β-TEK Software

# Proposal For:

# Virtual Loom

Prepared For:

Spinners and Weavers Guild of Montana

Submitted By:

Joshua O. Lee
B-TEK Software
October 7, 2012

β-TEK Software

Joshua O. Lee
B – TEK Software
125 Nowhere Road
Somewhere, MT 55555
(406)111-2222

Spinners and Weavers Guild of Montana
123 Any Street
AnyTown, MT 12345

October 7, 2012

To Spinners and Weavers Guild of Montana:

This proposal is in response to your request for a weaving software that your organization is wanting to sell to support your group. My team and I have prepared a design we hope will fit your needs and cost. In this design we have focused primarily on making the software as easy to understand and use as possible without sacrificing functionality.

We understand that this software will be targeted at an older demographic that may not have the experience with computers needed to run a program like DBWeave. With this in mind, we are working hard to layout the interface as intuitively as possible to make it easy for anyone to use. When we are finished with this program, anyone with basic computer experience will be able to create their own weave pattern and have it woven on a “virtual loom”.

At B-TEK Software, we strive to provide our customers with quality software that will meet their needs in a changing market place. If you have any questions or comments in regard to this proposel, please feel free to contact us as soon as possible. We will be happy to work with your company to address any additional needs or questions  you may have.

Sincerely,

Joshua Olaf Lee
Project Manager

β-TEK Software

# TABLE OF CONTENTS

β-TEK Software

# Review of Specifications

It is our understanding that the Spinners and Weavers Guild of Montana is in need of a weaving program that they will be able to market and sell to older users. The software must be easy to learn, have an easy to use user interface, and be able to used without a pseudo programing language. It is also our understanding that you need this software by the Christmas season for sale and that you have limited financial resources available. We at B-Tek understand that software development is by no means inexpensive and that an organization like yours may have trouble obtaining the resources to pay for such a piece of software. We at B-Tek are willing to work with you and your organization, from negotiating price to setting up a payment plan. We want to help you any way we can.

β-TEK Software

# Overview of the Design Approach

The weaving software will consist of two main interfaces: one where the user creates the pattern the other “virtually weaves” the pattern. On the weaving interface the user will select the size of the pattern based on the number of threads the pattern will be width and height wise. The user will then be able to select the color of  the warp and the weft. A base mesh will then be drawn with all warps on top by default. The user will only have to click where the threads intersect to select if the warp will be under the weft or not. Once the user creates the pattern they will be able to virtually weave their pattern. All they will need to do is select the width and height of the fabric, then the computer will create an image on screen showing what the fabric would look like if it was weaved. The user will also be able to save their patterns for later use.

β-TEK Software

# Project Overview

## Summery Of Project Specifications

**Customer:**

Spinners and Weavers Guild of Montana
123 Any Street
AnyTown, MT 12345

**Product:**

Virtual Weaving Software

- Simple intuitive interface
- No complex computer knowledge or experience required to use
- Easy and fast to set up and get started
- Create and save patterns
- Have the patterns weaved on a “virtual loom”

**Purpose:**

Create a Virtual Weaving Software similar to DBWeave but easier to learn and use. Must be finished before Christmas.

## General Overview

We have split the development of this software into four major steps. First, we will be focusing on designing and building an easy to use and learn interface. Second, we will be writing the actual code for your program. Third, we will debug the software till it is as completely glitch free as possible. The last step is finalization and writing documentation. Each one of these steps will be described in detail on the following page.

β-TEK Software

# Project Schedule

**Graphical User Interface(GUI) Design:**
During this stage, we lay out the look and feel of the Graphical User Interface(GUI). During the design of this interface, we will take special care to make the GUI as easy to understand and use as possible. This will make the overall program easy to learn and use for anyone with basic computer knowledge. This stage of the design will take 1½ weeks.

**Programing:**
During this stage we write the actual software. This stage will take about 3 weeks to complete, and also will overlap a ½ a week with the Interface Design phase.

**Debugging:**
During this stage we do our best to break the program that we finished. This is to ensure that the final product has as few bugs possible. Since this will be a product intended for sale we are devoting extra time to debugging the software. We will support the software free of charge for 60 days in the unlikely event that that we missed a bug during our debugging of the software. This stage will take about 2½ weeks to complete.

**Finalization:**
This stage is just last minute touch-ups and writing documentation. During this stage we will also show you and others in your organization how to use this program if desired. This stage will take no more than a week.

β-TEK Software

# Timeline & Cost Est.

According to our estimates this project will take about 7 weeks to complete and cost about $40,387.60. Based on the current time frame the software you requested will be ready around the first week of December. The following timeline will show how B-Tek has allocated their time to complete this project, and the following cost estimate will break down the cost of developing this software. B-Tek will let the Spinners and Weavers Guild of Montana know of any changes are made to this timeline or the cost est. its self.

| Project Timeline | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Task** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** |
| GUI Design | | | | | | | |
| Programing | | | | | | | |
| Debugging | | | | | | | |
| Finalization & Documentation | | | | | | | |

For labor costs B-TEK charges $27.40 an hour per engineer and will assume a 40 hour work week. A 15% fee will be added to the total. A total of five engineers will work on this project, and your organization will be given a 5% small business and organization discount.

**Cost Est.**

| | **Hours** | **Cost** |
|---|---|---|
| GUI Design | 60 | $6,576.00 |
| Programing | 120 | $15,344.00 |
| Debugging | 100 | $12,604.00 |
| Finalization & Documentation | 40 | $2,192.00 |
| | 320 | $36,716.00 |
| | 15% Fee | $5,507.40 |
| | 5% Discount | -$1,835.80 |
| | **Total Cost:** | $40,387.60 |

β-TEK Software

# Deliverables

B-Tek software will provide the following during the development of the project:

- Project Timeline
- Project Updates (upon request)
- Weekly Updates

This will help us to work closer with Spinners and Weavers Guild of Montana during the development cycle to make sure the Virtual Loom is built exactly the way you would want it. Once the Virtual Loom is finished it will have the following provided with it:

- A hard and digital copy of a manual for the software
- Free software support for 60 days

Once the Virtual Loom is complete it will be able to do the flowing:

- Allow the user to easily and quickly create weave patterns
- Allow the user to save weave patterns
- Allow the user to select colors for the thread
- Virtually weave the pattern across fabric
- Will have an intuitive interface
- Will be easy to learn and setup
- Will be able to be used easily by users with little computer experience

β-TEK Software

Josh O. Lee
Patton3@live.com

Highway 310, Joliet MT 59014
(406)962-3726

**Education:**

**Fromberg High school** **Fromberg, MT**
Graduated May 2011

**Montana State University Billings Collage Of Technology** **Billings, MT**
2nd Year, Application and Program Development

**Work Experience:**

**Dave Young**
June 2011 – August 2012
Construction and Renovation

**Computer Skills:**

- Operating Systems
  - Windows
  - Linux
- Programming Experience
  - C/C++
  - BASIC
  - JAVA
  - C#
  - HTML
  - JAVA Script
- Some Electrical Engineering Experience
- Extensive Computer Repair Experience
- Proficient in the 3D Modeling Software Blender
- Proficient in the Graphics Program FireWorks

**General Skills:**

- Welding
- Small Engine Repair
- Carpentry
- Accounting
- Business Management

β-TEK Software

# Project Team

**Nelson, Justin R.** (NelsonMT@live.com) – Database Software Tech; Justin is attending Montana State University of Billings at the College of Technology to pursue his Computer Programming Degree. So far what he has learned is Java, CSS, Linux, Windows, Visual Basic, Word, Excel, Access, and MySQL.

**Murillo, Joseph** (No E-Mail Available) - Full-time student at MSUB College of Technology. Works full time at All American Pharmaceutical and at Wendy's part time. Previously worked at Yellowstone E-Waste solutions and Wal-Mart. Interests include programming in Gambas, Linux, graphics design, and modding in Doom 3.

**Kelly, James** (No E-Mail Available)) – I am currently a full-time student at the MSUB City College enrolled in the Programming and Software Development in which I have made the Dean's List (Honor Roll) every semester to data with only two left to go. When I graduate, I will have an AAS, though I will be pursuing internships and further education.

**Lee. Parker** (darkstar59102@gmail.com) Computer Hardware Specialist; Full time student at MSUB COT with double major in computer networking and programing. Over twenty years of work in the field with computers. A+ Certified, Cisco Certified Network Administrator, and Dell Certified Systems Expert. Hardware experience includes Cisco routers and switches, Servers, Desktops, Laptops, Audio, LCDs and Projectors, Tablets, and Phones.