Student Technology
Fiscal Year 2006-07
Grant Proposals

Delivered to IS: 11/1/06
Signature: Jennifer Long Martin

Dr. Jim McCrory:
Comment: Approved

Signature:  

Tim Chadbourne:
Comment: Approved

Signature:  
Date: 11/2/06

Gary Gatch:
Comment: Approved

Signature:  
Date: 11/7/06

Dale Martin:
Comment: Approved

Signature:  

Tyron/Diana:
Comment: Approved

Signature:  
Date: 11-6-06
Student Technology Fee
Grant Proposal Request Form
Fiscal Year 2006-07
Northwestern State University of Louisiana

Prepared by: Dr. ElizaBeth Guin & Stacy Fontenot  For: School of Social Sciences
School of Social
Department/Unit: Sciences  College: Liberal Arts  Campus: Natchitoches

Which NSTEP Goals/Objectives does this project meet? Goals #5 & #7; Objectives #1, #2, #7, & #8

Requested equipment will be located/installed/housed? Building Kyser Hall  Room 206

Are department property policies and procedures in place for requested equipment? Yes

Which individual will be responsible for property control of the requested equipment?

Signature: Janet Broadway  Date: October 31, 2006

Grant Proposal Requested Amount: $7158  Budget Attached (circle one): YES

Grant delivered to Student Technology located in Watson Library, Room 113. Date 10 31 06 3:11pm

This grant proposal must include all specifications, description, model number, quotation, cost, state contract number, and vendor for each item. Proposal will be returned if information is not included in full.

1. Describe target audience.
   - The lab classroom will be used by students in the School of Social Sciences, most specifically by students in the Master of Arts in Heritage Resources; Bachelor of Arts in Heritage Resources; minoring in Geography, Historic Preservation, and Anthropology; and students enrolled in the Environment class (ENVR 2030/2031). The GIS courses will also serve students in the College Science & Technology, College of Education, and the College of Business.

2. Describe project/initiative for which you are requesting funds.
   - This project will provide lecture support to Kyser Hall Room 206. This classroom lab is for Social Sciences students, specifically courses taught in Geographic Information Systems, oral history, and Heritage Resources methods. It currently has 15 student computers and an instructor computer; a map plotter; and a map scanner provided through a Board of Regents grant. It will also house a resource database provided by the National Park Service that will serve as the basis for class lectures, assignments, as well as student and faculty research projects.

3. State measurable objectives that will be used to determine the impact/effectiveness of the project.
   - Please see following page
3. The most important objective for this lab classroom is the opportunities for students to participate in real world projects with cutting-edge technologies to accomplish social sciences research. A real opportunity exists for student work to be incorporated into NPS GIS database. This equipment will support emerging technologies by providing computer equipment to enhance lecture presentation and will increase interest with hands-on technologically-innovative social sciences research.

4. Indicate how each project objective will be evaluated.
   - Evaluation: increased enrollment figures for classes, continuous increase in the use of the equipment, NPS using GIS layers in their main database, student & faculty surveys of the lab and equipment, grades associated with assignments

5. If funded, which NSTEP http://www.nsula.edu/nstep/NSTEP.pdf objective(s) will this funding of this project advance. How will funding of the project advance the University and College/unit technology plan?
   - This funding will advance the goals #5 and #7 and objectives #1, #2, #7, and #8. This classroom will serve students with emerging technologies that is proving effective in a variety of disciplines (see #1). This cutting-edge technology-based laboratory was established with funds/resources from the Board of Regents Enhancement grant program and the National Park Service (NPS) and it is the sole location for this type of equipment on campus. It demonstrates a commitment to educating and training students to meet current professional technological needs.

6. Provide a justification for funding of this project. Estimate the number of student that will be served per academic year and in what ways. Please indicate also any unique needs of the target group.
   - Initially, approximately 115 students per semester will use the lab classroom; it is expected that this number will grow as students become aware of the courses. Additional students will have access for their specific research through special projects classes or thesis research projects.

7. List those individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project.
   - Stacy Fontenot, technical assistance and database administration
   - Dr. Bill Maner, Assistant Professor of Geography will teach the GIS courses
   - Dr. Elizabeth Guin, Heritage Resources Coordinator will advise students and liaison with NPS
   - Dr. Susan Dollar, Assistant Professor of History and resident Oral Historian

8. Describe any personnel (technical or otherwise) required to support the project/initiative.
   - Stacy Fontenot will provide technical assistance in the lab and administer the GIS database provided by the National Park Service.
   - Help Desk for technical support and initial setup to the instructor computer.
   - Social Sciences faculty to teach classes.
   - Physical Plant for electrical power for the ceiling projector.

9. Provide a schedule for implementation and evaluation.
   - Spring 2007 has GIS lecture and lab, oral history, and heritage resource methods class offerings. The lab is outfitted for the classes, but this grant would provide lecture support. A mobile unit for the projector is anticipated being used meanwhile.

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years.
    - Please see following page
10. Information provided by Intermedia Technologies estimates the life of the equipment between 3 and 5 years. Additional bulbs not included with this grant will be provided by the School of Social Sciences. Our experience with our current ceiling mounted projectors demonstrates a longer life than 5 years. The 2000 lumens projector is appropriate for the size of the lab classroom.

11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received through a Student Technology Fee.
If you are requesting equipment that will be either/or checkout to students or moved within the department, you must provide a checkout/loan policy.
- A button security lock is currently being quoted for the door. Metal grates were installed by the Physical Plant on all the windows and the door. A specified time is anticipated for “open lab” times for students to complete assignments. A graduate student will be working the lab to ensure it is used for class-related assignments. All students that use the lab will fill out the School of Social Sciences computer use policy (see attached).

Attach two (2) letters of support for the project from the following individuals: the requesting department’s Dean, the appropriate Vice President (for non-academic units), or the SGA President from the requesting campus (for student requests).

Student Technology Fee Grant Proposal Checklist:

- ✔ Is all information requested provided (items 1 – 11)?
- ✔ Is a detailed budget attached?
- ✔ Is all specifications, description, model number, quotation, cost, state contract number, and vendor provided for each item?
- ✔ Are your two (2) letters of support attached?
- N/A If equipment is to be checked-out/loaned, is your policy attached?
School of Social Sciences Internal Computer Policy for Student Workers and Graduate Assistants

In order for student workers or graduate assistants to use university computers, these policies must be acknowledged and followed. These policies are in addition to the Northwestern State University of Louisiana Electronic Data Systems Policies & Standards as published on March 9, 2006, Appendices D & E-Parts 2, and must be followed. Your assistantship or employment can be terminated for failure to follow University Policies.

- University computers, data, and shared drive space are to be used only for University business.
- You must log out when finished working on the computer.
- You cannot download or install any software. If you need software in order to complete a task, please inform Dr. Granger, Dr. Guin, or your immediate supervisor. Contact with Information Systems will be by University personnel.
- You must agree to abide by all Information Systems Rules in order to have computer access. Those policies are in the “Electronic Data Systems Policies and Standards” found on the Information Systems website at http://www.nsula.edu/informationsystems/
- If there is a problem with the computer which you use, notify Dr. Granger, Dr. Guin, or your immediate supervisor immediately.
- You may not log on and allow another person to work under your log in name. Nor can you work under someone else’s log in.
- Submit completed paperwork to Stacy Fontenot. She will obtain Dr. Granger’s signature (he is the “department head”)
- Supervisors must initial and date next to the page numbers at the bottom of each sheet.

I, the undersigned, hereby agree to abide by the following rules in regard to being granted access to faculty and staff PCs:

Name: ________________________________

Date: ________________________________

Signature: ________________________________
Dear Student Technology Fee Coordinator and Committee:

Please accept this letter in support of the Student Technology Fee Grant proposal to provide lecture support technology for the Social Sciences lab classroom in Kyser 206. This classroom will serve students with emerging technologies that is proving effective in a variety of disciplines. For example, the lab is to be equipped as a fully operational GIS/computer facility as well as an ethnographic and oral history project laboratory.

Geographic Information System (GIS) is a computer system designed for storing, manipulating, analyzing, and displaying data in a geographic context. It is a powerful tool for planning, resource management and education. Geographers, anthropologists, archaeologists, heritage resources managers, and criminal justice professionals are increasingly turning to GIS to manage infrastructures of cities, towns, historic sites and heritage areas. Agencies, such as the National Park Service, U.S. Forest Service, the Geodetic Survey and numerous law enforcement agencies are relying more and more on GIS and a career in social sciences requires familiarity with this tool. Ethnography, which is the process of documenting specific societies, and oral histories play important roles in the development and interpretation of heritage resources. Hands-on experience in recordation and transcription, coupled with traditional courses in theory and methodological practice, are essential for student education and professional development.

The School of Social Sciences received a Board of Regents Enhancement grant during spring 2006 to equip this laboratory. The grant proposal was ranked number one in the state and the award totaled $89,000. Implementation of the laboratory is currently underway.

In addition, the laboratory will be equipped with a state of the art GIS database courtesy of the National Park Service and the Cane River National Heritage Area Commission. This database provides a huge amount of data related to this region and provides endless, real-world data for class exercises, assignments and larger student and faculty research projects. These agencies are also funding GIS training for faculty and staff associated with this laboratory, estimated at $20,000, as professional courtesy and as a demonstration of support for this facility.

The funds requested through the Student Technology Fee Grant will provide lecture support technology for this laboratory and demonstrate university financial support for this cutting-edge technology-based laboratory.

Sincerely,

Thomas Hanson
Provost & Vice President
Academic Affairs
Student Technology
Room 113-Watson Library
Northwestern State University
Natchitoches, Louisiana 71497

Dear Student Technology Fee Coordinator and Committee:

Please accept this letter in support of the Student Technology Fee Grant proposal to provide lecture support technology for the lab classroom in Kyser 206. This classroom will serve students with an emerging technology that is proving effective in a variety of disciplines. The Board of Regents spurred this project along with initial funding for the computers, a plotter/scanner, and other cartography and Geographic Information System support technologies.

We expect our students to be computer literate and this lab is dedicated to their expectation.

Sincerely,

[Signature]
Dr. Donald Hatley
Dean, College of Liberal Arts
**Student Technology Fee**

**Grant Proposal Budget**

**School of Social Sciences**

**Kyser 206 lab classroom**

Purchase line item 01041 from State Contract #405150 from Intermedia Technologies
Includes: PT LB50SU Projector SVGA 2000 lumens, 77” Interactive White Board
This package includes installation

<table>
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<tr>
<th>Item Description</th>
<th>Cost</th>
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<tr>
<td>Additional Bulb</td>
<td>$6158</td>
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<tr>
<td>NSU Physical Plant run of electricity in the ceiling to power the projector</td>
<td>$1000</td>
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<tr>
<td>Total cost</td>
<td>$7158</td>
</tr>
</tbody>
</table>

A cost breakdown over 5 years for the equipment (without electrical run) is $1231.60 per year. The anticipated enrollment in all classes to use the lab classroom during the 2007-2008 academic year is 230 (115 per semester as stated in #6 of the grant proposal request form). This equates to $5.35 per student per year over the five year term as stated in the life expectancy estimates.

The following pages provide supporting information for the budget along with state contract information for Intermedia Technologies:

- Chris Sampite email from NSU Physical Plant
- Intermedia Technologies Scope of Work (2 pages)
- Intermedia Technologies Multimedia Catalog front page
- Intermedia Technologies Multimedia catalog, page 6 with line item 01041
- Email from Gerald Broussard with additional information
- Panasonic PT-LB50SU projector specification sheets (2 pages)
- SMARTboard Model 680 specification sheets (3 pages)
I would use a budget of $1,000.00 to complete the wiring and install.

Christopher M. Sampite
Director of Physical Plant
Northwestern State University
(318) 357-5581
Scope of Work: LCD Projector and Smart Board Installation. Note: Electrical, network and computers are not included.
State Contract 405150 Line Items 01022 and 01041

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<th>Part Number</th>
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<th>Description</th>
<th>Price Each</th>
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<td>Spare Lamp for PTLB50SU</td>
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Project Total $ 6,158.00
Assumptions:
Unfettered access to all work areas during established working hours (8:30a-5:00p). Weekend and holiday hours are available at additional cost. All electrical supplied by other. Intermedia Technologies, Inc. PROVIDES NO ELECTRICAL SERVICES OF ANY KIND. All existing or provided equipment or systems that will be integrated into this system must be functioning within normal manufacturer's operating parameters. Customer will provide a safe and secure environment for integration services to be performed. All permits and fees provided by others. All training and system demonstration provided by Intermedia Technologies

Conditions:
All work will be done between 8:30 AM through 5:00 PM. Deviation from scope of work or additional work not specified will constitute a change order and additional cost to client. Project delays, including unscheduled meetings, outside of Contractor's control, including but not limited to delay by other trades or customer, could result in additional cost to customer. All after hour work and weekend work shall be invoiced at 1.5 normal rates.

Payment Terms:
Net 30 or major credit card

Customer Acceptance Agreement Statement
Your signature on this document constitutes a contractual agreement between Intermedia Technologies, Inc. and your organization for the services and products listed above. Please review the document before signing.

Customer Signature authorized agent of NSU ____________________________ Title ________ Date __________

Printed Name ____________________________
Intermedia Technologies, Inc. Acceptance

Authorized Intermedia Technologies, Inc. Signature ____________________________ Title ________ Date __________

Printed Name ____________________________

Proposal Submitted by: Gerald Broussard
Intermedia Technologies, Inc
850 Kaliste Saloom Rd Suite 123
Lafayette, LA 70508
Phone: (337) 268-9510
Fax: (337) 289-9544
gerald@intermedia-technologies.com

Page 2 of 2
INTERMEDIA TECHNOLOGIES
Presenting Excellence

2006-2007
Multimedia Catalog
Products and Services

Louisiana State Contract #
405150

(877)-268-9574

Local Service, Professional Installation
Free Design, On site Walk Through
Licensed and Insured, 100s of A/V Installs
State Wide Service

www.intermedia-technologies.com
Packages under $10,000.00

Install it Yourself Packages

Line Item 01038—PT LB50SU Projector SVGA 2000 Lumens Package, Matte White Screen
$2,300.00

Line Item 01006—PT LB50U Projector SVGA 2000 Lumens, carrying case, remote, 77" Interactive White Board
$3,494.00

Line Item 01042—PT LB60U Projector XGA 3200 Lumens, Matte White Manuel Screen
$3,718.00

Line Item 02027 K-12 Cart Package PT LB50SU Projector SVGA 2000 Lumens, Multimedia Cart, document camera, mobile screen
$5,999.00

Line Item 01040—PT LB50SU Projector SVGA 2000 Lumens, 77" Interactive White Board
$4,210.00

Line Item 01044—PTD3500 Projector XGA 3500 Lumens, Matte White Manuel Screen
$5,092.00

Packages with Installation Included

Line Item 01039—PT LB50SU Projector SVGA 2000 Lumens, Matte White Manuel Screen Installed
$4,139.00

Line Item 01043—PT LB60U Projector XGA 3200 Lumens, Matte White Manuel Screen Installed
$5,537.00

Line Item 01041—PT LB50SU Projector SVGA 2000 Lumens, 77" Interactive White Board Installed
$5,802.00

Line Item 01045—PTD3500 Projector XGA 3500 Lumens with Matte White Manual Screen Installed
$6,827.00

Line Item 01091—PDS 42" Public Display Plasma System, with speakers and cart
$8,197.11

Note: Computers, electrical connections and network connections are not included with custom packages.
Stacy,

Attached is the materials list to install this system. Here are a few Highlights:

2000 Lumen Projector
Extra Lamp
77" Smart Board
Mounts
Cabling
Distribution Amp
Wall Plate
Installation

Job Notes:
Audio will come from projector speakers. Better speaker systems area available
Turn on projector with IR remote. Hard wired systems are available as a replacement.

Expected Life Time: 3 to 5 years

Here are a few other things you will need:

Electrical power for the ceiling projector
Network connection (If Desired)
Computer Station (If Desired)

Hope this helps and please call if you have nay questions.

Gerald Broussard
Intermedia Technologies
(337) 268-9510
Panasonic ideas for life

The World's Fastest Wireless Transmission Projectors

Easy wireless projection (PT-LB50NTU)
- World's fastest data transfer**
- Wireless PC motion/sound streaming***
- Abundant wireless functions, including secondary display transmission and 16-window index style
- Simple, user-friendly settings

Daylight View 2 technology
- Looks max. 50% brighter**
- Vivid colors in a bright room
- Auto operation with ambient light sensor (ALS)

High power and portability
- Bright 2,000 lumens
- Ultra-lightweight: 4.0 lbs/4.2 lbs (1.8 kg/1.9 kg)**
- Slim and compact design: 2-1/4" (57-mm) thickness**

Quick operation
- 2-second speed start
- Auto search
- Real-time keystone correction
- Operation assistance
- Direct power off

There are no cables to connect, so projector setup is quick and easy, and you have full layout flexibility. Wireless Manager ME 3.0 software (provided) increases transmission speed by five times compared to our previous model**. You get fast, smooth, stress-free transmission even with large video files***. You can copy Wireless Manager to a memory card and take it with you on a trip. This lets you enjoy wireless transmission even at presentation sites where the computer doesn’t have the software**.

Wireless Prompter (Secondary Display) Function
This allows transmission of content other than what’s displayed on your PC. For example, you can display text documents on your PC screen while projecting slide from your Microsoft® PowerPoint® presentation***. You get a host of other convenient wireless transmission functions too, such as area-specified transmission and a multi-live mode for simultaneous display of up to 16 PCs.

Wireless transmission
- Transmission will be slower than transmission with a computer that has the software installed. Also, certain functions may not be available.
- With Wireless Manager ME 3.0, you can use the projector screen as a secondary monitor for the PC. In this setup, Microsoft® PowerPoint® must be set to “Show Presenter View.”

Daylight View 2
A built-in sensor measures the ambient light, and the halftone colors and brightness level are adjusted accordingly in real time. Viewing brightness is increased up to 150%**.

---

** As of February 7, 2006, according to our own evaluation of wireless transmission from PC to projector. Wireless projection function is featured on the PT-LB50NTU only.
*** Content and DVDs set with DRM (Digital Rights Management) cannot be transmitted.
**** Comparison with Daylight View 2 turned On and Off, using an 80-inch screen and ordinary meeting room lighting at 400 lux. (Projector: PT-LB50NTU, screen: 2.3x2.3)
***** 4.0 lbs/4.2 lbs for the PT-LB50U and PT-LB50SU, 4.2 lbs/4.2 lbs for the PT-LB50NTU.
****** Logs and projections not included.
******* PT-LB50NTU
******** Transmission will be slower than transmission with a computer that has the software installed. Also, certain functions may not be available.
********* With Wireless Manager ME 3.0, you can use the projector screen as a secondary monitor for the PC. In this setup, Microsoft® PowerPoint® must be set to “Show Presenter View.”

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Ambient Light Sensor
Daylight View Circuit
LCD Panel
Projector

The Daylight View Process
Specifications

Power supply: 100–240 V AC, 50/60 Hz
Power consumption: 240 W (Approx. 2 W in standby mode with fan stopped)

Power consumption: 43.2 A (15.2 mm) diagonal
Panel size: 0.6 (15.2 mm) diagonal
Display method: Transparent LCD panel (x 3, R/G/B)
Drive method: Active matrix
Pixels: 780,063 (1,024 x 768) x 3, total: 2,368,086 pixels

PT-LBS07U/LBS05U
480,000 (800 x 600) x 3, total: 1,440,000 pixels

Pixel configuration: Stacked

Lens: Manual zoom (1:1-1.2), manual focus, F 1.6-1.9, 18.6-22.6 mm
Lamp: 155 W UHM (x)

Colors: Full color (16,777,216 colors)
Brightness: 2,000 lumens
Uniformity: 85%
Contrast: 400:1 (full on/full off)

S-Video/Video: NTSC, SECAM-L, PAL-M, PAL-60:

Projection size: 320–2,160 inches (837–2,620 mm) diagonally

Throw distance PT-LBS07U/LBS05U: 3.7–3.8” (1.1–1.1 m)
PT-LBS06U: 3.7–3.9” (1.1–1.0 m)

Optical axis shift: 6.1 (fixed)

Keystone correction range: Vertical: ±30°

On-screen menu: 17 languages: English, French, German, Spanish, Italian, Korean, Russian, Chinese, Japanese, Swedish, Norwegian, Danish, Portuguese, Polish, Hungarian, Czech, and Thai

Installation: Front/rear ceiling/desk (menu selection)

Built-in speakers: 1-1/16” x 25/32” (4 x 2 cm) x 1 (total), 1.9 W (monaural) output power

Terminals: PC 1 IN

RGB signal: D-sub HD 15-pin in x 1
R, G, B: 0.7 Vp-p, 75 ohms, Sync on green: 1.0 Vp-p, 75 ohms
HD/SYNC, VD: TTL (positive/negative polarity compatible)

YPbPr signal: Y: 1.0 Vp-p (including sync signal), 75 ohms; Pb, Pr: 0.7 Vp-p, 75 ohms

PC 2 IN/PC 1 OUT

RGB signal: D-sub HD 15-pin in x 1 (input/output selectable using on-screen menu)
R, G, B: 0.7 Vp-p, 75 ohms, Sync on green: 1.0 Vp-p, 75 ohms
HD/SYNC, VD: TTL (positive/negative polarity compatible)

VIDEOMUX

RCAPin: 1, 1.0 Vp-p, 75 ohms

S-VIDEO IN

PC AUDIOMIX

MIX (L, R) x 1, 0.5 Vrms

PC AUDIOMIX

MIX (L, R) x 1, 0–2.0 Vrms

Serial: Mini DIN 6-pin x 1 (5B-232C)

Power cord length: 5 m (20 ft)

Cabinet material: Wooden material (ABS/PC)

Dimensions (W x H x D): 11-11/16” x 2-1/4” x 8-5/8” (299 x 57 x 210 mm)

Weight: 4.2 lbs (1.9 kg)

Operating environment: Temperature: 32°–104°F (0°–40°C)
Humidity: 20%–80% (no condensation)

Remote Control Unit

Power supply: 3 V DC (button battery x 1)
Operation range*: Approx. 23 feet (7 m) when operated from directly in front of the signal detector

Dimensions (W x H x D): 2-1/16” x 4-1/4” x 2-1/16” (52 x 123 x 21 mm)
Weight: 2.6 ozs. (74 g) (including batteries)

Wireless LAN (PT-LBS07U)/Standard: IEEE802.11b/g

Modulation: IEEE802.11b Direct sequence spread spectrum (DSSS) system
IEEE802.11g Orthogonal frequency division multiplex (OFDM) system

Transmission system: IEEE802.11b 2.4/5.5 MHz, DQPSK (2 Mbps), DBPSK (1 Mbps)
IEEE802.11g 2.4/5.5 MHz, DQPSK (2 Mbps), OFDM (11/15 Mbps), BPSK (6 Mbps)

Transmission speed: IEEE802.11b 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps
IEEE802.11g 54 Mbps, 48 Mbps, 30 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps

Operation range*: Approx. 98” (30 m)
Frequency range: 2.412 MHz–2.462 MHz
Channels: 1–11 ch

Supplied Accessories:

Power cord
Wireless remote control
Wrist strap for remote control
VGA cable
Carrying bag
Wireless Manager ME 3.0 (CD-ROM)*

Optional Accessories:

ET-LABS0 Replacement lamp unit
ET-EBS0 Ceiling mount bracket
ET-RM300 Full-function wireless remote control
ET-AGS3 Serial adapter (DIN 8-pole–D-sub 9-pin)

NOTES ON USE

- The projector uses a high-intensity mercury lamp that contains high-intensity pressure. This lamp may break, emitting a large sound, or fail to illuminate, due to impact or extended use. When the lamp is replaced, the brightness of the lamp may gradually decrease with use.
- Power consumption: The lamp, LCD panel, polarizing plate, and polarizing beam splitter are consumable parts. These parts may need to be replaced during the guarantee period if the projector is used for six or more hours per day.
- The replacement cycle of the LCD panel, polarizing plate, and polarizing beam splitter (PBS) will be shortened if the projector is subjected to continuous use for six or more hours. However, the replacement cycle of the lamp will be shortened if the projector is used for six or more hours. Intermittent or interrupted use may affect the lamp’s brightness and life.

To use wireless functions, a PC is required. When using a PC, make sure that the conditions are met.

PC: Microsoft® Windows® XP Professional, Windows® XP Home Edition
CPU: Pentium III or higher, or other compatible processor (1 GHz or higher is recommended)
Memory: 256 MB or more
Free disk space: 60 MB or more
CD-ROM drive: CD-ROM drive or DVD drive

For detailed information about using the projector, see the manual that comes with the projector.

Web browser: Internet Explorer 6.0 or later, Mozilla Firefox 2.0 or later
Direct X: Direct X 9.0b or later must be installed.
Function: Operation is not guaranteed for all computers that meet the above conditions.

Panasonic

Weights and dimensions shown are approximate. Specifications are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations. Panasonic is a trademark of Panasonic Corporation. Windows® and PowerPoint® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respective trademark owners. Projection images simulated.
## SMART Board™ Interactive Whiteboard

### Specifications – Model 680

#### Physical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Interactive Whiteboard: 65 1/4 W × 49 1/2 H × 5 1/8 D (165.7 cm × 125.7 cm × 13.0 cm)</td>
</tr>
<tr>
<td></td>
<td>Active Screen Area: 61 5/8 W × 46 1/8 H (156.5 cm × 117.2 cm)</td>
</tr>
<tr>
<td></td>
<td>77&quot; diagonal (195.6 cm)</td>
</tr>
<tr>
<td></td>
<td>FS670 Floor Stand (with SB660 installed): 65 1/4 W × 67 7/8 H × 40 3/8 D</td>
</tr>
<tr>
<td></td>
<td>(165.7 cm × 172.4 cm to 208.0 cm × 102.5 cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>Interactive Whiteboard: 30 lb. (13.6 kg)</td>
</tr>
<tr>
<td>Shipping Size</td>
<td>Carton: 81 5/8 W × 54 1/4 H × 5 1/2 D (207.3 cm × 137.8 cm × 14.0 cm)</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>Carton and Contents: 44 lb. (20.0 kg)</td>
</tr>
</tbody>
</table>

All dimensions +/- 1/8" (3.2 mm). All weights +/- 2 lb. (0.9 kg).

#### Standard Features

**Software**

SMART Board software, including Notebook™ software. Free software upgrades are available at www.smarttech.com/support/software/index.asp.

**Pen Tray**

Optical sensors in the pen tray detect when a pen or eraser is lifted from the tray. LEDs show the active tool.

**Pens and Eraser**

Black, blue, red and green Whisper-tip™ pens and a rectangular eraser

**Resolution**

Touch resolution is approximately 4000 × 4000

**Screen Surface**

The hard-coated polyester surface is tear proof, optimized for projection, compatible with dry-erase markers and is easily cleaned with whiteboard cleaner

**Digitizing Technology**

Analog resistive

**Frame Finish**

Two-tone gray (approximates Pantone® gray 18-0501) and Ultrasonic Chrome (approximates metallic Pantone 877C)

**Wall-Mount Bracket**

32" (81.3 cm) wide with five screws and drywall anchors to support a wall-mounted interactive whiteboard

**Computer Connection**

16" (4.9 m) USB 2.0 cable

**Power Requirements**

Power is obtained from the computer directly through the USB cable for both Windows® and Macintosh computers. Power consumption is less than 1.5 watts (300 mA at 5V).

**Certifications**

CSA (Canada/U.S.), CE, CB (TUV)

**Warranty**

Five-year limited equipment warranty upon registration. See warranty document for details.

**NOTE:** A digital projector is **not** included with these models of SMART Board interactive whiteboards. To take advantage of all interactive features, you must integrate a digital projector.

### SMART Board Software 9.5 Computer Requirements

**Windows® Computers**

- Pentium® II 450 MHz processor
- 128 MB of RAM (256 MB recommended)
- 136 MB of free hard disk space for minimum installation (511 MB for full installation with Gallery collections)
- Windows NT® 4.0 (SP6), Windows 98 operating system or later
- Microsoft Internet Explorer® 6.0 or later
- Macromedia® Flash® player version 8

**Requirements for SMART Video Player**

- Pentium II 450 MHz processor (700 MHz or faster recommended)
- Windows 98 operating system or later: Does not run on the Windows NT operating system.
- Microsoft® DirectX® technology 8.1 or later

**Mac Computers**

- 700 MHz processor (1 GHz or faster recommended)
- 128 MB of RAM (256 MB recommended)
- Mac OS X versions 10.3.9 and 10.4.x
- 148 MB of free hard disk space for minimum installation (423 MB for full installation with Gallery collections)
- Available powered USB port
- Safari 1.3.2 or later
- SMART Board software version 9.5 supports Intel processors (Universal Binary)

**NOTE:** Previous versions of SMART Board software are compatible with earlier versions of the Mac OS X operating system. To download a previous version of SMART Board software, go to www.smarttech.com/support/software/sb_mac_other.asp.
### Specifications – Model 680

#### Storage and Operating Specifications

<table>
<thead>
<tr>
<th>Storage</th>
<th>-40°F to 120°F (-40°C to 50°C) with up to 95% humidity non-condensing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation</td>
<td>41°F to 95°F (5°C to 35°C) with up to 80% humidity non-condensing</td>
</tr>
</tbody>
</table>

#### SMART Order Number

| SB680            | 77" (195.6 cm) diagonal SMART Board interactive whiteboard          |

#### Optional Accessories

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCJ680</td>
<td>Padded cover with handles for the SMART Board 680 interactive whiteboard</td>
</tr>
<tr>
<td>FS670</td>
<td>Mobile floor stand with 4&quot; (10.2 cm) lockable casters and flip-up anti-tip feet</td>
</tr>
<tr>
<td>HSCJ-680</td>
<td>Hard shipping case for the SMART Board 680 interactive whiteboard and the FS670 floor stand</td>
</tr>
<tr>
<td>PMWT-680</td>
<td>Projector wall mount for an NEC WT600 or WT610 projector</td>
</tr>
<tr>
<td>RS232-NA</td>
<td>RS232 to USB conversion module that allows a serial connection to the interactive whiteboard as an alternative to USB (Canada and U.S.)</td>
</tr>
<tr>
<td>RS232-UK</td>
<td>RS232 to USB conversion module that allows a serial connection to the interactive whiteboard as an alternative to USB (United Kingdom)</td>
</tr>
<tr>
<td>SBA-NA</td>
<td>Two 15 watt speakers to mount to the interactive whiteboard or wall (Canada and U.S.)</td>
</tr>
<tr>
<td>SBA-UK</td>
<td>Two 15 watt speakers to mount to the interactive whiteboard or wall (United Kingdom)</td>
</tr>
<tr>
<td>SYSON6-NA</td>
<td>SystemOn expansion module wakes up the computer and turns on the projector with one button press (Canada and U.S.)</td>
</tr>
<tr>
<td>SYSON6-UK</td>
<td>SystemOn expansion module wakes up the computer and turns on the projector with one button press (United Kingdom)</td>
</tr>
<tr>
<td>USB-XT</td>
<td>16 1/2&quot; (5.0 m) USB active extension cable</td>
</tr>
<tr>
<td>WC6-NA</td>
<td>Wireless Bluetooth Connection between the SMART Board interactive whiteboard and the computer</td>
</tr>
<tr>
<td>WC6-UK</td>
<td>Wireless Bluetooth Connection between the SMART Board interactive whiteboard and the computer</td>
</tr>
<tr>
<td>WMCM-680</td>
<td>Wall-mounted cabinet for the SMART Board 680 interactive whiteboard</td>
</tr>
<tr>
<td>20-00653</td>
<td>Set of four Whisper-tip styluses (black, red, blue and green) and rectangular eraser</td>
</tr>
<tr>
<td>STYF-005-00</td>
<td>Set of four Whisper-tip styluses (black, red, blue and green)</td>
</tr>
<tr>
<td>93-00507-00</td>
<td>16 1/2&quot; (5.0 m) USB-A to USB-B cable</td>
</tr>
</tbody>
</table>
January 10, 2007

Dr. Elizabeth Guin
Northwestern State University
Social Sciences
Natchitoches, LA 71497

Dear Dr. Guin,

It is with pleasure that the STAT (Student Technology Advisory Team) has fully funded your grant proposal for Fiscal Year 2006-07 in the amount of $7,158.00.

Ordering of equipment listed in the grant proposal will take place during the month of January.

Please be reminded that your grant was funded through Northwestern Student Technology Fees, all equipment purchased, therefore, must be used exclusively and directly for/by Northwestern students.

You are commended for, and encouraged to continue your efforts to enrich the learning environment for students at Northwestern State University. Your time, effort, and vision in service of the students are greatly appreciated. If you have questions or need additional information please contact me by phone or via email at: long@nsula.edu.

Sincerely,

Jennifer Long Martin
Student Technology

cc: Dr. Greg Granger