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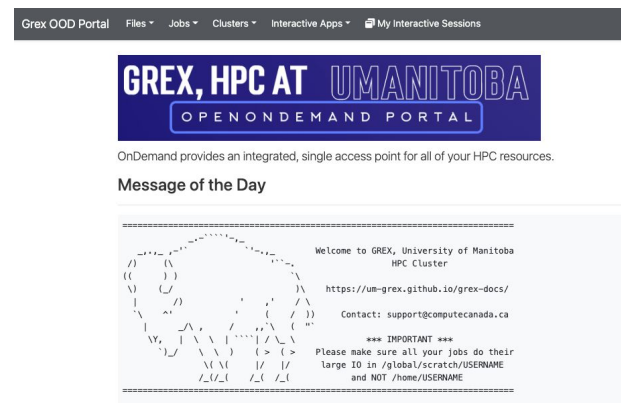
OSC OpenOnDemand portal on Grex

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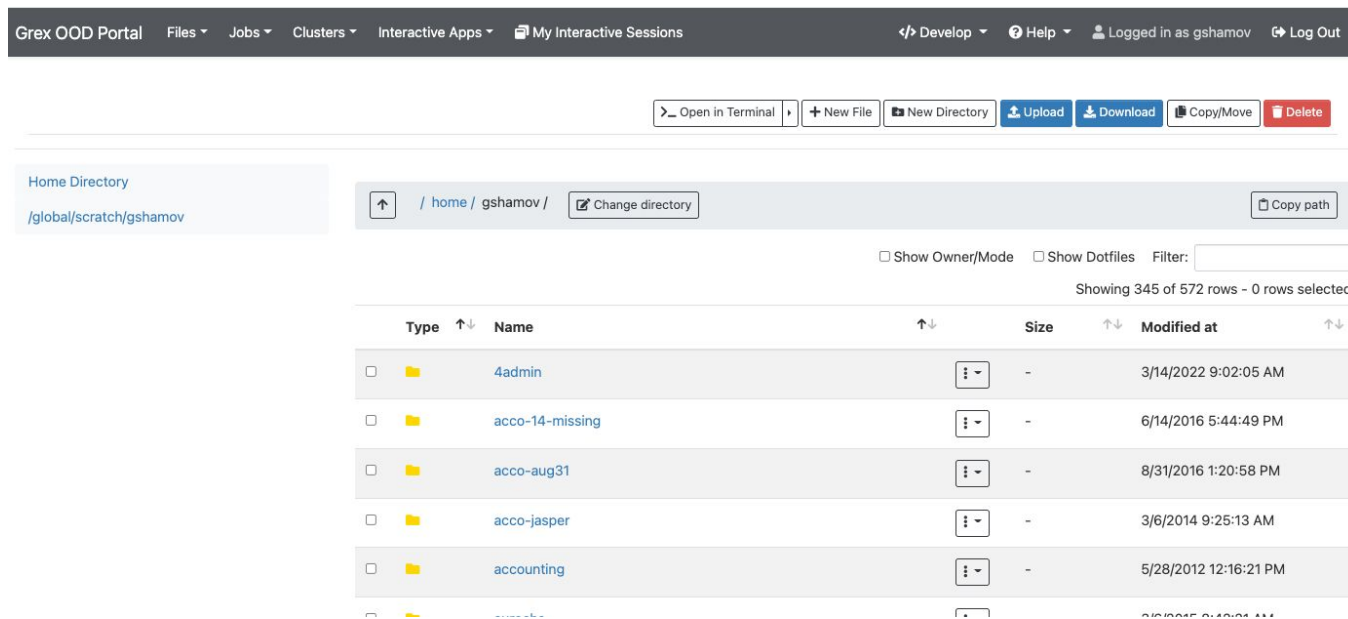
- <https://openondemand.org/> is an HPC Web portal, or a browser GUI for HPC systems
 - File management
 - Command-line shell access
 - Job management and monitoring across different batch servers and resource managers
 - Graphical desktop environments and desktop applications
- On Grex:
 - <https://aurochs.westgrid.ca> <https://aurochs.hpc.umanitoba.ca>
 - Still uses CCDB user IDs, not UMNNetID !
 - Available from within Campus network, or when on UM VPN
 - <https://umanitoba.ca/computing/ist/connect/virtualpn.html>
- Demo..



The screenshot shows the Grex OOD Portal interface. At the top, there is a navigation bar with the following items: Grex OOD Portal, Files, Jobs, Clusters, Interactive Apps, and My Interactive Sessions. Below the navigation bar is a large blue banner with the text "GREX, HPC AT UMANITOBA" and "OPENONDEMAND PORTAL" in white. Underneath the banner, a message reads: "OnDemand provides an integrated, single access point for all of your HPC resources." Below this is a section titled "Message of the Day" which contains a terminal-style welcome message. The message includes the text: "Welcome to GREX, University of Manitoba HPC Cluster", a link to "https://um-grex.github.io/grex-docs/", and contact information "Contact: support@computecanada.ca". It also includes an important note: "*** IMPORTANT *** Please make sure all your jobs do their large IO in /global/scratch/USERNAME and NOT /home/USERNAME".

<https://aurochs.hpc.umanitoba.ca> is an HPC Web portal, or a browser GUI for Grex

- File browser in Web browser



The screenshot shows the Grex OOD Portal interface. At the top, there is a navigation bar with links for 'Files', 'Jobs', 'Clusters', 'Interactive Apps', and 'My Interactive Sessions'. On the right side of the navigation bar, there are options for 'Develop', 'Help', 'Logged in as gshamov', and 'Log Out'. Below the navigation bar, there is a toolbar with buttons for 'Open in Terminal', 'New File', 'New Directory', 'Upload', 'Download', 'Copy/Move', and 'Delete'. The main content area shows the 'Home Directory' as '/global/scratch/gshamov'. The current directory is '/ home / gshamov /'. There are options to 'Change directory' and 'Copy path'. Below this, there are checkboxes for 'Show Owner/Mode' and 'Show Dotfiles', and a 'Filter:' input field. The main display is a table showing a list of files and directories. The table has columns for 'Type', 'Name', 'Size', and 'Modified at'. The table shows 345 of 572 rows, with 0 rows selected. The visible rows are:

Type	Name	Size	Modified at
Folder	4admin	-	3/14/2022 9:02:05 AM
Folder	acco-14-missing	-	6/14/2016 5:44:49 PM
Folder	acco-aug31	-	8/31/2016 1:20:58 PM
Folder	acco-jasper	-	3/6/2014 9:25:13 AM
Folder	accounting	-	5/28/2012 12:16:21 PM



<https://aurochs.hpc.umanitoba.ca> is an HPC Web portal, or a browser GUI for Grex

- Browser for the jobs in queue
- Allows for submitting job scripts from Web browser too. (But Apps are better)

GreX OOD Portal Files ▾ Jobs ▾ Clusters ▾ Interactive Apps ▾ My Interactive Sessions </> Develop ▾ ? Help ▾ Logged in as gshamov Log Out

Active Jobs

Your Jobs ▾ All Clusters ▾

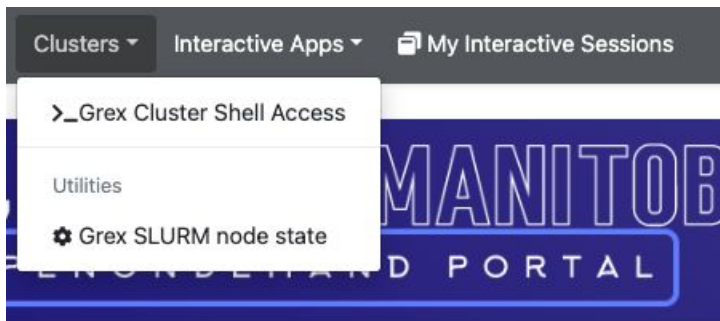
Show entries Filter:

ID	Name	User	Account	Time Used	Queue	Status	Cluster	Actions
> 4945702	sys/dashboard/sys/jupyter_gcc	gshamov	def-gshamov	00:10:19	skylake	Running	GreX Cluster	

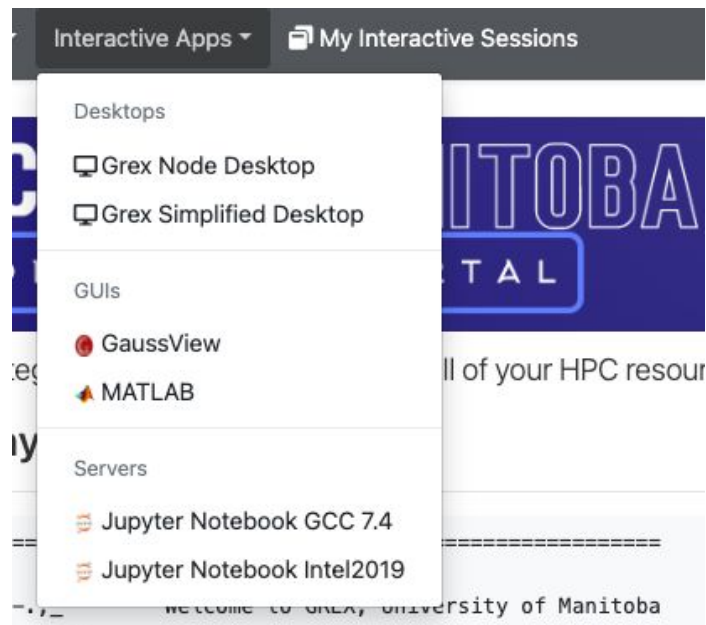
Showing 1 to 1 of 1 entries Previous 1 Next



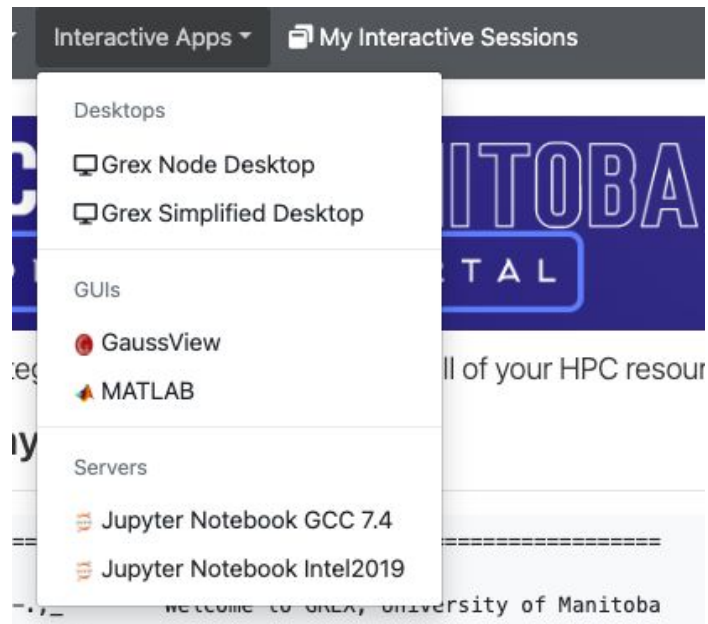
- <https://aurochs.hpc.umanitoba.ca> is an HPC Web portal, or a browser GUI for Grex
 - Simple SSH shell in-browser, on a login node is available
 - Desktops
 - on compute nodes (Lightweight GUIs like on X2go)
 - On special test node (Easiest, better GUIs)
 - Apps: GV, Matlab, Jupyter Notebooks



Provides an integrated, single access point for all of your HPC r



- <https://aurochs.hpc.umanitoba.ca> is an HPC Web portal, or a browser GUI for Grex
- Desktops for contributed partitions
 - For Research groups that contribute hardware
 - Only visible for the group members
 - Presently, work as Simplified GPU desktop





- <https://aurochs.hpc.umanitoba.ca> is an HPC Web portal, ora browser GUI for Grex
 - Apps and Desktops are running as SLURM jobs
 - Jobs create Interactive Sessions when start.
 - Desktop Sessions (like, Matlab or GaussView) talk to OOD Portal via NoVNC protocol.
You can connect to Sessions, terminate them etc.

The screenshot displays a web portal interface for managing interactive sessions. At the top, a green notification bar states "Session was successfully created." Below this is a breadcrumb trail: "Home / My Interactive Sessions".

The main content area is divided into two columns. The left column, titled "Interactive Apps", contains a list of session types: "Desktops" (with sub-items "Grex Node Desktop" and "Grex Simplified Desktop"), "GUIs" (with "GaussView" and "MATLAB"), and "Servers" (with "Jupyter Notebook GCC 7.4" and "Jupyter Notebook Intel2019").

The right column shows details for a specific session: "Jupyter Notebook GCC 7.4 (4945702)". This session is currently "Running" on "1 node" and "4 cores". It includes the following information:

- Host: n339
- Created at: 2022-05-02 13:53:22 CDT
- Time Remaining: 59 minutes
- Session ID: e09060bc-4e15-48aa-b99b-a81ae849dac6

A "Delete" button is visible next to the session details. At the bottom of the session details, there is a blue button labeled "Connect to Jupyter".



- <https://aurochs.hpc.umanitoba.ca> is an HPC Web portal, or a browser GUI for Grex
 - Apps and Desktops are running as SLURM jobs
 - JuPyteR is an example of a server application
 - JuPyteR Web notebook/sessions are forwarded via OOD's proxy mechanism
 - Some “Kernels” (R, Julia, etc.) need to be user-installed first!
 - https://docs.alliancecan.ca/wiki/JupyterNotebook#Adding_kernels

Session was successfully created. ✕

Home / My Interactive Sessions

Interactive Apps

- Desktops
 - ☐ Grex Node Desktop
 - ☐ Grex Simplified Desktop
- GUIs
 - GaussView
 - ▲ MATLAB
- Servers
 - ☰ Jupyter Notebook GCC 7.4
 - ☰ Jupyter Notebook Intel2019

Jupyter Notebook GCC 7.4 (4945702) 1 node | 4 cores | Running

Host: n339 🗑 Delete

Created at: 2022-05-02 13:53:22 CDT

Time Remaining: 59 minutes

Session ID: e09060bc-4e15-48aa-b99b-a81ae849dac6

[👁 Connect to Jupyter](#)



Bad Request

Login session expired.

- <https://aurochs.hpc.umanitoba.ca/> gives a Bad Request message to the left:
 - Old Dex session it kept in browser cache; clean cache, restart browser
 - Re-type aurochs.hpc.umanitoba.ca w/o the session key parameter
- Timeout messages when loading Desktop Apps or starting jobs
 - Keep hitting Reload
 - Use “test” partition for simple Desktop
- No /home and /global/scratch for new Grex users
 - Connect first time via command line SSH; a script creates them on first SSH login
- Inconvenient time limits for Desktop app
 - Contact us, we are now trying to optimize these things
- An Application X would be useful to have on Grex
 - Contact us, we are working on expanding the list of Apps.