

# Network Concurrent Licenses

## Software License Compliance

Please be aware that each licensed product has end-user specific compliance constraints. A common constraint is that the cluster installed software is intended for non-commercial academic use such as research and/or teaching. Specifics vary and if you believe there are possible issues around your situation, feel free to contact [cluster-support@tufts.edu](mailto:cluster-support@tufts.edu) via email to discuss this further.

In addition, be aware that use of licensed software requires a specific citation format for publication. This varies by software and you should check the vendor/author for suggestions. This is often found in the documentation or on the vendor website. For HPC public domain codes, refer to the website and or included information in the software distribution.

For example, a specific citation regarding the use of Gaussian 09 software:

Gaussian 09, Revision D.01,  
M. J. Frisch, G. W. Trucks, H. B. Schlegel, G. E. Scuseria,  
M. A. Robb, J. R. Cheeseman, G. Scalmani, V. Barone, B. Mennucci,  
G. A. Petersson, H. Nakatsuji, M. Caricato, X. Li, H. P. Hratchian,  
A. F. Izmaylov, J. Bloino, G. Zheng, J. L. Sonnenberg, M. Hada,  
M. Ehara, K. Toyota, R. Fukuda, J. Hasegawa, M. Ishida, T. Nakajima,  
Y. Honda, O. Kitao, H. Nakai, T. Vreven, J. A. Montgomery, Jr.,  
J. E. Peralta, F. Ogliaro, M. Bearpark, J. J. Heyd, E. Brothers,  
K. N. Kudin, V. N. Staroverov, T. Keith, R. Kobayashi, J. Normand,  
K. Raghavachari, A. Rendell, J. C. Burant, S. S. Iyengar, J. Tomasi,  
M. Cossi, N. Rega, J. M. Millam, M. Klene, J. E. Knox, J. B. Cross,  
V. Bakken, C. Adamo, J. Jaramillo, R. Gomperts, R. E. Stratmann,  
O. Yazyev, A. J. Austin, R. Cammi, C. Pomelli, J. W. Ochterski,  
R. L. Martin, K. Morokuma, V. G. Zakrzewski, G. A. Voth,  
P. Salvador, J. J. Dannenberg, S. Dapprich, A. D. Daniels,  
O. Farkas, J. B. Foresman, J. V. Ortiz, J. Cioslowski,  
and D. J. Fox, Gaussian, Inc., Wallingford CT, 2013.

## Network Concurrent Software Licenses

Network concurrent licenses are a class of licenses that grants access to a Tufts network attached software client installed on remote hardware. However, not all cluster software is of this type. Concurrent network licenses are chosen to allow flexible use by a larger user-base than the number of licenses offered. As a result, most of the licensed software on the cluster is "shared" within Tufts. In effect, access is possible for Tufts owned workstations found in various computer labs and faculty desktops. These licenses were scaled to support research work and not classroom or instructional use. As a result, there is no guarantee of obtaining a fixed number of licenses. Access is first come, first served.

The following software license count is as follows:

Software	Concurrent seat count	FlexLM license server port	License server(s)
Matlab(base)	85	50002	matlab-lm01.uit.tufts.edu, matlab-lm02.uit.tufts.edu, matlab-lm03.uit.tufts.edu
Comsol	5	50003	comsol-lm01.uit.tufts.edu, comsol-lm02.uit.tufts.edu, comsol-lm03.uit.tufts.edu
Mathematica	20	16286	mathematica-lm01.uit.tufts.edu
Abaqus	8	50005	abaqus-lm01.uit.tufts.edu, abaqus-lm02.uit.tufts.edu, abaqus-lm03.uit.tufts.edu
Ansys	5	50000	ansys-lm01.uit.tufts.edu, ansys-lm02.uit.tufts.edu, ansys-lm03.uit.tufts.edu
Maple	5	50004	maple-lm01.uit.tufts.edu, maple-lm02.uit.tufts.edu, maple-lm03.uit.tufts.edu
Stata	2	NA	NA

Portland Compilers	5	50006	pgi-lm01.uit.tufts.edu, pgi-lm02.uit.tufts.edu, pgi-lm03.uit.tufts.edu
Intel	2	50007	intel-lm01.uit.tufts.edu, intel-lm02.uit.tufts.edu, intel-lm03.uit.tufts.edu
SigmaPlot	10	NA	licenses01.atech.tufts.edu (see note)
TecPlot	6	50010	tecplot-lm01.uit.tufts.edu
IDL	60	50008	idl-lm01.uit.tufts.edu, idl-lm02.uit.tufts.edu, idl-lm03.uit.tufts.edu
CLCBio	5	6200	clc-lm01.uit.tufts.edu

In most cases software on the research cluster is supported by a 3-head redundant FlexLM license server. This makes possible uninterrupted 24x7 license service requests by software clients.

**NOTE:** Authenticated access is restricted to the Tufts network domain.

The license servers are fire-walled to only allow connections from within Tufts. If a user wishes to run one of these applications remotely they will need to use Tufts VPN to connect to Tufts first, at which point they should be able to check out licenses.

**NOTE:** Older flexlm server C-names: lm01.uit.tufts.edu, lm02.uit.tufts.edu, lm03.uit.tufts.edu are now pointing to new servers, but new installations should use the above information.

**SigmaPlot:**

On Windows machines two environment variables needed are:

**LSFORCEHOST licenses01.atech.tufts.edu**

**LSHOST licenses01.atech.tufts.edu**

**CLCBio Main Workbench**

This software is user configured during installation by choosing network concurrent license server. Either provide the above info or allow software to discover settings.

## IMPORTANT NOTICE

Many of the above license are limited. Concurrent usage can become a problem if these limits are exceeded. Please do not submit a number of jobs that exceed the size of the licenses. Bad things will happen such as no access! If you intend to do simulations requiring many licenses, please contact cluster-support@tufts.edu and let us know what you intend to do.

## Tufts Participation & Network Licenses Eligibility

Condition of use	Matlab	Comsol	Mathematica	Abaqus	Ansys	Sigmaplot	Stata/SE	Maple	TecPlot
<b>Eligibility</b>									
Tufts Faculty may access	y	y	y	y	y	y	y	y	y
Tufts graduate students may access	y	y	y	y	y		y	y	y
Tufts undergraduate students may access	y	y	y	y	y		y	n(see below#1)	y

Tufts research staff may access	y	y	y	y	y		y	y	y(see below #1)
Tufts administrative staff may access	y	y	y	y	n		y	y	y(see below #2)
<b>Installs</b>									
Installation only on Tufts owned hardware	y	y	n	y	y		y(see below #1)	y	n
Installation on Tufts Faculty owned hardware	y	y	y	y	y		n	y	y
Installation on Tufts student owned hardware	n	n	y	y	y		n	n	y
Installation on Tufts Research Staff owned hardware	y	n	y	y	y		n	y	y(see below #3)
<b>Access</b>									
Access only within Tufts IP domain 130.64.x.x.	y	y	n	y(see below #1)	y		y(see below #1)	y	y
Access outside of Tufts IP domain via VPN	y	y	y	y(see below #1)	y(see below)		y	n	y
Access outside of Tufts IP domain via SSH	y	y	y	y(see below #1)	y(see below)		y	n	y
<b>Use</b>									
May be used in support of teaching undergraduates	y	y	y	y	y		y	y	y
May be used in support of teaching graduate students	y	y	y	y	y		y	y	y

May be used in graduate student research	y	y	y	y	y		y	y	(see below #4)
May be used in support of government funded research	y	y	y	see below #2	y		y	y	(see below #5)
May be used in support of privately funded research	y	n	y	see below #2	n		y	n	(see below #6)

## Matlab

Tufts network concurrent license is comprised of approximately 25 or so popular Mathworks Toolboxes. Matlab may be installed on Tufts owned machines such as lab computers and faculty hardware. As a network license, the installed machine must be on Tufts' network for authentication. If you or your lab wishes to use this license on local hardware, please contact your local FSP/IT support person. The following Toolboxes are currently part of the license:

Matlab Toolboxes	Concurrent seat count
Matlab(base)	85
Simulink	40
Control	40
Curve Fitting	40
Distributed Computing	12
Distributed Computing Engine	32
Financial	40
Fuzzy Logic	40
Image Processing	40
Compiler	40
Neural Network	40
Optimization	40
Partial Differential Eq.	40
Real-Time Workshop	5
Signal Processing	40
Simulink Control Design	40
Statistics	40
Symbolic Math	5
Identification	40
Virtual Reality	1
Wavelet	40
BioInformatic	5

SimBiology	5
Instrument Control	5
RTW_Embedded_Coder	5
Global Optimization	10

## Mathematica University-Wide Unlimited Site License

Tufts recently (summer 2012) upgraded its license to the Unlimited Program.

There are several benefits of this program. Use of Mathematica on the research cluster will allow for the use of hundreds of cores for tasks requiring more computing power than available on laptops and desktops. An upgrade of the current cluster license to the unlimited license is planned for Fall 2012. Another benefit of this program allows Tufts' participation in the vendor Home Use Program. Tufts faculty, research staff and students may obtain access to a stand-alone copy for personal use. Under this program, this is a transaction between the participant and the vendor. The vendor supplied individual password and media expire in conjunction with the Tufts license each year on March 31st. As part of the license, it is up to the participant to contact Mathematica to receive an updated password. **Note**, this is not automatic. If no action is taken, your license expires. In addition, upgrades are included, but you will need to request those as well via the vendor website. The following license id is needed to register: **L2806-0850**

Faculty, staff and students may register by following the instructions and embedded links in the attached **PDF** document on this page.

Additional instructions can be found at:

<http://support.wolfram.com/sites/MathematicaSiteInstallationGuide.pdf>

<http://support.wolfram.com/sites/MathematicaStudentSiteInstallationGuide.pdf>

License Access summary and benefits

License type	Pros	Cons
cluster	scalable to many cores, remote access, access to more memory	account required, X11 graphics support needed for PC
home use	stand-alone license for PC, Mac, linux,	yearly renewal
lab use	option for labs, one password	possible lab specific issues
network concurrent	desktop or laptop	must be on Tufts network or VPN

Additional questions about other types of access such as lab installs or network concurrent license should be directed via email to [cluster-support@tufts.edu](mailto:cluster-support@tufts.edu).

Tufts University's license agreement with Mathematica restricts use of the Mathematica software to university faculty, staff and students working on institutionally-owned or leased computers. Faculty home use of the software on a faculty member's personally-owned computer is permitted for academic research and instruction under a separate addendum to the university's agreement with Wolfram Research. Student home use of the software on a student's personally-owned computer is permitted for academic research and instruction under a separate addendum to the university's agreement with Wolfram Research.

## Maple Faculty Home use program

Tufts Maple license provides for Tufts' participation in the **Maple Adoption Program**. Full-time faculty may obtain access to a stand-alone copy of Maple for home use. The version the vendor supplies is a stand alone version (with its own license). The vendor supplied individual password and media expire in conjunction with the Tufts license each year in March. Note, the number of faculty that may participate is capped to the size of our concurrent license and is first come first serve.

For additional program details and faculty registration [visit here](#). Tufts Adoption Code needed for registration is: AC5205MEB7D22B

## TecPlot

A floating network license for six seats of TecPlot 360 is available on the cluster and Tufts owned desktops. License server configuration information is mentioned [here](#).

Additional terms and conditions:

Note1: Must be full time student or teaching faculty member. Student researchers (i.e. post graduate research associates) are OK.

Note2: We allow use on University or personally owned machines. Tecplot respects the University's right to allow use only on University owned machines.

Note3: As long as researchers meet criteria above

Note4-6: Can be used in these situations as long as use is for educational and not any commercial purposes.

## Abaqus

Note#1:

Abaqus can only execute on Tufts campuses. Faculty and Students can install/run on campus but not from home. In order to run Abaqus offsite, you could vpn/ssh etc. into the campus network and remotely execute Abaqus that's installed on computer that is located on campus.

Note#2:

Abaqus Research Edition may be used for funded research provided the results of such research are not proprietary.

## Sigmaplot

The single license server that should be used is **licenses01.atech.tufts.edu**

Installation Instructions:

- Download the file to your machine:  
<http://www.sigmaplot.com/products/sigmaplot/produpdates/sigmaplot12.3.zip>  
or find a copy at: /cluster/shared/dmarshal/ISO/
- Unzip the installer file
- Uninstall SigmaPlot 12.0, 12.1 or 12.2 Release Version
- Back up your files in the <user>\SigmaPlot\SPW12 folder if you have made changes to them. The exact profile folder depends on the operating system.
- Delete that <user>\SigmaPlot\SPW12 folder
- Double-click on the EXE file and install the program

For serial number to use for installation contact cluster-support@tufts.edu.

On Windows machines two environment variables are needed:

**LSFORCEHOST license01.atech.tufts.edu**

**LSHOSTS license01.atech.tufts.edu**

## Maple

1. unless on school owned machine in labs

## Stata SE

Note #1: Stata on the cluster only serves licenses on the cluster and not user desktops. The license is node locked to the cluster and is not the same license as Tufts's GradPlan program for desktops.

## Ansys

Tufts University's licenses for Ansys software are Academic Teaching and Research licenses. Ansys imposes the following restrictions on their use:

1. The software may only be used for degree and non/degree-related research, student instruction, student projects and student demonstrations.
2. No analysis work done with the software is permitted to be proprietary.
3. All users of the software must be Tufts University employees, students or contractors who have been authorized by Tufts to use the software.
4. The software may not be used for any competitive analysis or commercial activity.
5. The software may only be used within a 50 mile radius of the Medford Campus. This restriction applies even when the user is accessing the software via a license check-out or via a VPN.

## SAS

Tufts SAS license recently (spring 2012) changed from a fixed license count to an unlimited license. As a result the former charge back model has been replaced with a centrally funded model without charge back for installations on University owned machines. If you are a faculty or staff member interested in SAS please contact your local IT FSP support person for assistance.

The university has a license amendment in place with SAS that permits the installation of SAS software on a student's personal computer. There's some paperwork that each student needs to complete - a one-page agreement that the student signs and that the university keeps on file. Also, the installation needs to be done by a university IT support employee. Since SAS does not support a native Mac version, the use of a Virtual Machine such as either **Parallels** or **VMware Fusion** is needed in order to run SAS for Windows on their Mac. For further information contact TTS **Tufts Online**.

The components of SAS available include SAS Education Analytical **Suite** and SAS Genetics.

**Note:** Currently SAS is installed on the cluster.

## **GAMS**

Occasionally there is interest in **GAMS**, but it is currently not available on the cluster. A few GAMS PC licenses are held by faculty throughout Tufts. If you have GAMS code and need to run it without having a license you should consider the public GAMS **server** service. Alternatively, Matlab's Optimization Toolbox and Mathematica may address your problem setting for mathematical programming problems.