Please use this form to request technology fee expenditures for equipment in classrooms, computer laboratories, or other instructional or research laboratories, in keeping with the State Board of Agriculture Charges for Technology Manual guidelines found at http://www.colostate.edu/services/acns/itec/fee.html. Technology committee members are available for assistance, the names of whom appear in Section IV. Also see Section IV for submission information.

Section I. Overview

1. Project Type
   - departmental project (requested against departmental fund allocation)
   - other project (may be for a single department or college-wide, but request is against central funds)

   ($83,000 is available for other projects; see department heads for department allocation amounts.)

2. Title of proposal

   Sun Ray facility

3. Submitted by (Name & contact information of primary submitter(s) – up to three)

   Mark Ritschard, Director, Engineering Network Services (ENS)
   Mike Young, ENS student lab manager
   David Bolinder, ENS student lab coordinator

4. Proposal supported by*

   CJ Keist, UNIX and network administrator, ENS
   Craig Mapel, network administrator, ENS

* Proposals with wide-spread support from a cross-section of the college will be given preference. Although this form may be submitted electronically with a list of supporters, actual signatures are required for all supporters beyond the original submitter(s).

5. This project request
   - does not pertain to facilities or equipment
   - is to maintain and/or upgrade existing facilities (replacement equipment only requested)
   - is to augment and maintain existing facilities (some new equipment requested)
   - is to provide a new facility (all new equipment requested)

6. Brief summary of proposal (Please limit answer to no more than three paragraphs)

   The present state of the college computing instructional facility (AB Infill lab) is not conducive to the breadth and depth of instructional needs by the faculty. In particular, there are no college-wide UNIX computing labs specifically for instruction. Furthermore, with the exception of the most expensive up-to-date Windows computers, no computer within the ENS budget is capable of running ALL of the desired programs in the instructional lab. The goal of this proposal is to provide access to both UNIX instructional software and Windows instructional software from a single platform, the Sun Ray terminal.

   An added benefit will be increased functionality of the lab and a resulting increase in use of the lab for courses. The terminal model will provide increased reliability as it reduces the amount of hardware and software maintenance in the lab.

7. Location for proposed equipment:

   AB “Infill” lab
8. **Equipment requested** (complete only if proposal is for equipment and/or software):

<table>
<thead>
<tr>
<th>Specific equipment needed</th>
<th>number</th>
<th>unit</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Enterprise Server 6500</td>
<td>1</td>
<td>$230,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>Sun Ray terminals</td>
<td>26</td>
<td>$400</td>
<td>$10,400</td>
</tr>
<tr>
<td>19” Monitors for Sun Rays</td>
<td>26</td>
<td>$600</td>
<td>$15,600</td>
</tr>
<tr>
<td>NT server upgrades</td>
<td></td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific software needed</th>
<th>number</th>
<th>unit</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITRIX server software</td>
<td>1</td>
<td>$2,500</td>
<td>$2,500</td>
</tr>
</tbody>
</table>

**Total cost:** $538,500

**Amount from other sources** $525,500

**Amount requested from Technology Fund (terminals & monitors)** $13,000
Section II. Pedagogical considerations

1. What are the pedagogical goals of this proposal? (Please limit answer to no more than three paragraphs)

   To provide a robust environment in which software for both UNIX and Windows NT may be used for instructional purposes in the same facility.

2. Why is the equipment requested appropriate for the goals stated in #1, above?
   (complete only if proposal is for equipment and/or software):

   The Sun Ray system will provide simultaneous access (from a single terminal) to both UNIX and Windows NT.

3. How will the attainment of the goals in #1, above, be measured and who will do the measuring?

   By measuring the increase in the usage of the lab – measured by ENS.

4. Planned course/research benefit:

<table>
<thead>
<tr>
<th>Course No/Research projects</th>
<th>Number of students affected/semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>any courses offered in the college</td>
<td>potentially all students in the college</td>
</tr>
</tbody>
</table>

5. What other courses/departments in the college will be able to use this facility for instructional use?
   (complete only if proposal is for equipment and/or software)

   ALL

6. What functionality will this equipment provide that is not already available elsewhere in the college?

   Simultaneous access to both Windows NT and UNIX instructional software as well as access to ALL college software from a single station.

7. How many hours per week (M-F, between 7am and midnight) will this equipment be accessible for general student use? (complete only if proposal is for equipment and/or software)

   As long as the building is open.

8. How will students be made aware of this project? (complete only if proposal is for equipment and/or software)

   Through classes in the labs, posted notes, and word-of-mouth.
Section III. Operation, Maintenance, and Funding

1. Complete either A or B:
   B. If this request is not for student employee wages, who will be responsible for oversight and any installation, ongoing maintenance, or repair for this project?
      (the responsible party must sign here if name does not appear in Section I, #2 or #3)

      Engineering Network Services

2. What operation & maintenance services would be needed from ENS staff? from department staff?

   All operation and maintenance will be provided by ENS staff.

3. What modifications of current space will be necessary to install the new equipment? (remodeling, wiring, security, furniture, etc.)

   None

4. Source of funding for the modifications in #3, above:

   N/A

5. Estimated cost of operational expenses (supplies, maintenance, supervision, student assistance, etc.):

   Annual expenses will be equal to or less than the current lab configuration, not exceeding $20,000 annually.

6. Source of funding for the expenses in #5, above:

   ENS budget

7. What other sources of funding (and how much) exist for this project (outside grants, equipment donations, reallocation of existing equipment, etc.)?

   $525,000 of this budget will be provide jointly by the Dean of Engineering, Engineering Network Services, and a grant from Sun Microsystems.

8. What attempts have been made to obtain the funds in #7, above?

   Funds have been committed both by the Dean and ENS and a proposal has been submitted to Sun.