NDSU Technology Action Plan Request

I. Action Plan Introduction and Authorizations

NDSU ORGANIZATION OR UNIT
Apparel, Retail Merchandising and Design Program
Dept. of Apparel, Design and Hospitality Management
College of Human Development & Education
NDSU

TITLE OF PROJECT
Moving Apparel Pattern Making Into The Digital Age

Project Duration (3 years maximum) From: May 2012 To: May 2015

Type of Project (Check one) New XXX Previously Submitted Renewal

Total Technology Fee Request $23,620

Project Director
(Must be NDSU faculty or staff)
Ann W. Braaten, Assistant Professor
Dept. of Apparel, Design & Hospitality Management

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Phone: 701-231-7367
Fax: 701-231-7352
E-mail: Ann.Braaten@ndsu.edu

Name (Type or Print) Signature Date
Project Director Ann W. Braaten March 8, 2012

Unit Head
Holly E. Bastow-Shoop

IT Division Consultant Melissa Stotz

Executive Summary (maximum of 175 words)

We request funds to purchase software to move apparel pattern making into the digital age. This software will allow students to bring their manual pattern making skills into the digital age and to improve their marketability. The Optitex Pattern Design, Grading, Marker Making, and 3-Dimensional Simulation systems are designed to work within the Windows XP, Vista or Win7 operating systems. Nike, Kohl’s, Land’s End, and Target, all companies employing our graduates, use this software. The Optitex System allows designers to send their electronic patterns around the world to wherever apparel production takes place.

This software will have application in five classes in the Apparel, Retail Merchandising and Design Program curriculum: ADHM 355 Flat Pattern Design and Draping, 356 Pattern Drafting and Grading, 357 Product Development: Designing Pants, 370 Sewn Product Manufacturing and Analysis, and 455 Advanced Apparel Assembly.

The ADHM department is remodeling rooms 415 and 416 in the Family Life Center for classroom and laboratory space that will include a computer lab that was once at the Candlewood classroom. The software will be available to our students on these computers.
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II. Project Overview

1. How does this project meet student needs?

This project will provide an opportunity for students to gain a working knowledge of software used by employers for apparel pattern making. Digital knowledge of pattern making is an expectation for entry-level product development positions. Knowledge in OptiTex apparel design software will improve students' marketability to employers, as it is used in many companies who employ our graduates.

2. What audience does this project directly serve? What audience is indirectly served? How many students are affected?

This project directly serves students in the Apparel, Retail Merchandising and Design (ARMD) Program curriculum in the Department of Apparel, Design and Hospitality Management (ADHM). Students in other majors such as Theater Arts may also benefit by knowledge of digital apparel pattern making. The following courses would incorporate the software: ADHM 355 Flat Pattern Design and Draping, 356 Pattern Drafting and Grading, 357 Product Development: Designing Pants, 370 Sewn Product Manufacturing and Analysis, and 455 Advanced Apparel Assembly. Approximately 50 to 75 students per year would benefit from this knowledge.

3. For projects that target a subset of NDSU's students, please describe the possibility for broader application in the future.

The software requested is particular to the apparel industry, but OptiTex offers applications directed at the home furnishing industry and the automobile industry. Interior Design and Architecture, as well as Mechanical Engineering may find an interest in these applications, and our experience with this company's support and products may be useful in helping them to make purchasing decisions.

4. Describe both the immediate and long-term impact of this project.

The immediate impact of this project is in helping to provide the innovative technological skills required for students to be ready for the work force in the apparel industry. It will allow the new the computer lab in FLC 416 to be useful for ARMD students interested in apparel product development. For the long-term, NDSU's ARMD program will be able to offer the same skills that other universities in the region offer their apparel product development and design students. It will bring our program to the next level, allowing us to successfully compete for students interested in apparel product development and for our graduates to compete in the job market.

5. Who will pay for ongoing expenses following the technology fee funded portion of this project (e.g., who will replace hardware or software after it has reached its end of life)?

Each of the classes benefiting from this software has a course fee to support the annual service costs and replacement software and hardware.

6. Describe how this project will follow NDSU's best practices in information technology. (Please make sure the NDSU IT Division staff you consulted signs in Part I of this form.)

OptiTex 2D/3D CAD is a Microsoft Certified Partner. OptiTex output can be imbedded in standard Microsoft applications such as MS Word and Excel. Additional licenses can be added at any time. Phone support is offered 8 a.m. to 8 p.m. and there is a 24-hour web-based support team. We will be accessing the Internet for the 24-hour support, so the computers will need to have the systems authenticated to the NDSU network. A Request for Data Services is being completed to bring two new wireless access points to the classroom. OptiTex software can run smoothly on our laptops run by Windows 7 with a 64-bit operating system. It can handle up to 50 concurrent users at a time and works with wireless access. The OptiTex software will need to be installed on a server in the lab, which can be another computer.

7. What service on campus is most similar to the one proposed here? How does this project differ?

Engineering, architecture and interior design currently teach CAD to their students, but focus on the requirements of their industries. This apparel industry system is available only to schools, and not to individual students, so in order to offer students these skills, the university must hold the license.
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III. Project Description (5 pages maximum)

We request funding to purchase software to bring apparel pattern making at NDSU into the digital age. The ADHM department is currently remodeling rooms 415 and 416 in the Family Life Center for classroom and laboratory space. If this proposal is successful, OptiTex software will be installed on department-owned laptop computers that are currently in our Candlewood classroom. Funding for ten licenses for pattern design software and 3-dimensional simulation software, a numonics digitizer for converting paper patterns to digital patterns, training and shipping is requested. Additional licenses can be added and paid for by course fees as the student population increases.

The OptiTex Pattern Design, Grading, Marker Making, and 3-Dimensional Simulation systems are designed to work within the Windows XP, Vista or Win7 operating systems. Nike, Kohl's, Land's End, and Target, all companies employing our graduates, use this software. The OptiTex System allows designers to create patterns to send electronically to manufacturers around the world. Competence with this software will allow students to bring their manual pattern making skills into the digital age and will improve their marketability.

This software will have application in five classes in the Apparel, Retail Merchandising and Design Program curriculum. They are ADHM 355 Flat Pattern Design and Draping, 356 Pattern Drafting and Grading, 357 Product Development: Designing Pants, 370 Sewn Product Manufacturing and Analysis, and 455 Advanced Apparel Assembly. Support from the Technology Fee Advisory Committee is needed to make this transition into the digital age possible for our students.
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IV. Milestones

List the date for each project milestone. These milestones should represent the significant accomplishments that will be associated with the action plan. For each milestone, please indicate its expected outcome and the means for assessing that outcome. (The table may be extended as needed.)

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
<th>Expected Outcomes</th>
<th>Means of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. May 14, 2012</td>
<td>Send purchase order to OptiTex</td>
<td>Software will arrive in two days</td>
<td>Arrival of items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hardware to arrive in 2 weeks</td>
<td></td>
</tr>
<tr>
<td>2. Aug. 2012</td>
<td>Install OptiTex software on laptop computers, link the laptops to the NDSU internet grid and link the numerics digitizer to the laptops</td>
<td>Software will be installed on hard drives of laptops and the appropriate linkages made</td>
<td>Successful installation</td>
</tr>
<tr>
<td>3. Aug. 2012</td>
<td>Take part in two days of OptiTex Web Training</td>
<td>Working knowledge of OptiTex software and hardware</td>
<td>Ability to operate software and hardware</td>
</tr>
<tr>
<td>4. Fall Semester 2012</td>
<td>Offer seminar to senior ARMD students interested in learning the OptiTex system</td>
<td>Teaching experience with OptiTex software and hardware, and students' knowledge of digital pattern making</td>
<td>Ability to teach students to operate software and hardware, and successful creation of patterns and plots.</td>
</tr>
<tr>
<td>5. Spring Semester 2013</td>
<td>Incorporate use of OptiTex software into classes</td>
<td>Student knowledge of digital pattern making</td>
<td>Successful creation of patterns and plots.</td>
</tr>
<tr>
<td>6. Future Semesters</td>
<td>Continue to incorporate software into classes</td>
<td>Student knowledge of digital pattern making</td>
<td>Successful creation of patterns and plots.</td>
</tr>
</tbody>
</table>
OptiTex Price Proposal

Thank you for the opportunity to present OptiTex software. OptiTex’s suite of software offers great benefits to your organization such as dramatically increased productivity leading to cost savings and creating full scale automated procedures.

Since 1987 OptiTex has been at the forefront of manufacturing Pattern Design, Grading, Marking, Automatic Nesting, 3-D simulation, and Animation software for the sewn products industry. Our applications are specifically designed for Windows XP, Vista or Win7 operating systems. OptiTex software interfaces with many different types of hardware, including printers, plotters, cutters and digitizers from most manufacturers. OptiTex also communicates with PLM/PDM using XML and APIs. All OptiTex data can be communicated between other software packages through our direct converters, in addition OptiTex can output in several CAD/CAM file formats. OptiTex 3D data can be imbedded and viewed in all standard Microsoft applications such as MS Word, Excel and Internet Explorer. OptiTex is the first CAD vendor to be fully recognized as a Microsoft Certified Development Partner.

OptiTex conveniently integrates the two worlds of 2D and 3D product development in one easy-to-use interface. Flat patterns created in OptiTex PDS, or converted from other CAD systems, can be viewed on parametric virtual models or a body scan input of your fit model or form. The patterns can be checked for construction, fit and draping, without having to switch between different applications. The results, including fabric designs, can be shared via standard web browsers with anyone in the product development process. This unique 3D collaboration tool can also be used in conjunction with textile design systems to generate virtual storyboards for merchandising.

We are proud to include: Nike, Kohl’s, Land’s End, Patagonia, Target, Cherokee, Hugo Boss, Chico’s, Wal-Mart, Volcom, Tommy Hilfiger, Lane Furniture, COACH Leather, Porsche, BMW, Faurecia and Johnson Controls (JCI), among our list of satisfied customers.

OptiTex is currently available in over 24 languages with over 25,000 installations world-wide. OptiTex offers full support and customer care through our network of dedicated distributors and regional headquarters in locations such as the US/Europe/Middle East/Asia.
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OptiTex Price Proposal
IMS + Training

Warranty, Upgrade & Maintenance Contract
Customer Care

OptiTex offers the latest support tools which include a variety of on-line and off-line options. Using the Web Portal, you can request a new feature, tool, option, or any improvement you can think of. As a software-only company, OptiTex will implement new features requests in the next released Service Pack (depending on complexity of request). No company is too small or too large to request a feature. OptiTex does not prioritize on importance of client but rather on importance of feature.

Web Support

- Phone support from 8 am to 8 pm / FAX (extended hours w/ overseas support).
- Email support support.usa@optitex.com.
- Web (TeamViewer) Online Support & Training.
- 24 hour Web-based support support.optitex.com
- Software updates and utilities, available 24 hours.
- Feature Requests

Software Documentation and Knowledge Base.

- All the software documentation is grouped into one online web site http://help.optitex.com. This web site enables us to deliver the most up-to-date information on all OptiTex products.
- Registered users to this web site can get notification on specific features as well as sharing your own thoughts on any topic.
OptiTex Products

Pattern Design System (PDS)

Leveraging on the latest Microsoft development tools, our unique approach to the ‘On-Screen Pattern Design’ capabilities has earned OptiTex great appreciation from our users.

Our powerful OptiTex PDS is designed to easily draft new styles or use an existing pattern to design from slopers. Users can fully customize the workspace by moving and editing toolbars, window placements, shortcuts, themes, and preferences. PDS provides a full suite of features and functions designed with sewn-products manufacturers in mind.

- Piece generation from scratch by using intuitive & advanced drafting tools without using a digitizer.
- Import/Export from/to a wide range of CAD/CAM applications.
- Quick and sophisticated file management utilities.
- Numerous Dart commands for opening single or multiple darts, editing, rotating, and shaping
- Special treatment of seamed corners.
- Extended measurement tools to automatically compare lengths of pieces,
- Walking tools to accurately check, correct, and balance the pattern. Walk Groups: create a group of pieces to be walked together.
- Ability to change any parameter with a mouse click at any stage of your work. No need to navigate through numerous menus and commands.
- Export Cutter’s Must, Spec pack (* add-on)
- Reporting of pieces information to Excel for integration with any report generator as per your choice.
- Cut Order Optimization. Cut Plan Order (* add-on)
- On-line help for menu items tools and features.
- Online instructional videos for several tools and features.
- Ability to send plot files to any FTP address on the net.
- Export pattern files to a variety of CAD formats, integrate with PDM and PLM systems
- Familiar Windows work environment for easy navigation.
- Create Multiple Style Sets in one file.
- Track history of style, store multiple versions.
OptiTex Grade, our unique automatic and manual grading software, is designed to simplify grading. Intuitive software combined with sophisticated grading features makes the most difficult grading swift and accurate. Built-in dialog boxes are specifically designed to ease complicated grading on notches and split parts; angle grading is used on difficult points. Variation grading for interim sizes is a particularly important feature for products such as jackets and jeans.

Sizes are easy to recognize using OptiTex Grade's built-in color coding system. Grade rules can be defined either for single points or for the entire piece, while entire grade libraries are exportable into other applications such as Microsoft Excel.

OptiTex Digitize, our interactive digitizing software allows you to see your patterns on the screen while being digitized. You can digitize all types of contours and internal parts, grade them, assign piece attributes and any information needed for marker making while digitizing.

- A large variety of grading methods.
- Grade rules for single points or entire pieces.
- Rule libraries are loaded automatically with their matching patterns.
- Fast and easy grading of darts, pleats, buttons, lines, and other internal contours and elements.
- Angle grading simplifies grading on difficult points.
- Instant size addition or removal at any stage of the grading operation.
- Easy size recognition with OptiTex's built in color coding.
- Import/Export grading libraries from/to other CAD systems or applications such as Microsoft's Excel.
- Unlimited Variation Grading for interim sizes, particularly important for products like jackets, jeans and more...
- Grade by Scale: Apply grading values by resizing the whole piece.
- Copy and Paste grading from piece to piece.
- Compare Length tools to ensure accurate grading.
- On-line help for menu items tools and features.
- Online instructional videos for several tools and features.
- Ability to send plot files to any FTP address.
Marker

OptiTex Marker module is designed to maximize productivity and minimize labor and material costs.

Marker allows maximum flexibility. While marking patterns you can change the marker dimensions, allow for different quantities for each piece, and change the number of piles, the layout mode and all system parameters at any stage of the process. OptiTex's manual, automatic and interactive marker making generates nested layouts at lightening speed while minimizing material waste. Save time and money while cutting down on wasted fabric.

- Maximum flexibility while marking patterns. Change quantities, marker dimensions, number of piles, layout mode and all mark parameters at any stage of operation.
- Switch between automatic and manual marker making modes at any time.
- Calculate optimum number of layers and minimum remainders with OptiTex's built-in waste calculations.
- Ensure placement of completed bundles on the marker and get reports for remainders.
- Forecast results and save time with preliminary calculations before marking.
- Automatically detects overlapped pieces before saving, plotting and cutting.
- Substitute pieces and sizes on the marker at any time.
- Optimize pattern layout on fabric repeats with sophisticated stripe and plaid matching features for regular and diagonal stripes.
- Import/ Export from/to other CAD/CAM applications.
- Automatic Compacting for further tightening of markers.
- Create Queue of unlimited markers for overnight plotting.
- Cut order optimization for seamless cutting at minimum time for a wide range of automatic cutters. Automatic detection of shared lines for cut optimization.
- Most extensive output device support available on the market for plotters and cutters.
- Ability to send plot files to any FTP address. Link with XML to other systems.
- Reporting of all marking information to Excel for further computing or integration with any report generator as per your choice.
- On-line help for menu items tools and features.
- Much more! Please visit the following link for more information.
OptiTect’s Advanced Automatic Nesting application incorporates an intelligent algorithm for nesting. Nest++2 delivers comparable and often better results than achieved manually. Nest++2 respects all existing constraints including the time limits given for each marker.

Features of Nest++2

- Nesting by selected pieces or sizes alternatively.
- Automatically grouping pieces on the marker by sets for easy piece collection.
- Run Nest++2 in background while using PC for other applications.
- Nest++2 suggests alternative solutions for a single marker.
- Nest++2 reworks markers for different material widths and proposes the best results.
- Nest++2 provides comparison tables to analyze the marker results.
- With optional Import or Conversion modules, use Nest++2 with other CAD systems.
- Increases material efficiency in less time.
- Time (labor) savings in marking (nesting) duties.
- Can be run locally or from a network, allowing access to multiple users.
- Nesting Queue - Optimize your markers automatically during the overnight hours.
- Respects all existing constraints such as directional rotation, tilt allowance, and time limits given for each marker.
- Nest++2 can also be used to obtain precise cost proposals for clients during price negotiations.

Match++ - Walking safely between the Stripes

Match++ is a fully automatic Matched Fabric Nesting System. Match++ is a great nesting tool for users of upholstery, apparel and industrial fabrics who routinely work with stripe, plaid, railroad and flow-matched fabrics. Pattern pieces can be related to the fabric or to other pieces in the layout. The speed and accuracy of Match++ makes it beneficial for use in both manual and automated cutting. The user can even match lace fabric for the intimate industry, using either orthogonal or angle direction. Pre-verification allows the user to revise patterns and fabrics to ensure quality, while saving valuable time and money.
3D Runway Creator

OptiTex 3D Runway is a True-to-Life Fabric Simulation System. The 3D Module runs inside PDS or Modulate. 3D Runway offers the user a suite of tools that will simulate all pre-production activities related to fitting, visualization and color variation. 3D Runway is designed to be used as a communication tool between the retailer, designer, pattern maker, manufacturer and the engineering, merchandising and management departments. Using the 3D Runway suite of tools allows the visualization of any pattern modifications instantly in full 3D form based on accurate CAD patterns and real fabric characteristics.

OptiTex 3D Runway improves Time-to-Market by reducing product development time, reducing cost of multiple iterations of sample garment production, analyzing fabric behavior, offering proof-fitting assumptions and providing a graphic collaboration tool for all involved in the product development process. It also provides an excellent tool for sales and marketing, with the easy-to-use 'virtual storyboard'.

OptiTex 3D Runway offers the user a wide range of highly detailed parametric mannequins that feature over 40 adjustable body measurements, including several posture positions that can be saved for multiple uses. Users can create their own specific base-size mannequins (virtual fit models), saving a great amount of fitting time.

3D Runway comes with a set of standard fabric definitions. Definition of physical attributes such as strength, weight, bends and shear can be defined for each pattern. The user is able to add to the Fabric Library his/her own types of fabrics. Standard Fabric testing, such as FAST and Kawabata are used to enter in your own fabrics.

Do consider the following add-ons to the 3D Runway Creator:

- **3D Runway Animation** - fixed sized avatar that walks.
- **3D digitizing** - digitize over ready-made garments and instantly review the addition on the 2D pattern.
- **3D Flattening** - design on a bare 3D model and flatten the marked pieces onto the 2D PDS environment.
Runway Designer

OptiTex 3D Runway Designer fashion software is a realistic cloth simulation / cloth modeling software system based on accurate CAD patterns and real fabric characteristics. Using OptiTex™ 3D Garment Draping and 3D Visualization software system - designers, pattern makers, and retailers can visualize any pattern modifications instantly in full 3D.

Using OptiTex 3D Runway fashion software will reduce product development time, cost of multiple iterations of sample garment production, enhance quality of products due to use of accurate modeling system software, analyze fabric behavior, proof-fitting assumptions, and provide a graphical collaboration tool for all involved in the product development process. It also provides an excellent tool for sales and merchandising, with easy to use virtual storyboards.

Direct Converters/Exporters

OptiTex Direct Converters are compact software applications that read and convert the Gerber, Microdynamics, Lectra, and Investronica native formats directly into OptiTex, while maintaining piece, style and grading native data. Direct Converters save precious time by eliminating data transfer difficulties that can occur while using standard transfer formats such as DXF, AAMA, and ASTM. OptiTex's Direct Converters are extremely easy to use with a very fast response. Direct conversion of hundreds of Gerber, Microdynamics, Lectra or Investronica files is completed in a matter of seconds. OptiTex Direct Exporters are available for Lectra and Gerber systems which save the OptiTex file in a Lectra (MDL/PLX) or Gerber (TMP/ZIP) format.

Import/Export

A unique list of Import/Export capabilities makes OptiTex software the most flexible CAD system for sewn products on the market today and assures communication with the rest of the world. Supported files include: DXF, AAMA, ASTM, Adobe Illustrator - AI, NC, ISO, HPGL, HPGL-2, MicroJet and more.

Ten different file formats are importable while over twenty formats are exportable. Whether using automatic cutting machinery, plotting devices, or other software applications, OptiTex is bound to generate a file format acceptable to that system.
**Modulate - Made-to-Measure**

*Modulate* is an interactive, parametric, Made-to-Measure (MTM) engine that allows for customization of the product by defining the dimensions designated for alteration.

For example, a parametric jacket can be defined using dimensions such as 'Shoulder', 'Bust', 'Waist' and 'Hips'. The user can visualize each step of the process while defining the parametric model. When the user drags the 'Shoulder' dimension with the mouse, *Modulate* recalculates the entire jacket accordingly.

The immediate effect is displayed on the screen. If the change does not produce the desired result, the user can immediately change back the dimension or alternatively add or remove a different dimension.

Once the parametric jacket has been fully defined, modification to the jacket can be visualized interactively by simply entering new values for the dimensions. All specifications, dimensions, styles and orders are maintained in a standard database for repeat orders. *Modulate* can be grouped with 3D Runway Designer and will recognize measurement values and 3D scanned data from most types of 3D body scanners. Values that come from the 3D scanner will change the pieces' styles automatically.

*Modulate* streamlines a company's method of generating Made-To-Measure patterns. Patterns from other non-OptiTex CAD systems can be imported for use with *Modulate*. The modified patterns are then automatically arranged for efficient plotting or cutting. *Modulate* works perfectly with other OptiTex products such as PDS and 3D Runway Designer.
OptiTex Price Proposal:

OptiTex Apparel CAD System

### Software (A)

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<tr>
<th>Quantity</th>
<th>Description</th>
<th>MSRP Price</th>
<th>School Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>OptiTex PDS + GRADE + MARK + DIGITIZE full feature Software License (*)</td>
<td>$8,300</td>
<td>$830</td>
<td>$8,300</td>
</tr>
<tr>
<td>10</td>
<td>OptiTex 3D Runway Creator- Physical parametric networking version for design and draping in true 3D environment</td>
<td>$10,000</td>
<td>$1,000</td>
<td>$10,000</td>
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<tr>
<td>1</td>
<td>Network License</td>
<td>$550</td>
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<td>2</td>
<td>OptiTex Training</td>
<td>$700</td>
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<tr>
<td>1</td>
<td>Shipping and Handling</td>
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### Hardware (B)

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<tr>
<td>1</td>
<td>36&quot; x 48&quot; Numonics Digitizer with 16-button cursor and manual tilt stand</td>
<td>$2,990</td>
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<tr>
<td>1</td>
<td>Digitizer Shipping</td>
<td>$350</td>
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<tr>
<td>1</td>
<td>HP 42&quot; Plotter</td>
<td>$5,990</td>
</tr>
<tr>
<td>1</td>
<td>Plotter Shipping</td>
<td>$350</td>
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</table>

(A)Total: $20,280  
(B)Total: $9,680  
Grand Total: $29,960
Remarks

- (*) - prices are for the above configuration. When purchased in a different configuration, each license of PDS is priced at $460, every second module is priced at $240 and every 3rd module is priced at $130.
- Prices include Training; please refer to our Training section below for more details.
- A discount was provided for some of the above modules as part of our offering for selected Educational Institutes.
- Choose the most appropriate plotter for speed, size, and capabilities. Ask for details on your plotter (and digitizer) choices.
- OptiTex EULA can be requested prior to official software installation.
- This proposal is valid for 30 days from 02/10/2012.

Implementation Management and Training

Training is required and is 2-3 days for above modules. Up to 4 people can attend a training session (up to 2 people in case of WEB training). Scheduling is subject to the availability of our training facility.

Web Training

Price: $700 Per Day - OR - $200/2Hr.
(Most popular)

Web trainings are completed in up to two-hour sessions. Eight total hours are completed per day of web training purchased. Web trainings can be scheduled for one or two sessions per week. (Average of 2 day purchase for PDS/GRADE/MARK). Web training may be purchased for $200/2hr session.

In-house Training

Price: $700 Per Day
(Plus $100 if done in 2 half day sessions)

In-house trainings are conducted at our offices. Travel arrangements should be made by the customer, but feel free to ask about accommodations nearby.

Onsite Training

Price: $850 Per Day
(Plus expenses)

Onsite trainings are conducted at the customer’s location. Travel arrangements may be made by the customer or by the trainer. Trainers will stay at a three-or-more star hotel, with some exceptions. Trainers will check in the day prior to any training, and will check out the morning of the last day of training. Trainers should be provided with a means of transport to and from the training site either by rental car or by taxi. Please contact your salesperson for details about onsite training.
Warranty, Upgrade & Maintenance Contract

- First year maintenance - Includes phone/WEB Support/E-mail/FAX/24/7 online web support system and knowledgebase (CRM)/ support and software maintenance upgrades at no cost.
- Following years - Our Platinum plan featuring full phone/WEB Support/E-mail/FAX support as well as all minor and major upgrades released during the period is available for a fee of 20% of the purchase price.
  Note: OptiTex will prorate the above fees when the customer decides to enroll back in the Platinum Plan should the customer decide not to enroll in the Platinum Plan at the end of the first coverage year.
- Plotters - Software is inclusive in above mentioned maintenance contract, Hardware carries one year parts and labor (does not include shipping fees)
- HP Plotter - Software is inclusive in above mentioned maintenance contract, Hardware carries standard HP warranty.
- Numonics Digitizer - Software is inclusive in above mentioned maintenance contract, Hardware carries two Years Parts and Labor

Delivery
Software - via FEDEX - 2nd day service.
Hardware - please allow 2 weeks for delivery (on average)

Availability
Software - Will be provided via download (OTA), license keys are in stock
Hardware - Back to back orders

Payment terms
Software - 100% net 30
Hardware - 100% required with receipt of purchase order.
Prices quoted are on Net basis (excluding insurance and handling charges).
Payment methods: Check, Bank transfer.

Please feel free to contact me if I can be of further assistance.

Sincerely,

Sabrina Cove

Account Executive, OptiTex USA Inc.
NDSU Technology Fee Action Plan Request
VI. Budget

1. NDSU ORGANIZATION OR UNIT
   Apparel, Retail Merchandising and Design Program (ARMD) in the Department of Apparel, Design and
   Hospitality Management (ADHM), NDSU.

2. PROJECT DIRECTOR(S)
   Ann W. Braaten, Assistant Professor, ADHM

3. SALARIES AND WAGES
<table>
<thead>
<tr>
<th>Personnel description</th>
<th>Number employed</th>
<th>Number of months</th>
<th>Funds Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Staff</td>
<td>1</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>B. Graduate Students</td>
<td>0</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>C. Undergraduate Students</td>
<td>0</td>
<td></td>
<td>0.00</td>
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4. TOTAL SALARIES AND WAGES
   0.00

5. FRINGE BENEFITS
   0.00

6. TOTAL SALARY, WAGES AND BENEFITS
   0.00

7. EQUIPMENT
   Software
   A. 10 Site licenses for OptiTex PDS + Grad + Mark + Digitize X $830  $ 8,300
   B. 10 OptiTex 3D Runway Creator X $1000   $10,000
   C. 1  Networking license X $550          $  550
   D. 2  OptiTex Training $700 per day  $ 1,400
   E. 1  Shipping and Handling $30         $  30
   Hardware
   F. 36" X 48" Numonics Digitizer with 16-button cursor and Manual tilt stand  $ 2,990
   G. Digitizer Shipping                  $  350

8. TOTAL EQUIPMENT
   $23,620

9. MATERIALS AND SUPPLIES

10 TOTAL MATERIALS AND SUPPLIES
   0.00

11. TOTAL TECHNOLOGY FEE REQUEST
    $23,620

12. MATCH (Describe in Match Section)  see match section

13. TOTAL PROJECT EXPENDITURE
    $23,630
NDSU Technology Action Plan Request

VII. Budget Justification

The costs associated with OptiTex software and hardware for digital apparel product development, are consistent with other software licenses offered to academic entities. The advantage of OptiTex is that it is developed by a Microsoft Certified Partner, offers 24-hour tech support, and is used by companies employing our graduates. The ARMD program needs the Technology Fee Advisory Committee’s financial help to acquire the software and hardware to make this transition to the digital age possible.
The department of Apparel, Design and Hospitality Management are paying for the renovation to FLC 415 and 416, the laptop computers, the service agreement with ITS to support the computers, and the faculty to implement this plan. The Technology Fee Advisory Committee's support will help give students in Apparel, Retail Merchandising and Design access to cutting-edge knowledge, making them better prepared for the job market.
NDSU Technology Action Plan Request:
Moving Apparel Pattern Making Into The Digital Age

Requested by:
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Apparel, Retail Merchandising and Design Program
Dept. of Apparel, Design and Hospitality Management
College of Human Development & Education
NDSU