

Trainstation

An orchestration system for
frictionless delivery of
programming and HPC
training

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Agenda

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- Context

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- Trainstation

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- Trainstation
- Slurm and Docker



48 staff
nationwide

Physical presence in
NSW, SA, VIC, ACT

Established in 2008

Intersect Australia

Not-for-profit National eResearch
Organisation



Close Collaborators



Context

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- 2012: HPC courses using our own cluster

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- 2016: Nectar VMs for training
- 2022: Trainstation

Lessons

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- Minimise the number of things someone has to remember
- Minimise inconsistency among learners and trainers
- Refer learners to installation guides and offer post-training assistance

File Edit View Run Kernel Tabs Settings Help

Python/PYTHON101/data

Name	Modified
inflammation-01.csv	8 months ago
inflammation-02.csv	8 months ago
inflammation-03.csv	8 months ago
inflammation-04.csv	8 months ago
inflammation-05.csv	8 months ago
inflammation-06.csv	8 months ago
inflammation-07.csv	8 months ago
inflammation-08.csv	8 months ago
inflammation-09.csv	8 months ago
inflammation-10.csv	8 months ago
inflammation-11.csv	8 months ago
inflammation-12.csv	8 months ago
small-01.csv	8 months ago
small-02.csv	8 months ago
small-03.csv	8 months ago

Python/PYTHON101/data

Notebook

Python 3 (ipykernel)

Console

Python 3 (ipykernel)

Other

Terminal Text File Markdown File Python File Show Contextual Help

Simple 1 0 Launcher 1

Unix Shell and Command Line Basics at Deakin

Code	UNIX101
Location	Deakin
Date	2025-08-28
Node	trainstation3 Log in

- [Sync Attendees](#)
- [Add Attendee](#)
- [Email All Credentials](#)

[← All Courses](#)

Show entries

Search:

Name	Email	Username	Password	Account	Status	Actions	Credentials Sent
Alexander Clark	alexander.clark@deakin.edu.au	alexcl	Clarkalex12345	Provisioned	Enrolled	Email Credentials	2025-08-28
Alice Thompson	alice.thompson@deakin.edu.au	alicet	ThompsonA1234	Provisioned	Enrolled	Email Credentials	2025-08-28
Henry Lee	henry.lee@deakin.edu.au	henryl	Leehenry12345	Provisioned	Enrolled	Email Credentials	2025-08-28
Isabella Brown	isabella.brown@deakin.edu.au	isabellab	Browni123456	Provisioned	Enrolled	Email Credentials	2025-08-28
William O'Sullivan	william.osullivan@deakin.edu.au	williams	O'SullivanW123	Provisioned	Enrolled	Email Credentials	2025-08-28

HPC Training

HPC Training

- Orange/Raijin/Gadi for PBS

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- 2018: Phoenix (Adelaide)

HPC Training

- Orange/Raijin/Gadi for PBS
- 2018: Phoenix (Adelaide)
- 2021: SDC (DCCEEW)

CATCH-22



A NOVEL BY



JOSEPH HELLER

Slurm + Docker (Slocker?)

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- User accounts created prior to the course

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- Credentials sent to attendees via email

Slurm + Docker (Slocker?)

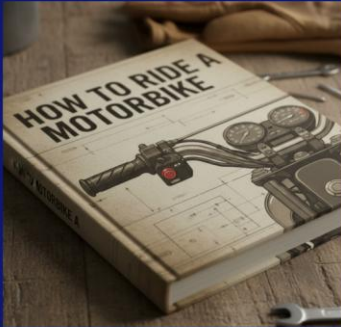
- Containerised Slurm cluster
- User accounts created prior to the course
- Credentials sent to attendees via email
- Learners isolated from real users

Slurm + Docker (Slocker?)

- Possible downside: Onboarding still required

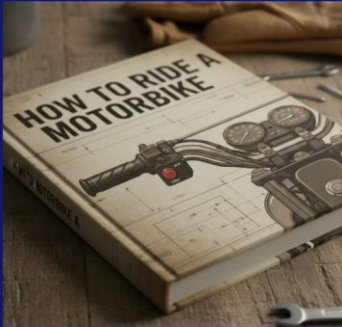
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- System agnostic course materials
- Separation of core skills from onboarding
- Less burden for HPC Admins
- Admins can outsource the basic training

Next steps

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- Wider rollout

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- PBS Pro

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- Wider rollout
- PBS Pro
- More advanced courses



INTERSECT

Our 2024 training report:



zenodo.org/records/15645348