# SC16: 6th Annual Lmod Booth Talk

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# Introduction

- Welcome to the 6th annual TACC Booth Talk
- What is Lmod?
- Why you might to use it
- What is new?

# Lmod's Big Ideas

- A modern replacement for a tried and true concept.
- The guiding principal: "Make life easier w/o getting in the way."

# Why You Might Want To Use Lmod

- Same `module` command as in Tmod
- Active Development; Frequent Releases; Bug fixes.
- Vibrant Community
- It is used from Norway to Isreal to New Zealand from Stanford to MIT to NASA
- Enjoy many capabilities w/o changing a single module file
- Debian and Fedora packages available
- Many more advantages when you're ready
- It is what we use every day!

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# Features

- Reads for TCL and Lua modulefiles
- One name rule.
- Support Software Hierarchy
- Spider Cache: fast `$ module avail`
- Properties (gpu, mic)
- Semantic Versioning: 5.6 is older than 5.10
- family("compiler") family("mpi") support
- Optional Tracking: What modules are used?
- Many other features: ml, collections, hooks, ...

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# History of Support for Module Names

- Originally only *name/version*: gcc/4.8.1
- Lmod 5+ *cat/name/version*: compiler/gcc/4.8.1

# New with Lmod 7: NVV

- Support for *name/v1/v2*: fftw/64/3.3.4
- MODULERC Support:
  - Set Defaults under Site and/or User
  - Hide any installed module
- Major refactoring of Lmod
  - support NVV
  - Code Cleanup
  - Better Spider Cache handling

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# Setting Defaults

- System MODULERC file: /path/to/lmod/etc/rc
- $MODULERC points to a file.
- User ~/.modulerc
- Can set defaults User, System, Files
- Examples: account for web services

# Hiding Modules

- System MODULERC file: /path/to/lmod/etc/rc
- User ~/.modulerc
- hide-version foo/1.2.3
- Hidden from avail, spider and keyword
- Hidden modules can be loaded
- Sites: deprecation, experimental
- show hidden: module --show-hidden avail

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# Conclusions: Lmod 7+

- Latest version: https://github.com:TACC/Lmod.git
- Stable version: http://lmod.sf.net
- Documentation: http://lmod.readthedocs.org

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