

# *UAB MATLAB campus license: TAH update*

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## UAB IT Research Computing Day

September 15,2011

# Outline

- General features of MATLAB TAH
- UAB TAH
- UAB users of TAH and applications
- Future of UAB TAH

# MATLAB Total Academic Headcount (TAH) License

UAB

Tom McHugh  
Account Manager  
MathWorks, Inc.  
October 27, 2010

## UAB MathWorks License Configurations Before 2011

### RESEARCH

**Individual**

- Stand-alone installation
- Operated by a single named user
- User can have multiple installations
- Perpetual

**Group**

- Multiple individual licenses
- At least 5 MATLAB
- Designated computer only
- Perpetual

**Concurrent**

- Installed on a network
- Anyone with access can use the software (shared products)
- Central administration
- Perpetual

### TEACHING

**Student Version**

- Student owned computers only
- Includes MATLAB®, Simulink®, Symbolic Math, plus 6 popular toolboxes
- Perpetual

**Classroom Version**

- Classroom instruction only
- Group or concurrent
- At least 10 of all products purchased
- Perpetual

# Scenario 1: Campus Option - Base

## MATLAB

- a powerful, high-level language to develop algorithms, collect and analyze data, and visualize information

## Simulink

- a graphical system to model and simulate complex systems, and implement real-time and embedded systems

## Symbolic Math

- applying engineering, scientific, and mathematical principles to help solve technical problems and derive mathematical models

## Scenario 2: Campus Option - standard

- **MATLAB and Simulink**
- **Bioinformatics Toolbox**
- **Control System Toolbox**
- **Curve Fitting Toolbox**
- **Data Acquisition Toolbox**
- **Image Processing Toolbox**
- **Instrument Control Toolbox**
- **Optimization Toolbox**
- **Signal Processing Toolbox**
- **Signal Processing Blockset**
- **Statistics Toolbox**
- **Stateflow**
- **Simscape**
- **SimMechanics**
- **Symbolic Math**

# Scenario 3: Campus Option - recommended

## Standard Configuration

1. **MATLAB**
2. **Simulink**
3. **Control System Toolbox**
4. **Curve Fitting Toolbox**
5. **Data Acquisition Toolbox**
6. **Image Processing Toolbox**
7. **Instrument Control Toolbox**
8. **Optimization Toolbox**
9. **Signal Processing Toolbox**
10. **Signal Processing Blockset**
11. **Statistics Toolbox**
12. **Stateflow**
13. **Simscape**
14. **SimMechanics**
15. **Symbolic Math**
16. **Bioinformatics Toolbox**

## Add-on Tools:

- **Communications Blockset**
- **Communications Toolbox**
- **Database Toolbox**
- **Econometrics Toolbox**
- **Filter Design Toolbox**
- **Financial Derivatives Toolbox**
- **Financial Toolbox**
- **Fixed-Income Toolbox**
- **Fixed-Point Toolbox**
- **Fuzzy Logic Toolbox**
- **Genetic Algorithm and Direct Search Toolbox**
- **Image Acquisition Toolbox**
- **Mapping Toolbox**
- **MATLAB Compiler**
- **MATLAB Report Generator**
- **Model Predictive Control Toolbox**
- **Neural Network Toolbox**
- **Parallel Computing Toolbox**
- **Partial Differential Equation Toolbox**
- **Real-Time Windows Target**
- **Real-Time Workshop**
- **SimBiology®**
- **SimDriveline**
- **SimElectronics**
- **SimEvents**
- **SimHydraulics®**
- **SimPowerSystems**
- **Simulink 3D Animation**
- **Simulink Design Optimization**
- **Simulink® Control Design**
- **Spline Toolbox**
- **System Identification Toolbox**
- **Wavelet Toolbox**
- **Video and Image Processing Blockset**

# UAB TAH Pricing ~ Oct 2010

	Campus	Student	Total
Base Configuration	\$27,062	\$10,820	\$37,882
- Add-on Price	\$1,700/each	\$700/each	\$2,400/each
	Campus	Student	Total
Standard Configuration	\$37,886	\$15,147	\$53,033
- Add-on Price	\$1,100/each	\$500/ each	\$1,600/each
Additional Add-on pricing (standard)			
	Campus	Student	Total
- Add-on 9-33 Products	\$600/each	\$300/each	\$900/each
- Add-on 34 or more	\$300/each	\$200/each	\$500/each

Recommendation: Option 3- Standard Configuration with 34 additional toolboxes

**TAH Campus Option with 34 additional toolboxes: \$48,086**



# UAB History

## Past six years

- 2005                    \$10,708
- 2006                    \$19,902
- 2007                    \$22,675
- 2008                    \$22,120
- 2009                    \$58,965 (\$42,965 w/o MDCS)
- 2010                    \$25,990 as of today

## Number of requests for information / quotes

- 2005                    24
- 2006                    38
- 2007                    49
- 2008                    64
- 2009                    77
- 2010                    66 as of today

# TAH Benefits

## Budget & Cost Control

*TAH license will sharply reduce the cost associated with placing and processing each order. Scenario 3 would cover more than 95% of the tools that are currently licensed.*

## Software Availability

- ❑ Current licensing options provide limited standalone and counted network licenses on campus. New seats must be purchased each time demand exceeds the counted limits

*TAH license provides standalone and network systems for all faculty, staff, researchers and students on campus so everyone can easily access the tools they need, where and when they want them.*

## License Management

- ❑ License options must be managed for distribution and use compliance on campus

*TAH license will have a common set of tools available for all faculty, staff, researchers and students, eliminating the need and the cost to distinguish between and manage classroom versus research use.*

# FAQ's

## **If I've purchased a MATLAB license in the past, do I need to keep paying software maintenance fees on that license?**

- ❑ No. The TAH license is designed to provide you with better access to many if not all of same tools you are using now. You may then elect not to continue the software maintenance program on your existing license when it expires and use the TAH license instead.

## **What happens if I need a tool that's not included in the site license?**

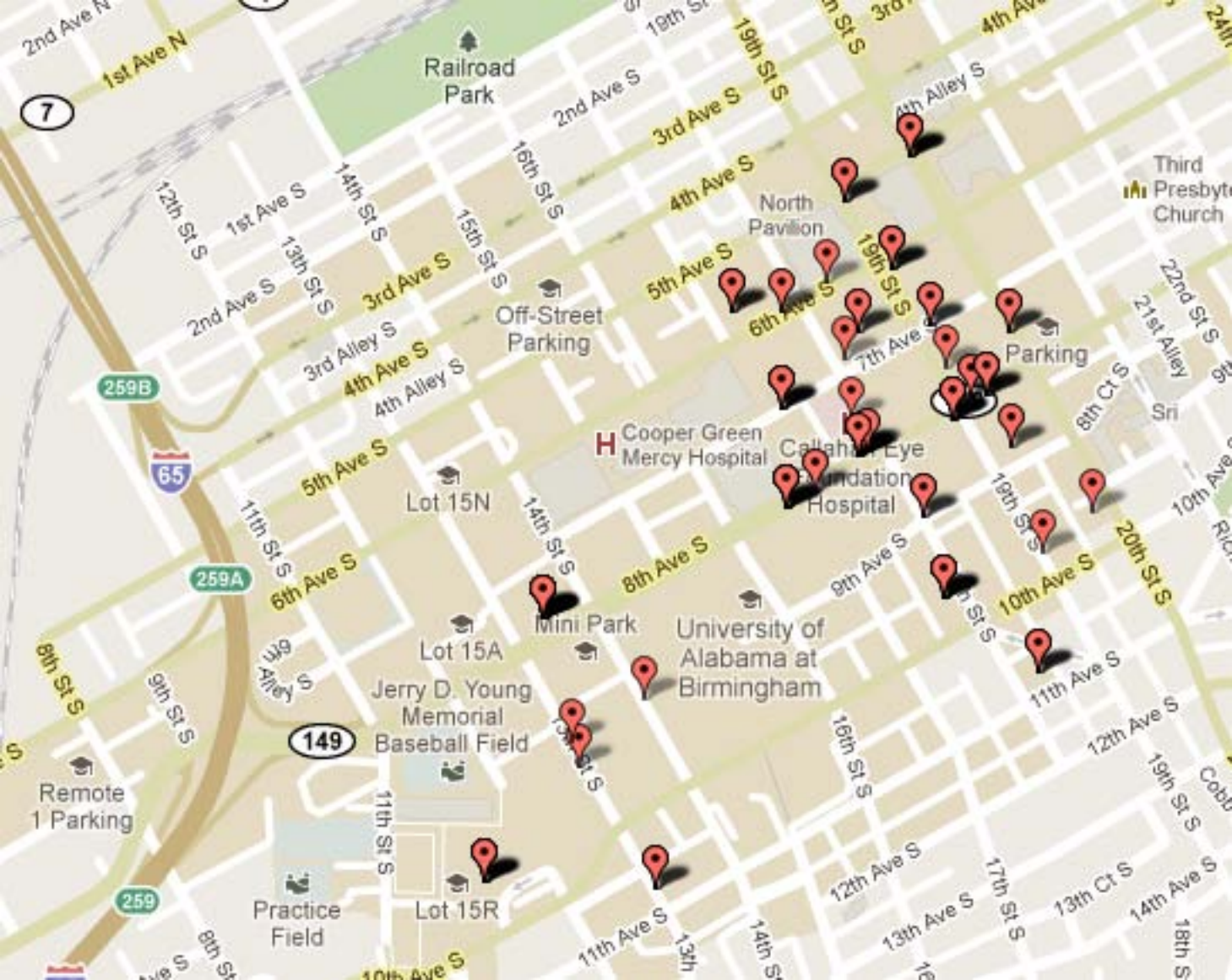
- ❑ Other tools can be purchased directly from The Mathworks for use with the TAH license under our conventional academic pricing model and license use restrictions. This license would then be deemed a Child License.
- ❑ Prerequisite tools that are already on the TAH license, starting with MATLAB and Simulink, are not required to be purchased. Directions for integrating the TAH license with any Child licenses will be provide to the end user.

## **What happens if I have already purchased a tool that's not on the site license, do I need to buy it again?**

- ❑ No. Existing licenses can be maintained and used with the TAH. Licenses for tools not included in the TAH can be maintained according to our conventional academic pricing model and license use restrictions.

# Mathworks MATLAB Site License Agreement

- UAB has acquired on Jan 1, 2011, a university wide site license (#678600) for MATLAB and Simulink software.
- The new Total Academic Headcount (TAH) license will make it easier for everyone in the UAB community to use MATLAB and other Mathworks products.
- The TAH allows both unlimited use of MATLAB in both teaching and research activities, but only full time faculty and staff can install full collection of MATLAB and any of the 48 toolboxes, block-sets, compiler and other software on their computers for UAB work.
- Students can use Mathworks software on UAB computers on campus. UAB will be first university in Alabama to implement a TAH license.



7

259B

65

259A

149

259

Railroad Park

Off-Street Parking

Cooper Green Mercy Hospital

Callahan Eye Foundation Hospital

University of Alabama at Birmingham

Jerry D. Young Memorial Baseball Field

Mini Park

Practice Field

Third Presbyterian Church

North Pavilion

Parking

Lot 15N

Lot 15A

Lot 15R

Remote 1 Parking

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# Installing MATLAB

- For Instructions on installing MATLAB see <http://docs.uabgrid.uab.edu/wiki/MATLAB>
- [Create an account at the Mathworks site](#)
- Request an [activation key](#)
- Associate your Mathworks account with the campus-wide MATLAB TAH
- Download the software from the [mathworks download site](#) and install MATLAB
- Activate the software using the activation scenario that best suits your particular needs

# MATLAB TAH Asset Managers

- [http://docs.uabgrid.uab.edu/wiki/List of UAB TAH Asset Managers](http://docs.uabgrid.uab.edu/wiki/List_of_UAB_TAH_Asset_Managers)
- CAS:
  - Chemistry and CIS: Larry Owen; larryowen@uab.edu
  - Physics: David L. Shealy, Ph.D., dls@uab.edu
  - Psychology: Rishi Deshpande; vonrishi@uab.edu ; Aeron Gault; agault@uab.edu
- School of Engineering: Thomas P Foley, tfoley@uab.edu and Mike Hanby, mhanby@uab.edu
- IT Customer Services: David C. Yother, dyother@uab.edu
- School of Medicine:
  - Department of Neurobiology: Kristina M Visscher, Ph.D., kmv@uab.edu ; Tom Bowman, bowman@uab.edu ,
  - Department of Neurology: He Huang; hehuang@uab.edu , David Clark, dgclark@uab.edu
- School of Optometry, Vision Science: Mark Bolding, mbolding@uab.edu , Alexander A Zotov, azotov@uab.edu
- For users in other areas of UAB, contact your IT support person, Dr. David Shealy (dls@uab.edu) or Mark Bolding, [mbolding@uab.edu](mailto:mbolding@uab.edu)

# Running MATLAB on Cheaha

- **Integration with Desktop MATLAB**
- **Using Batch Submit from the Desktop Instead of *matlabpool* Jobs**
- **Direct Use on the Cluster**



# The Team

*an engaged professional staff collaborate  
to maximize research impact*



**Bob Cloud**  
Executive Director  
Infrastructure Services  
UAB IT



**David Shealy**  
Director Research  
Computing  
Physics / UAB IT



**Puri Bangalore**  
Consultant to  
Research Computing  
CIS / UAB IT



**John-Paul Robinson**  
System Architect  
Research Computing  
UAB IT



**Mike Hanby**  
Information Systems  
Specialist  
Engineering / UAB IT



**Poornima Pochana**  
Programmer/Analyst  
Research Computing  
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**Shantanu Pavgi**  
Programmer/Analyst  
Research Computing  
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**Bill Bradley**  
System Programmer  
Infrastructure Services  
UAB IT