**Supplier Configuration Utility**

**TraceGains, Inc.**

**Orion Kostival**

**March 8, 2013**

1. **Introduction**

**TraceGains, Inc. is an emerging document management company that aims to attach actionable intelligence to the data extracted from their customer’s documentation. Focused heavily on the food manufacturing industry, the main goal of TraceGains is to provide their customers with a way to digitize their documents and attach real-time monitoring to the data present in those documents. A majority of food manufacturing companies currently have filing cabinets full of regulatory documents which will often satisfy the federal health and safety requirements, but does not allow the companies to extract and act upon the meaningful data within those documents. By digitizing these documents, extracting data from them and analyzing the data as it is received, TraceGains can provide instant feedback based on the customer defined specifications. This helps reduce costs for the customer as well as the customer’s suppliers all while ensuring that the suppliers are meeting the outline quality and safety standards. The ultimate goal for TraceGains is to enable continuous improvement of the food manufacturing process across the industry.**

**TraceGains has a great solution for their customers once the system is fully configured and they are able to begin utilizing the software as intended, however the initial configuration is currently a very cumbersome process. For each TraceGains customer, the initial configuration phase can take anywhere from two weeks to six months due to the fact that everything about the software is fully configurable and can be completely tailored to fit the customer’s business needs. There is currently no defined user interface to assist with the initial configuration process of a customer’s suppliers and ingredients, which often takes about 33 percent of the time for an initial configuration. The vision for the project is that a new user interface can be designed and implemented to satisfy these needs and ultimately give the customer a way to configure their own suppliers and ingredients. If a user friendly interface can be designed to assist in the completion of the project, this will likely free up several weeks of time for the internal staff to allow them to assist with other configuration tasks or customer training. This particular configuration utility is a small piece of the long term goal that will ultimately allow each customer to completely configure their own site.**

1. **Requirements**
   1. **Functional Requirements**
      1. **The utility must provide an interface for configuring suppliers, ingredients**
      2. **The utility must provide an interface for associating suppliers and ingredients**
      3. **The utility must provide a way to upload suppliers, ingredients and supplier/ingredient associations from an Excel spreadsheet**
      4. **The utility must provide a way to delete suppliers, ingredients and supplier/ingredient associations**
      5. **The utility should allow for inline editing of supplier and ingredient information on their respective pages**
      6. **The utility should not commit any data to the database (including data from an Excel spreadsheet) until the user performs a commit**
      7. **The utility should provide a method for exporting suppliers, ingredients and supplier/ingredient associations to an Excel spreadsheet**
      8. **The utility must not allow for duplicate suppliers or ingredients to be created (based on hID)**
      9. **The utility must not allow for suppliers or ingredients to be deleted if they are part of any supplier/ingredient association**
      10. **The utility should provide sorting, filtering and paging capabilities**
   2. **Non-Functional Requirements**
      1. **The utility must interface with the existing security and login framework**
      2. **The utility should utilize the standard page template present in the existing web application**
      3. **The utility must run under IIS 7.0**
      4. **The utility should be written in C# using Telerik controls**
      5. **The utility must store data in the existing database with no schema changes**
      6. **The utility should be fully supported on all IE7 – IE10 browsers**
      7. **The utility should be fully supported on a 1024x768 resolution screen**
2. **System Architecture**
3. **Technical Design**
4. **Design & Implementation Decisions**
5. **Results**