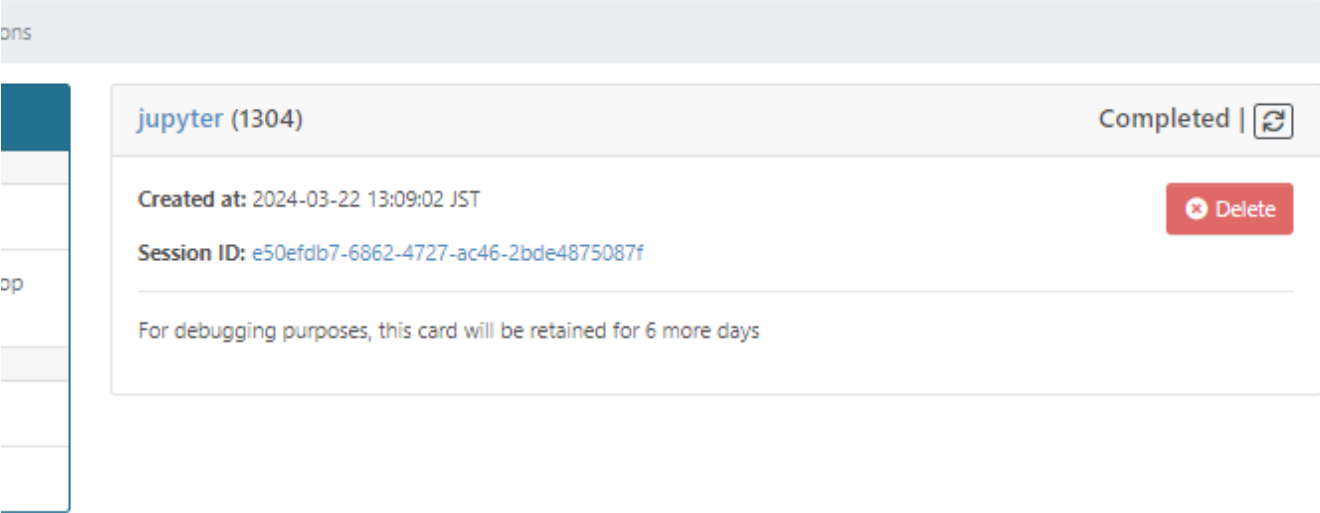
3.2.4. Jupyter Interactive

From the Interactive Apps (Pinned Apps) dashboard, press Jupyter (interactive).

From the request screen below, select the required items and press the Lauch button.

jupyter (intaractive)

jupyter (intaractive)

This app will launch a Jupyter Notebook server on one or more nodes.

TSUBAME group

tgh-hpe00

Maximum run time(hh:mm:ss)

1:00:00

Specify the job execution time in the format hh:mm:ss.

Launch

* The jupyter (intaractive) session data for this session can be accessed under the data root directory.

Caption	Item	Description
TSUBAME group	group	Specify TSUBAME group
Maximum run time(hh:mm:ss)	duration	Set the maximum value for the scheduled usage time (can be terminated midway)

The process after that is the same as in 3.2.3. Jupyter.

Revision History

Date	Change
2024/05/02	First edition