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# Technology Support Services

- Bob Davis
- Associate Director User Support Services

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# Technology Support Services

- NUIT Technology Support Services (TSS) helps Northwestern faculty, staff, and students use computing and network resources available on campus and over the Internet.

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# NUIT Support Center

- The NUIT **Support Center** provides technical support for NUIT services to members of the Northwestern University community.
- Located at 1800 Sherman.

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# Support Offered

- NetID activation and password resets
- Assistance in accessing Web-based University resources including CAESAR and Course Management System (Blackboard)
- @u.northwestern.edu account assistance
- Northwestern wireless configuration assistance
- Northwestern network connectivity troubleshooting



# NUIT Service Point

- The NUIT **Service Point** provides a centrally located support site on the Evanston campus for students, faculty, and staff to receive hands-on technical support assistance.
- Located on the ground floor of Norris University Center, across from the University bookstore
- On-campus technical support of laptop computers is provided at the NUIT Service Point through the **Laptop ER** program.



# How To Find Help

- Looking for technical assistance? Choose one of the options below to locate support that best fits your technical need
  - Call NUIT at 847-491-**HELP** (4357)
  - Submit an Online Request
  - Visit the NUIT Service Point
  - Visit the NUIT Support Center in Evanston
  - Use the NetID Support Kiosk in Chicago
  - Chat Online
  - Send an E-mail Message:  
**consultant@northwestern.edu**



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# Get Connected

- NUIT Website: <http://www.it.northwestern.edu/>
- Provides resources for Students, Faculty and Researchers
- Get Connected Handout

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# Academic & Research Technologies

- Brian Nielsen
- Project Manager Faculty Initiatives

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# Support for Teaching & Learning

- Academic & Research Technologies
  - Location: NU Library 2 East
  - Consulting for faculty and grad students on technologies for teaching and learning
  - Part of a larger NUIT organization
  - Support also available in individual schools



# Northwestern's Course Management System (CMS)

- Document distribution
- Students may turn in assignments
- Communication of grades
- Automatic scoring on tests
- Mobile App available soon (IOS, Android)



# Other Technologies and Services

- Clickers
- Students Teaching Students program
- Google Apps – for Docs and Sites
  - Document sharing
  - Forms for data collection
  - Collaborative web sites
- Web and video publishing options



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# Academic & Research Technologies

- Pradeep Sivakuma
- High Performance Computing Specialist

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# Advanced Research Computing

Research Computing provides extended collaborative support and the infrastructure to enable undergraduate, graduate, and faculty researchers to educate, develop computer programs, visualize data, and solve challenging problems in engineering, social sciences, and humanities. Services provided:

- High Performance Computing (HPC) system or Quest
- High end visualization and data analysis
- Research data storage

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# Advanced Research Computing

## *What is Quest?*

Quest is NU's HPC cluster - a compute farm of CPUs in an integrated network fabric with direct attached storage. Features:

- 700+ nodes (computing server running its own OS) and over 7200 cores
- Infiniband interconnect for networking nodes and storage devices
- GPFS file system for managing more than 150 TB of total disk storage

## *Need for speed*

- Quest has the ability to perform roughly 137 trillion calculations per second (TFLOPS)
- Since its inception in 2009, Quest has been utilized for more than 129 million compute hours or the equivalent of 14869 yrs of worktime on a single core computer.
- Currently Quest has 624 users working for 424 active projects from various NU schools including Feinberg School of Medicine, Weinberg College of Arts & Sciences, McCormick School of Engineering, and Kellogg School of Management.



# Research Data Storage

Research computing provides a central platform for storing research data in a secure, reliable manner called Vault. Using Vault, researchers can

- Share data internally and externally in a collaborative environment
- Stage large-scale project data and access them through a fast networked storage
- Manage and regulate data ownership to particular projects

***NOTE: Vault storage cannot be used to store data which are subject to regulatory or compliance requirements***



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# Research Data Storage

*Vault Collaborative* is a web-based tool that allows researchers to upload, store, and share research data through a web link. Eligible researchers get 50 GB for free, and can also purchase 100 GB increments on a cost basis.

*Vault Supplementary* is connected to Quest through a low-bandwidth network and is intended for hosting and storage of large scale analysis data from HPC computations. Eligible researchers will buy have to request and buy storage space on 500 GB increments.

*Quest storage* is for conducting active research on Quest and provides high-speed, high-bandwidth access to the HPC system.

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# Data Visualization

**NUviz:** *A group of industry artists/technicians who focus on solving the complex visualization challenges faced by NU researchers.*

Located in Silverman Hall, former staff of studios including DreamWorks, Sony Imageworks, and Midway Games apply CGI industry techniques to scientific data to help translate numerical data into informative and artful illustrations, animations, and interactive 3D experiences.

NUviz' work has been featured in numerous popular and scientific media including the NY Times, Astronomy Magazine, the Journal of the American Chemical Society, and TEDx.

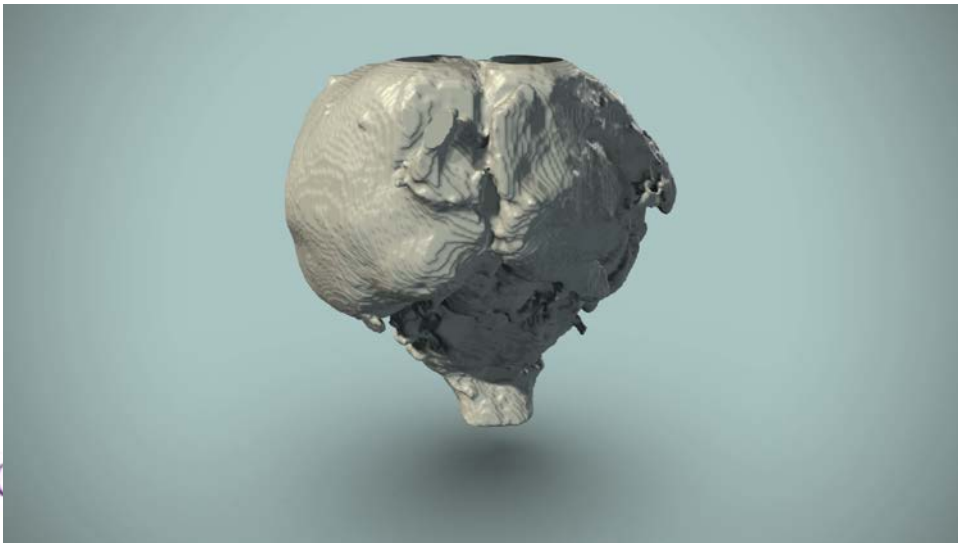
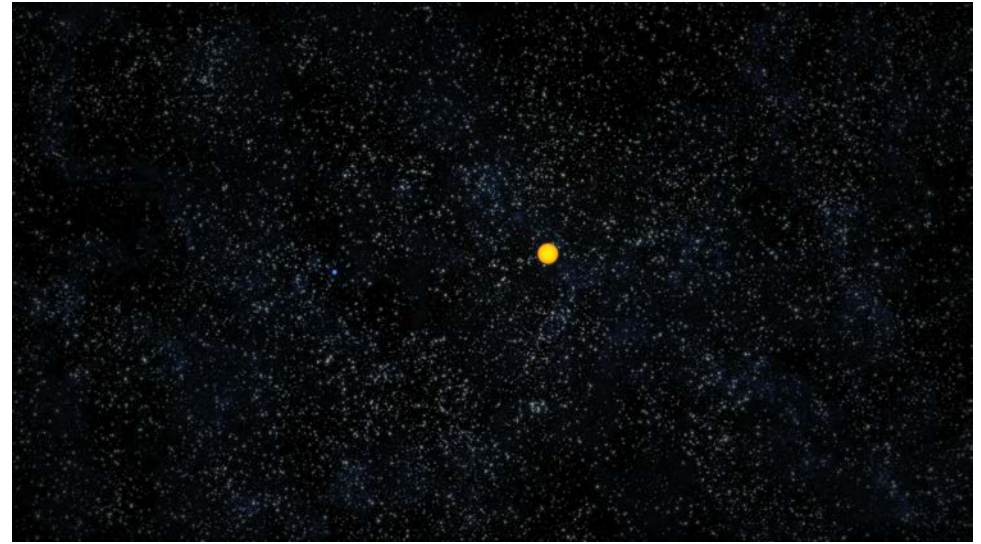
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# Data Visualization





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# Advanced Research Computing

- Software tools to create, process, and visualize data like Matlab, Mathematica, SPSS, SAS, Red Hat Enterprise Linux (OS), Intel Compiler Suite, Fortran, Python, Paraview etc.
- Workshops to train new and existing users of Quest in HPC, parallel programming languages, NSF and NIH data management plans, and applying and accessing other federated compute resources like XSEDE, and GLCPC
- Visualizing data through a high resolution tiled 3D wall display
- Data sharing and storage for managing experimental and simulation data through a secure and reliable storage portal

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# Advanced Research Computing

- If you have any questions, please contact:
- **[quest-help@northwestern.edu](mailto:quest-help@northwestern.edu)**

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# Academic & Research Technologies

- Don Kenyon
- Manager Classroom Support Group

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# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- Support starts with people

Classroom  
Assistance

1-847-467-  
**ROOM**  
(7666)

[smartcls@northwestern.edu](mailto:smartcls@northwestern.edu)



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# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- Every room has a phone
- Every call is answered directly

Classroom  
Assistance

1-847-467-  
**ROOM**  
(7666)

[smartcls@northwestern.edu](mailto:smartcls@northwestern.edu)



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# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- Remote system monitoring

Classroom  
Assistance

1-847-467-  
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(7666)

[smartcls@northwestern.edu](mailto:smartcls@northwestern.edu)



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# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- Positive system control from help desk

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Assistance

1-847-467-  
**ROOM**  
(7666)

[smartcls@northwestern.edu](mailto:smartcls@northwestern.edu)



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# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- A typical touch panel in a laptop based room

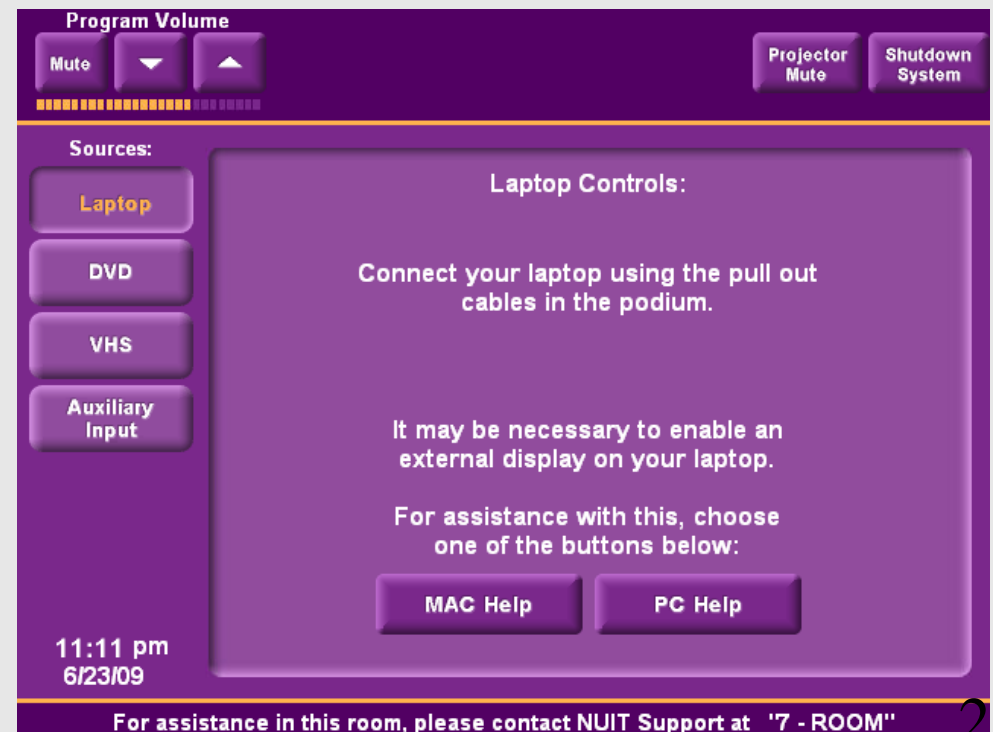
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(7666)

[smartcls@northwestern.edu](mailto:smartcls@northwestern.edu)

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# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- A typical touch panel in a resident computer based room

Classroom  
Assistance

1-847-467-  
**ROOM**  
(7666)

[smartcls@northwestern.edu](mailto:smartcls@northwestern.edu)

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Program Volume  
Mute [Volume Up] [Volume Down]  
Projector Mute  
Shutdown System

Sources:  
Resident Computer  
Laptop Computer  
DVD  
VHS  
Auxiliary Input

Resident Computer:  
• Computer image is displayed on LCD monitor  
• Use keyboard and mouse in podium to control Resident Computer.

Tech M177  
11:31  
6/23/09

For assistance please call NUIT support at 7-ROOM (7-7666)



# Smart Classrooms Smart Support

## Smart Classrooms 7-ROOM Support

- To schedule an orientation or for help with any supported room call or go online:  
<http://www.it.northwestern.edu/education/classrooms/evanston/index.html>

### Evanston Classroom Locations

Below is a list of NUIT supported classrooms on the Evanston Campus. Click on one of the links below to get detailed information about the presentation technology that is available in a particular classroom and User Documentation.

Instructors who have not used a Smart Classroom are encouraged to [schedule a training session](#).

Standard Smart Classroom		Laptop-based Smart Classroom	
<a href="#">Annenberg G01 (SESP)</a>		<a href="#">Annenberg 101</a>	
<a href="#">Annenberg G02 (SESP)</a>		<a href="#">Annenberg G28</a>	
<a href="#">Annenberg G08 (SESP)</a>		<a href="#">Annenberg G29</a>	
<a href="#">Annenberg G14 (SESP)</a>		<a href="#">Annenberg G30</a>	
<a href="#">Annenberg G15</a>		<a href="#">Annenberg G31</a>	
<a href="#">Annenberg G21</a>		<a href="#">Annenberg G32</a>	
<a href="#">Annenberg G27 (SESP)</a>		<a href="#">Clark B01</a>	
<a href="#">Fisk 217</a>		<a href="#">Clark B03</a>	
<a href="#">Frances Searle 2-107</a>		<a href="#">Fisk 114</a>	
<a href="#">Harris 107</a>		<a href="#">Frances Searle 1-441</a>	
<a href="#">Kresge 2-410</a>		<a href="#">Frances Searle 2-378</a>	
<a href="#">Kresge 2-415</a>		<a href="#">Frances Searle 2-407</a>	
<a href="#">Kresge 2-435</a>		<a href="#">Frances Searle 3-220</a>	



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# Thank You!

## Questions?

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