

Getting Into Research Computing @ Ole Miss

2007-08



The University of Mississippi Office of Information Technology (IT), in conjunction with the Mississippi Center for Supercomputing Research (MCSR), offers alternative research computing tools, systems, training, and support to the UM campus.

Getting Computing Accounts for Research or Classes

Free UNIX/Linux accounts are available to all UM students and employees on the research server willow, and on any of MCSR's three supercomputers and cluster systems: redwood, sweetgum, and mimosa. To learn more about these systems or to apply online for an account, visit www.mcsr.olemiss.edu. One-semester class accounts are available for instructional support; instructors should e-mail the class roll to assist@mcsr.olemiss.edu. Please allow 1-3 days for provisioning of research account requests, and one week for class accounts.

Getting Connected

In addition to the commodity Internet, the UM campus is connected to two high speed research networks: the Internet2 Network and the National LambdaRail. To learn more about these connections and how they could impact your bandwidth-intensive research needs, visit www.olemiss.edu/projects/internet2/ or e-mail assist@mcsr.olemiss.edu.

Getting Help

For assistance with SPSS, SAS, or Mathematica installations, contact the UM IT Helpdesk: **915-5222** or helpdesk@olemiss.edu.

For assistance using installed software, or installing other packages, to schedule group training sessions, or to request a statistical consultation, e-mail assist@mcsr.olemiss.edu.

To reserve the Weir PC Teaching Lab, visit www.olemiss.edu/ftdc/.

MCSR Web site: www.mcsr.olemiss.edu

IT Web site: www.olemiss.edu/depts/it/

Getting Information Updates

MCSR/IT maintains mailing lists to notify interested users about training opportunities, systems outages, and instructions regarding upgrades to Mathematica, SPSS and SAS, and other MCSR/IT research software and systems. E-mail assist@olemiss.edu to subscribe to one of these lists, or to receive MCSR's quarterly e-newsletter, *The Parallel-O-Gram*.



www.mcsr.olemiss.edu

"This one time, at stats camp...my friend and I decided to run if we could predict which of with this one cute guy who knew



Getting a Clue about Statistics

Do you need help accessing, importing, or analyzing data for a dissertation or other research project? MCSR/IT statistical consultants are available to help you get started with your SAS or SPSS data set, or to help you determine which statistical methods make sense for your research question. With advisor approval, one to three free consultations are available per project.

Math and Statistical Software

Getting Mathematica

Under our campus site-license, Mathematica may be installed on any computer owned by the university or by any UM student or employee. Windows and Mac users can download the installation package and instructions for the latest version of Mathematica from the Tools tab of the Online Services Web page at <https://secure.olemiss.edu/services/>. Linux and UNIX copies are also available.

Getting SAS

A limited number of desktop SAS licenses are available for purchase from IT at the substantially discounted rate of \$75.00 per year. Several PC SAS licenses are also available for graduate students enrolled in departments who have licensed these discounted SAS copies. SAS is available on all computers in the Weir PC Teaching Lab and a few of the PCs in the Weir Student Lab and is also available on the UNIX-based UM research server, willow, with access to many gigabytes of disk space. Because UM is an Early Adopter of SAS OnDemand for Academics, SAS Enterprise Guide is available at no cost to participating instructors and their students through the 2008-09 academic year. (SAS will be on campus September 21, 2007, to present a free, hands-on afternoon workshop in SAS Enterprise Guide. E-mail assist@mcsr.olemiss.edu to sign-up.)

Getting SPSS

A 110-user network license for SPSS for Windows, including Base, Advanced, and Regression modules, enables unlimited installation of this software on university-owned computers. UM employees can download the installation package and instructions for the latest version from the Tools tab of the Online Services Web page at <https://secure.olemiss.edu/services/>. SPSS is installed in the Student and PC Teaching labs in Weir Hall, as well as in several departmental labs.

Getting IMSL and PV-WAVE

A state-wide license enables any employee or student at UM or any other MS university to access and install IMSL libraries and PV-WAVE products. Developed by Visual Numerics, Inc., the IMSL libraries are a comprehensive set of mathematical and statistical functions that programmers can embed into their C, Fortran, or Java software applications. The PV-WAVE family of products, which includes PV-WAVE, JWAVE and TS-WAVE, is a suite of development solutions that allows users to rapidly import, manipulate, analyze and visualize data of any size and complexity. (VNI will be on campus September 6-7, 2007, to give an IMSL presentation and a free 8-hour crash-course workshop in PV-WAVE. E-mail assist@mcsr.olemiss.edu to reserve your seat.)

"I passed my final defense yesterday afternoon. Thank you so much help. My committee members were pleased with my final draft."

Getting Training

MCSR and IT consultants offer short seminars each week on research computing topics. These free seminars/help sessions are organized by category into three series, or “camps”: Math Camp, Stats Camp, and UNIX Camp. They are intended to be fun and informative, while introducing the tools and consultants that are always available in support of computational research or learning at Ole Miss. Time is reserved at the conclusion of each presentation as a help-session, where attendees may ask questions about any software tool supported by MCSR/IT. Most presentations are hands-on and are held at two different times during the week to better accommodate diverse schedules. Refreshments are served when presentations are given by guest researchers from outside our department. Attendees who help liven up these sessions with questions, tips, or extra enthusiasm may be rewarded with small techie prizes; higher-value prizes are given away at the end of each semester to a randomly chosen camper. For these regularly scheduled camps, seating is first-come, first-served, with no reservations taken. At your request, consultants can also give these seminars to other classes or departments throughout the semester. To schedule a special seminar, please e-mail at least one week in advance to assist@mcsr.olemiss.edu. For the most up-to-date Math/Stats/UNIX camp schedules, click “Math/Stats Camp” at www.mcsr.olemiss.edu.



Cool Camp Prizes

- Math Dice
- Spark Charts (Unix, Calculus, Statistics, etc.)
- MCSR Pens
- Puzzles
- Starbucks Gift Cards
- iTunes Store Downloads:
 - Songs: “My Mathematical Mind” – Spoon, “Seventh Son” – Mose Allison, “She Blinded Me with Science” – Thomas Dolby
 - The West Wing Episode: “Lies, Damn Lies, and Statistics”
 - Schoolhouse Rock Episodes: “Figure Eight,” “Naughty Number Nine,” etc.
- USB Flash Drives

BottleTree Bakery will provide cookies on guest presentation days.

Math Camp

In Math Camp seminars, you will learn about features of Mathematica, IMSL, PV-WAVE, MATLAB, or one of the other mathematical packages available at Ole Miss.

Stats Camp

In Stats Camp seminars, you will learn how to employ SAS, IMSL, JMSL, or SPSS in your statistical analyses.

Unix Camp

In Unix Camp, you will get practice navigating UNIX and Linux shells and utilities and compiling programs in a UNIX/Linux environment.

Accessing Other Software

Other research software tools are available, including: Abaqus, MATLAB, FORTRAN, C/C++, Java, Python, MPI, OpenMP, MySQL, PHP, Perl, Gaussian 03, Amber, GAMESS, CPMD, NWChem, MPQC, and GROMACS. For more information about the latest tools and versions available, see www.mcsr.olemiss.edu/apps.php.

for your
—Training Participant

Training Camp Schedule

* Guest Presentation
 !! = Reservations Required
 EG = Enterprise Guide
 Matica = Mathematica

MONDAYS: Weir 104	TUESDAYS	WEDNESDAYS: Weir 107	THURSDAYS: Weir 104	FRIDAYS: Weir 107
AUGUST/SEPTEMBER				
27 UNIX 1 3-4 pm	28	29 Intro Matica 3-4 pm SPSS Intro 4-5 pm	30 UNIX 1 4-5 pm	31 New Matica 6 3-4 pm
3	4	5	6 IMSL Info 9:30-11:30 am VNI PV-WAVE 1 *!! 1-5 pm	7 VNI PV-WAVE 2 *!! 8 am-Noon
17 UNIX 2 3-4 pm	18	19 Authoring Matica 3-4 pm SAS Intro 4-5pm	20 UNIX 2 4-5 pm	21 SAS EG* 2-5 pm
24 Tcsh Scripts 3-4 pm	25	26 SAS Graphs 4-5 pm	27	28 SPSS T-Tests* 2-5 pm

OCTOBER/NOVEMBER				
1 MAC OS X* 3-4 pm	2	3 Prgrmg Matica 3-4 pm SAS SQL 4-5 pm	4	5 SAS Correlations 3-4 pm GUIKit Matica 4-5 pm
8 C/C ++ Compiling 3-4 pm	9	10	11	12 SAS Regression Tests 3-4 pm
15 FORTRAN 3-4 pm	16	17 Stats Matica 3-4 pm SAS Linear 4-5 pm	18 C/C ++ Compiling 4-5 pm	19 SAS Non-linear Regression 3-4 pm Prgrmg Matica 4-5 pm
22 Ssh, Rcp, & Scp 3-4 pm	23	24 Integrals Matica 3-4 pm SAS Mortgage 4-5 pm	25 FORTRAN 4-5 pm	26 SAS Auto-Regression 3-4 pm Integrals Matica 4-5 pm
29 Vi Editor 3-4 pm	30	31 LinkedSliders in Matica 3-4 pm SAS ODS* 4-5 pm	1 Emacs Editor 4-5 pm	2 SAS/SPSS File Formats 3-4 pm Stats Matica 4-5 pm
5 Python* 4-5 pm	6	7 Central Limit 3-4 pm SAS Regression Tests 4-5 pm	8	9
12 Sed* 3-4 pm	13	14 GUIKit Matica 3-4 pm SAS Auto-Regression 4-5 pm	15	16
26 Intel Compiler 3-4 pm	27	28 Central Limit 3-4 pm SAS Non-Linear Regression 4-5 pm	29 Vi Editor 4-5 pm	30 SAS Mortgage 3-4 pm

JANUARY/FEBRUARY				
21	22	23 Intro Matica 3-4 pm SAS Intro 4-5 pm	24	25 SPSS Intro 3-4 pm Matica Demos 4-5 pm
28 UNIX 1 3-4 pm	29	30 IMSL 3-4 pm SPSS Intro 4-5 pm	31 UNIX 1 4-5 pm	1 SAS Intro 3-4 pm MATLAB Prgrmg 4-5 pm
4 UNIX 2 3-4 pm	5	6 PV-WAVE 3-4 pm SAS Faculty Resources 4-5 pm	7 UNIX 2 4-5 pm	8 SAS Student Resources 3-4 MATLAB Graphing 4-5 pm
11 Bash Scripts 3-4 pm	12	13 JMSL 3-4 pm IMSL C Intro 4-5 pm	14 Tcsh Scripts 4-5 pm	15 IMSL FORTRAN 3-4 pm Java & Matica 4-5 pm
18 C Debugging 3-4 pm	19	20 Cmd Line Matica 3-4 pm SAS EG 4-5 pm	21 FORTRAN Debugging 4-5 pm	22 SPSS Graphs 3-4 pm WebMatica 4-5 pm
25 Perl 1 3-4 pm	26	27 WebMatica 3-4 pm SPSS Data Editor 4-5 pm	28 Perl 2 4-5 pm	29 SAS EG 3-4 pm Functional Prgrmg 4-5 pm

MARCH/APRIL				
3 X-Win32 3-4 pm	4	5 Functional Prgrmg 3-4 pm SPSS Graphs 4-5 pm	6 Ssh, Rcp, & Rsh 4-5 pm	7 SPSS Data Editor 3-4 pm Matica Player 4-5 pm
17 Awk* 3-4 pm	18	19 Math Quiz Generators 3-4 pm SPSS/SAS Formats 4-5 pm	20	21 SPSS Categorical Data 3-4 pm
24 MPI 3-4 pm	25	26 MATLAB Prgrmg 3-4 pm SPSS Regression 4-5 pm	27 OpenMP 4-5 pm	28 SPSS/SAS Formats 3-4 pm Pattern Matching Matica 4-5 pm
31 OpenMP 3-4 pm	1	2 MATLAB Graphing 3-4 pm SPSS Non-Normal 4-5 pm	3 Cmd Line Matica 4-5 pm	4 SPSS/SAS Regress 3-4 pm Matica Stats 4-5 pm
7 TeX & LaTeX* 3-4 pm	8	9 Matica Functional 3-4 pm SPSS IntroHTML Reports 4-5 pm	10 MATLAB Cmd Line 4-5 pm	11 SPSS Non-Normal 3-4 pm PV-WAVE 4-5 pm
14 Cmd Ln Math Weir 3-4 pm	15	16 Matica Pattern Matching 3-4 pm SPSS Categorical Data 4-5	17 MPI 4-5 pm	18 SPSS HTML Reports 3-4 pm IMSL 4-5 pm
21 MATLAB Cmd Line 3-4 pm	22	23 Stats in Matica 3-4 pm JMSL 4-5 pm	24 OpenMP 4-5 pm	25 SAS on Willow 3-4 pm JMSL 4-5 pm
28 GRID Computing 3-4 pm	29	30 Matica Web Services 3-4 pm SAS EG 4-5 pm		