iCER SERVICE REPORT

RESEARCHERS USED ICER SERVICES

850

Compute 92%

Support 28%
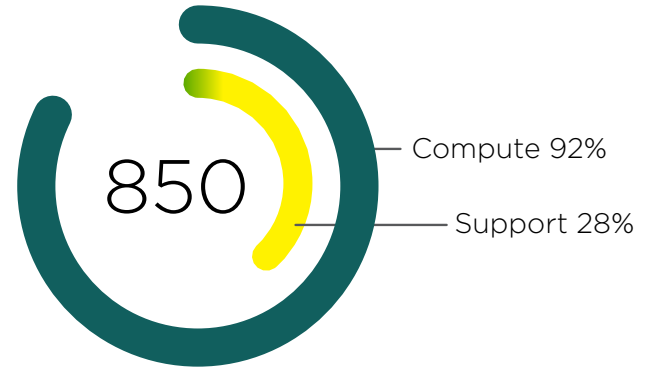
Developer/Login Nodes   **Batch Queue**   **Mapped Home Drive/Samba**

NUMBER OF USERS USING iCER COMPUTE SERVICES

127   314   231

35

18   15

38
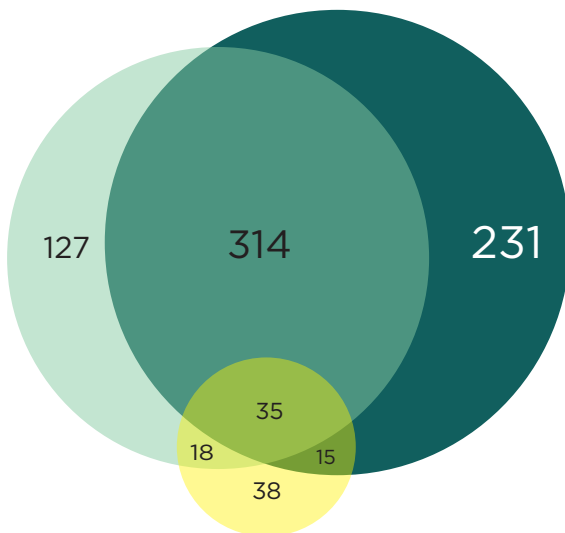
This figure shows a breakdown of users that use iCER compute services:

349 users (314+35) use the developer nodes to submit jobs to the queue.

246 interactive users (231+15) only use iCER developer nodes to do their work. This includes users:
> Only need access to software (ex. Matlab, mathematica)
> Still in software development process and have not submitted a job
> Find development nodes are sufficient for their research.

38 users only used the iCER file systems to store their files.

284 researchers (231+15+38) used iCER hardware outside of the batch queue.
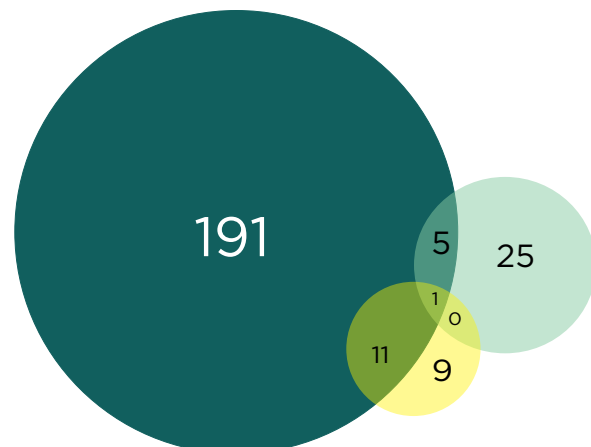

NUMBER OF USERS USING ICER SUPPORT SERVICES

This figure shows a breakdown of users that use iCER support services. These support services include support tickets, iCER workshops and office hours.
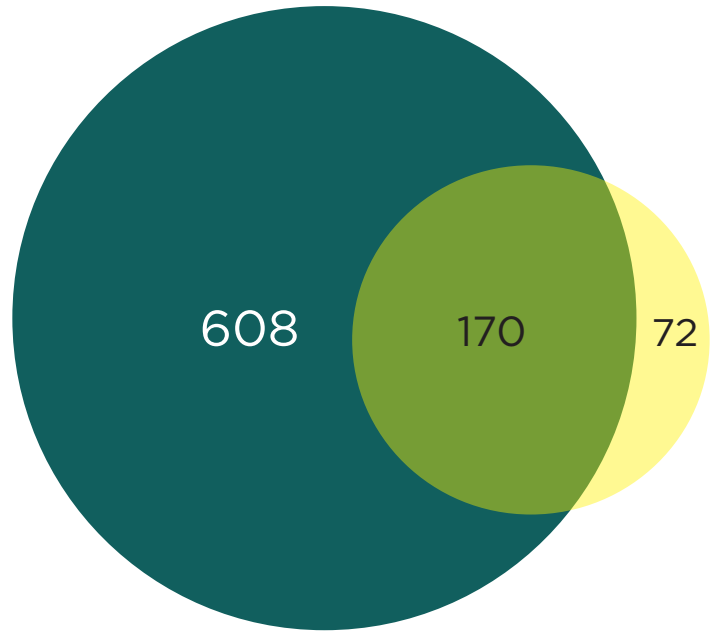
List of iCER workshops in May:

> Introduction to HPCC
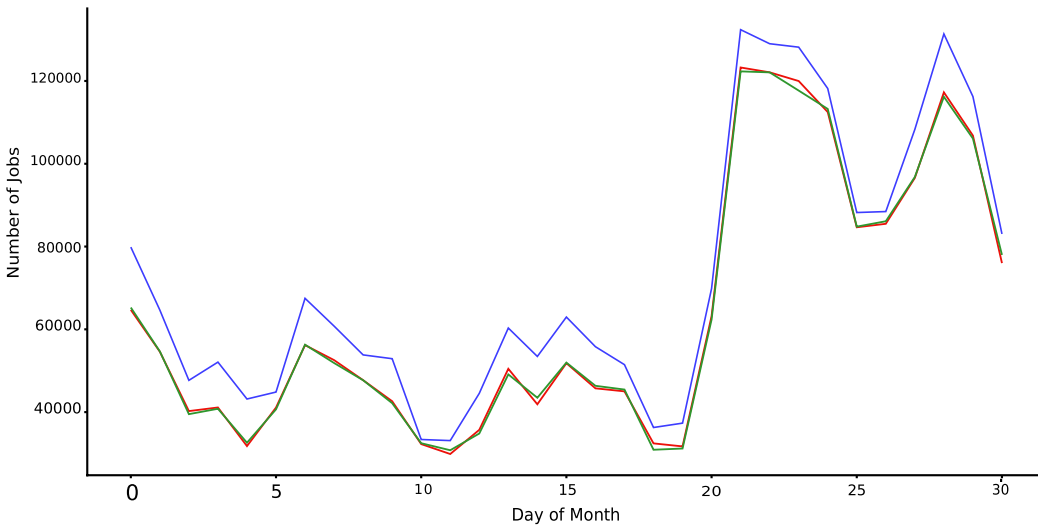> Introduction to Linux

Tickets   **Workshops**   **Office Hour**

191   5   25

1
0

11

9

COMPARISON BETWEEN NUMBER OF USERS USING ICER SUPPORT AND COMPUTE SERVICE

608   170   72

■ Compute

■ Support

DAILY SCHEDULER ACTIVITY

— Queued   — Start   — Finish

Number of Jobs

120000

100000

80000

60000

40000

0   5   10   15   20   25   30
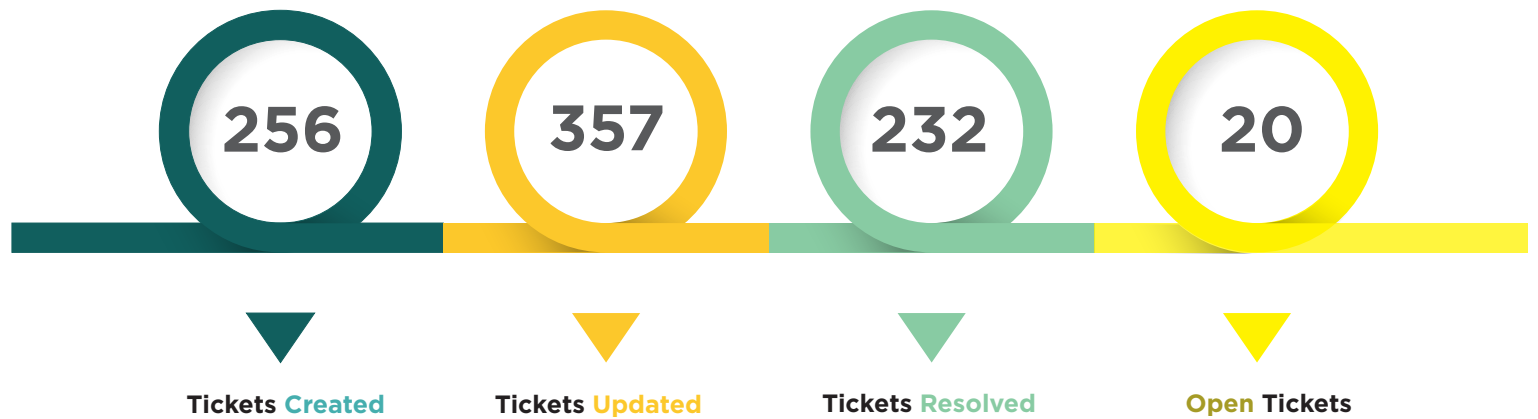
Day of Month

On a typical day, the scheduler processes approximately 183,433 jobs. This includes jobs that are queued, jobs that start and jobs that end. Put in another way, the scheduler manages approximately 127 jobs per minute.

NUMBER OF MAPPED HOME DIRECTORIES PER SERVER

35

30

25

20

15

10

ufs-13-a   ufs-11-b   ufs-11-a   ufs-12-a   ufs-13-b   ufs-12-b
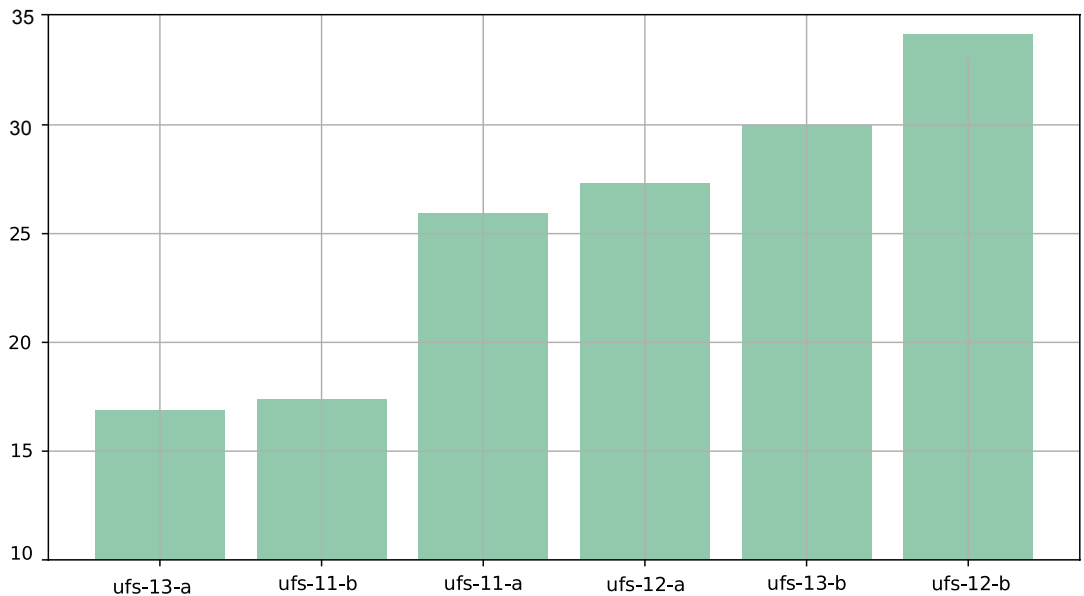
TICKET ACTIVITY SUMMARY

256
357
232
20

Tickets **Created**

Tickets **Updated**

Tickets **Resolved**

Open Tickets

TICKET MESSAGE SUMMARY

534

Total Users' Messages

644

Total iCER's Messages

MARCH TICKET HIGHLIGHTS

XIAOGE WANG

Research Consultant

LICENSED SOFTWARE USAGE ON HPCC

TICKET RESOLUTION STATISTIC

22.60%

42.51%

9.84%

447

Messages answered in May

16.11%

8.95%
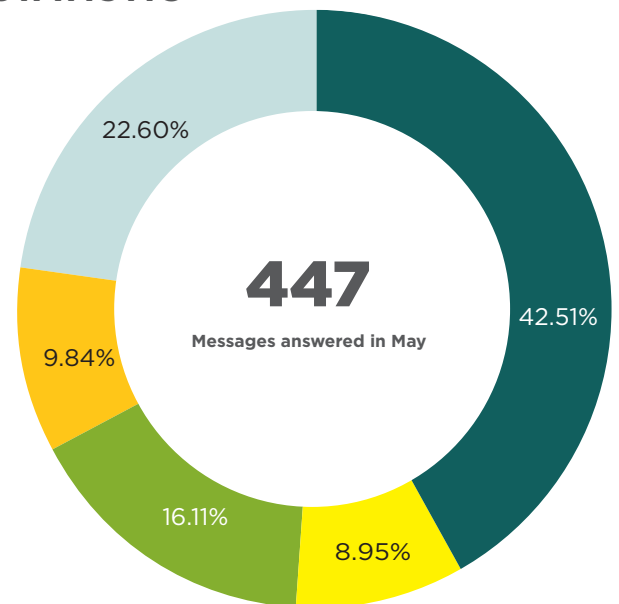
■ Messages answered within 5 hours

■ Messages answered within 5 - 12 hours

■ Messages answered within 12 hours - 24 hours

■ Messages answered within 24 hours - 2 day

■ Messages answered in more than 2 days
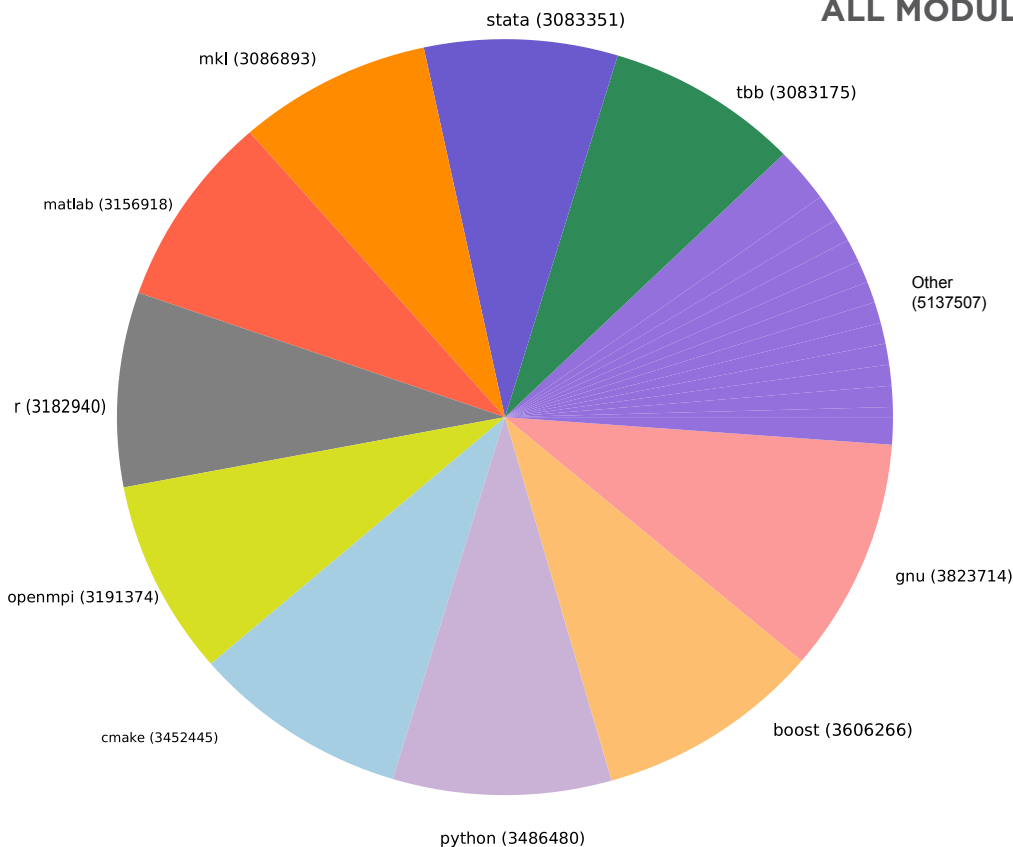
72

**New User Accounts created**

in May

In an effort to better serve our users, we have been analyzing the software that is being used on the HPC by recording which software modules are being loaded using the "module load" command. Clearly this is not a complete view; many users install their own software in their home directories, some modules are automatically loaded as part of a user profile and there will be a bias toward pleasantly parallel codes which will load their required modules every time a job runs (as compared to bigger jobs which would only load the modules once). However, we find this data interesting and wanted to share it with you.

ALL MODULE LOAD COUNTS <10000000

stata (3083351)
mkl (3086893)
tbb (3083175)
matlab (3156918)
Other (5137507)
r (3182940)
openmpi (3191374)
cmake (3452445)
python (3486480)
boost (3606266)
gnu (3823714)

The pie chart shows the most commonly loaded modules. Note again that the biggest ones are the ones included in a user's default profile such as MATLAB, Python, and R. These modules get loaded every time they log in or run a job. As can be seen clearly, the default modules get loaded in an order of magnitude more than many of the other modules.

ALL MODULE LOAD COUNTS <100000
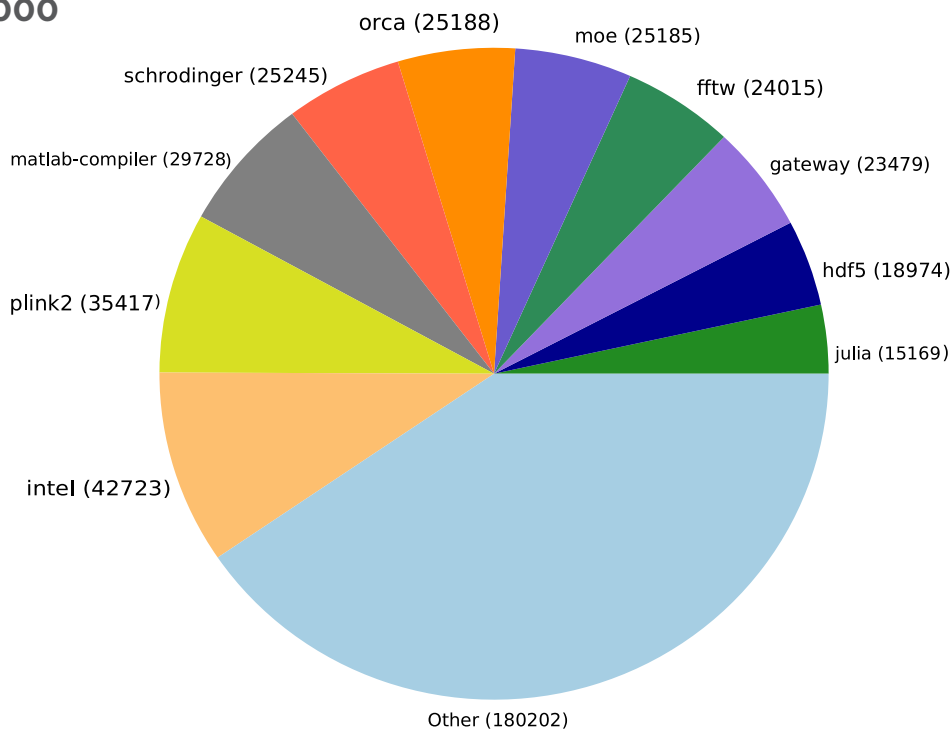
After taking out the default modules, the pie chart on the right shows more modules that users are choosing to include in their .bashrc files and being submitted on a lot of jobs.

orca (25188)
moe (25185)
schrodinger (25245)
fftw (24015)
matlab-compiler (29728)
gateway (23479)
plink2 (35417)
hdf5 (18974)
julia (15169)
intel (42723)
Other (180202)

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