User Interface Portfolio

This document contains screenshots and simple descriptions of some web and desktop applications I've designed and built in the last two years. In each of these projects I have led both the design and actual implementation all features shown here. What you're seeing is my personal contribution to the projects, and is a combination of my UI sensibilities (design) and my technical skills (implementation).

Investment and Workflow Management tool for an Investment Management company

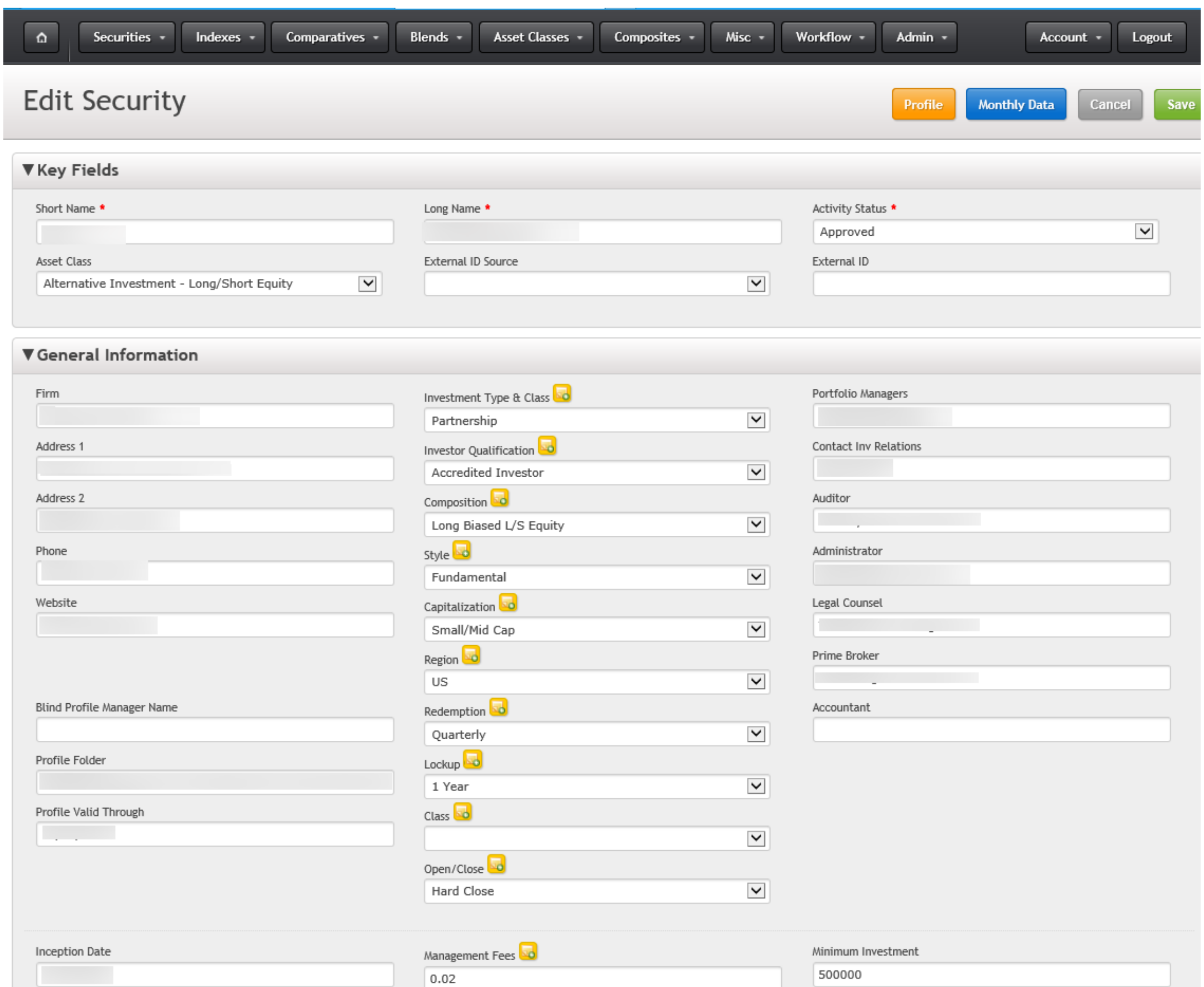
I developed this application over the course of two distinct projects. The first project implemented a system with which the company managed profiles of investment managers in order to assess their risk and investment worthiness. This consisted of editors to manage quantitative and qualitative data for each fund, and a “profile” report system for presenting this information, and accompanying analysis, in a PDF report.

The second project replaced an aging Excel-based workflow management process for the company. I designed a custom workflow management solution with a graphical workflow component to guide users through about 25 distinct business workflows.

The applications were built using Microsoft ASP.NET/MVC, with a KnockoutJS/BootStrap front end.

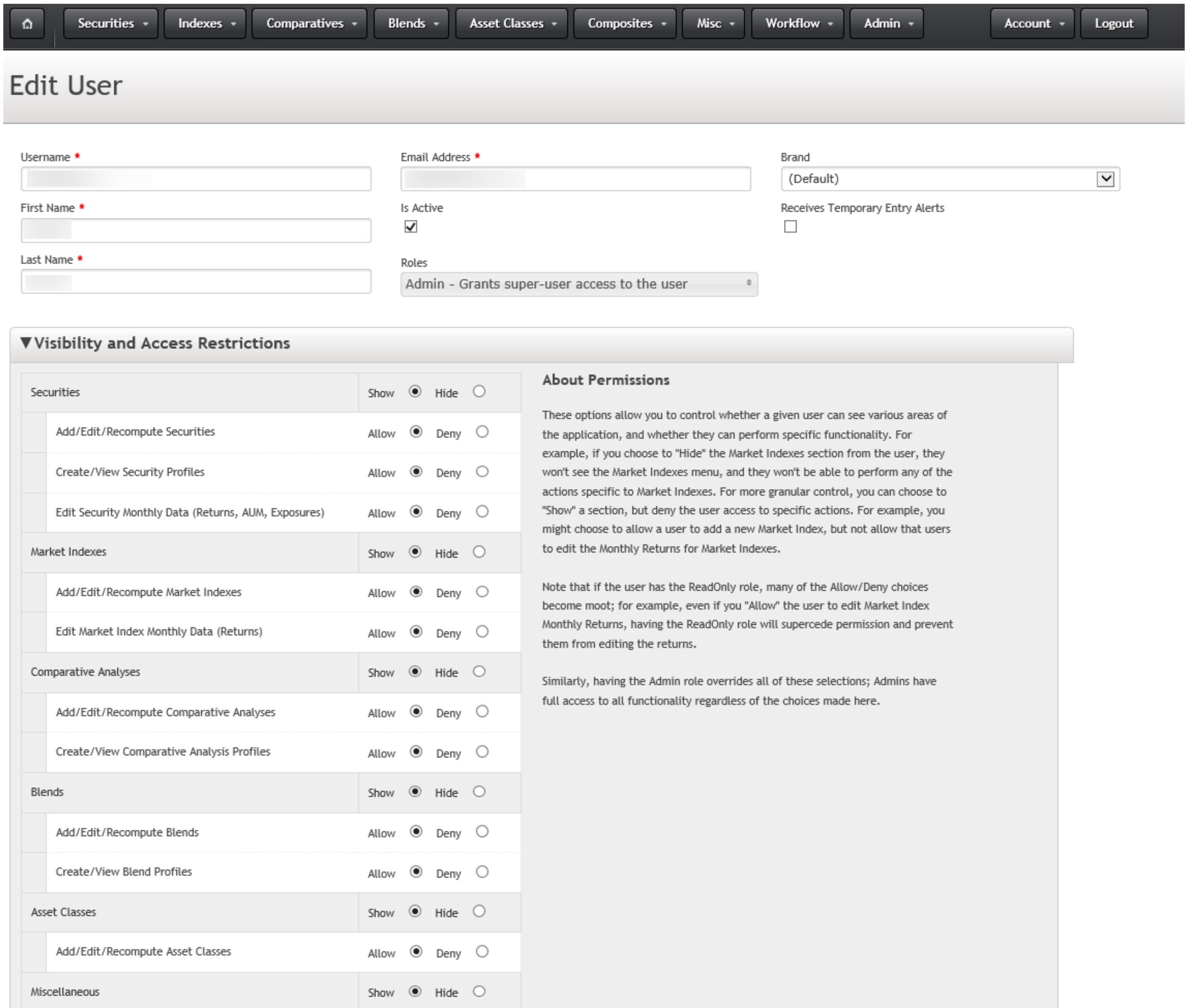
Security Editor

This is the screen on which quantitative and qualitative data is edited for fund managers / securities.



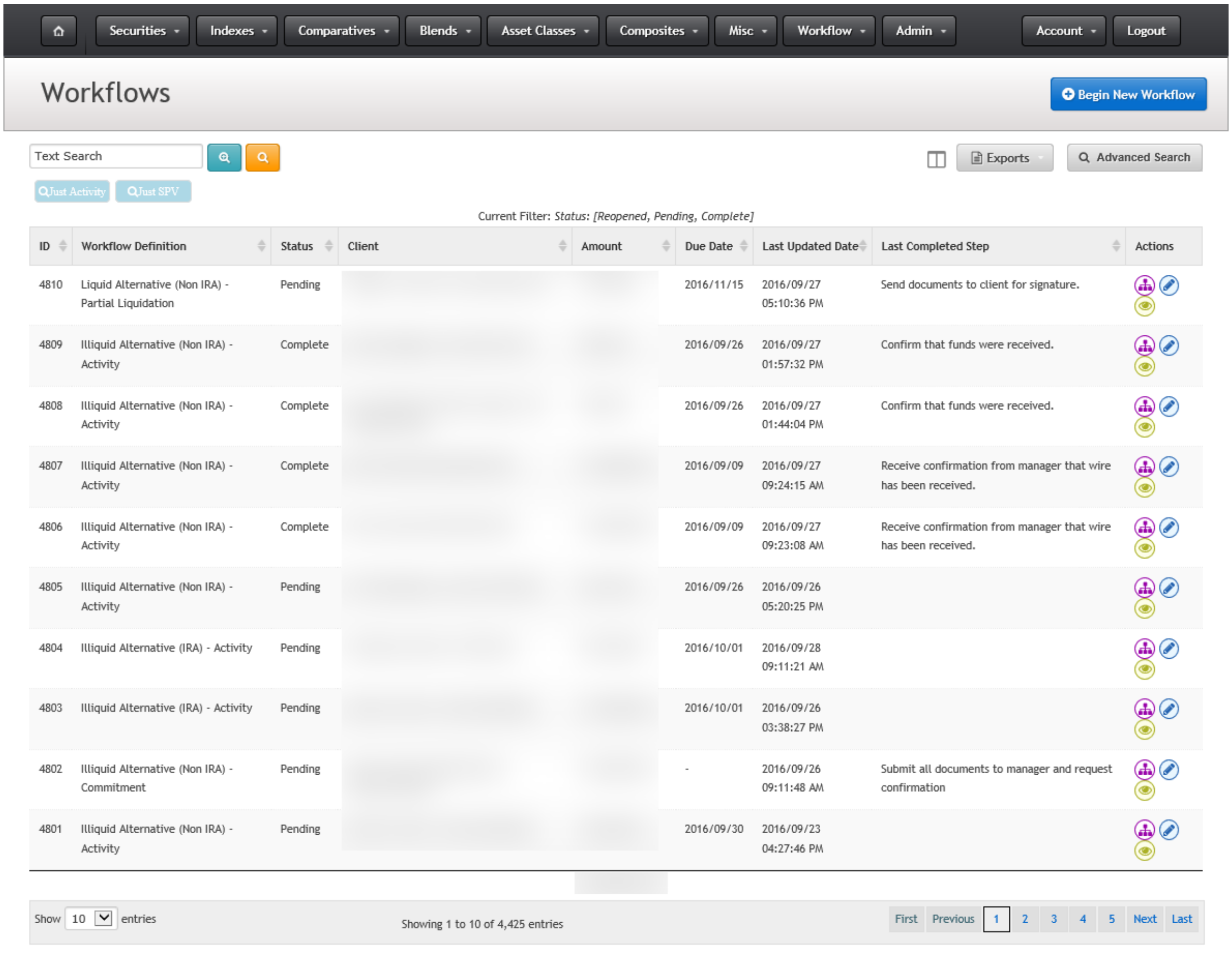
User Management

Each user of the system was associated with one or more roles, and a series of permissions and area visibility rules.



Workflow Dashboard

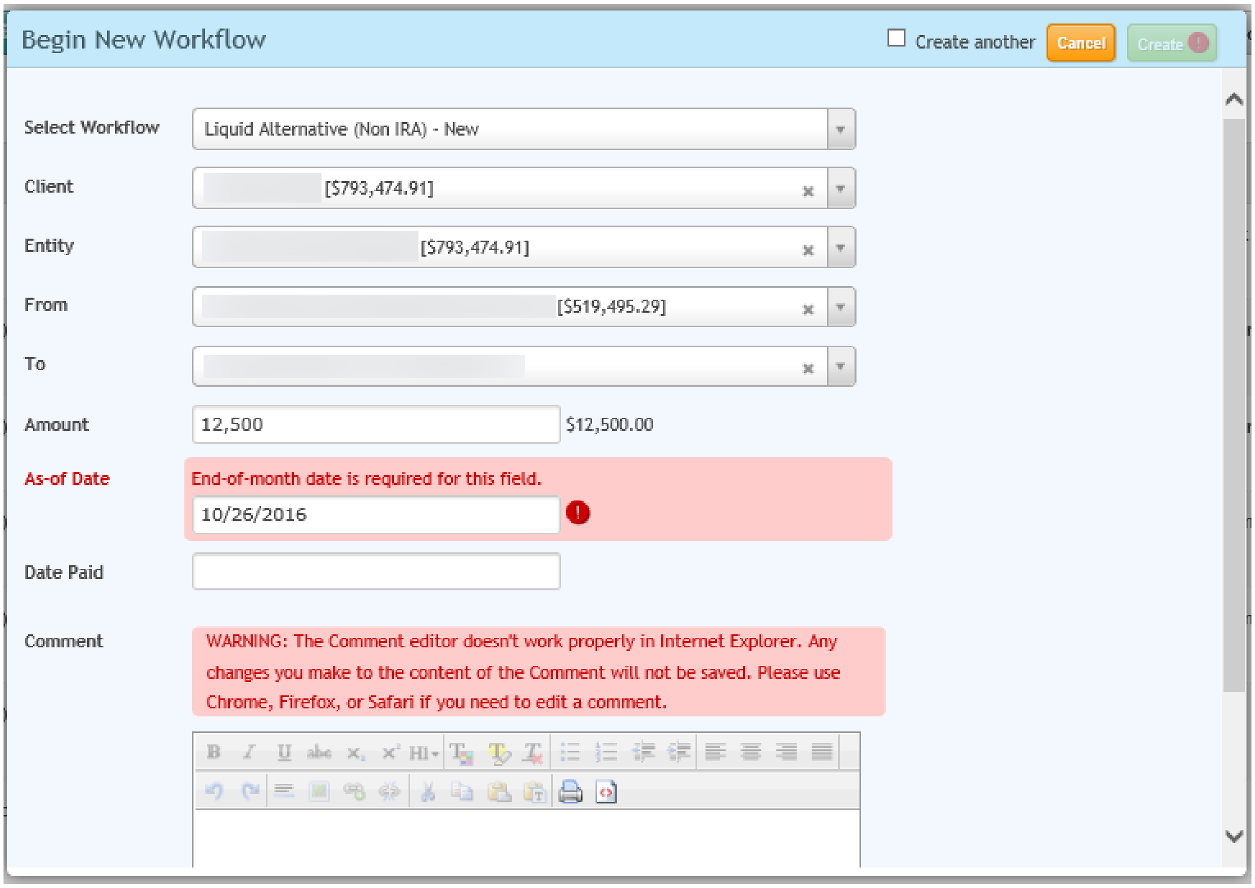
The Workflow Dashboard was a customizable search dashboard which each user could configure to show the information they felt was most relevant to their work. From here users would drill in to modify the basic details of a workflow instance, or manage the steps that the workflow took through the system.



ID	Workflow Definition	Status	Client	Amount	Due Date	Last Updated Date	Last Completed Step	Actions
4810	Liquid Alternative (Non IRA) - Partial Liquidation	Pending			2016/11/15	2016/09/27 05:10:36 PM	Send documents to client for signature.	
4809	Illiquid Alternative (Non IRA) - Activity	Complete			2016/09/26	2016/09/27 01:57:32 PM	Confirm that funds were received.	
4808	Illiquid Alternative (Non IRA) - Activity	Complete			2016/09/26	2016/09/27 01:44:04 PM	Confirm that funds were received.	
4807	Illiquid Alternative (Non IRA) - Activity	Complete			2016/09/09	2016/09/27 09:24:15 AM	Receive confirmation from manager that wire has been received.	
4806	Illiquid Alternative (Non IRA) - Activity	Complete			2016/09/09	2016/09/27 09:23:08 AM	Receive confirmation from manager that wire has been received.	
4805	Illiquid Alternative (Non IRA) - Activity	Pending			2016/09/26	2016/09/26 05:20:25 PM		
4804	Illiquid Alternative (IRA) - Activity	Pending			2016/10/01	2016/09/28 09:11:21 AM		
4803	Illiquid Alternative (IRA) - Activity	Pending			2016/10/01	2016/09/26 03:38:27 PM		
4802	Illiquid Alternative (Non IRA) - Commitment	Pending			-	2016/09/26 09:11:48 AM	Submit all documents to manager and request confirmation	
4801	Illiquid Alternative (Non IRA) - Activity	Pending			2016/09/30	2016/09/23 04:27:46 PM		

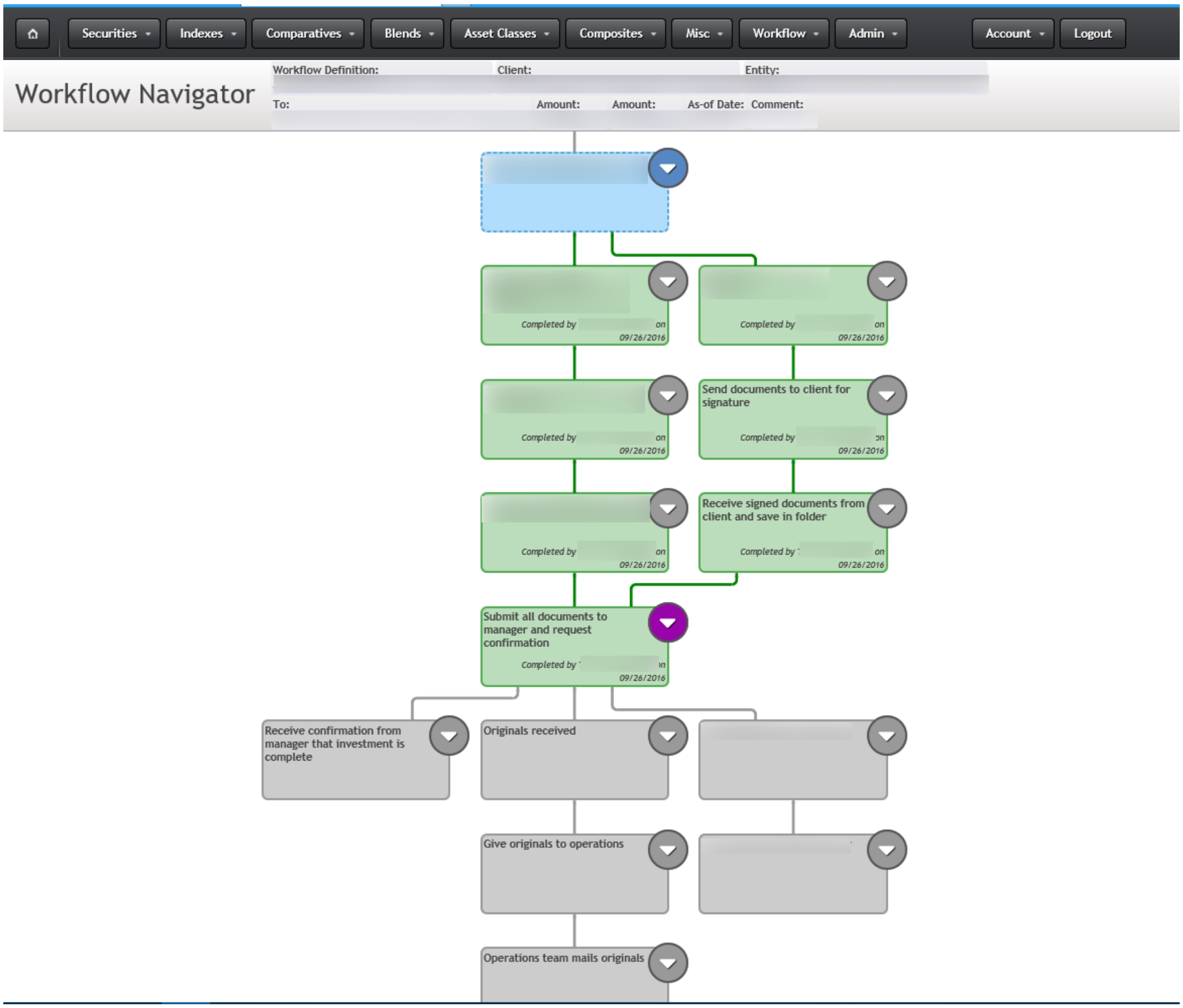
Workflow Fields Editor

Each workflow required distinct data entry. The workflow editor dynamically presented inputs for each relevant field depending on which workflow was chosen, along with potentially complex validation rules.



Workflow Navigator

The Navigator presented a visual graph of the steps in a given workflow. Within a single workflow a step (or path) could be dynamically hidden or shown based on the values entered on the Fields Editor. Each step in the workflow could be moved through various statuses to indicate its completeness, along with other details. Steps had to be completed in order. The visual layout was computed using Microsoft Automatic Graph Layout for dimensions and coordinates, but the UI was developed in pure HTML and javascript.



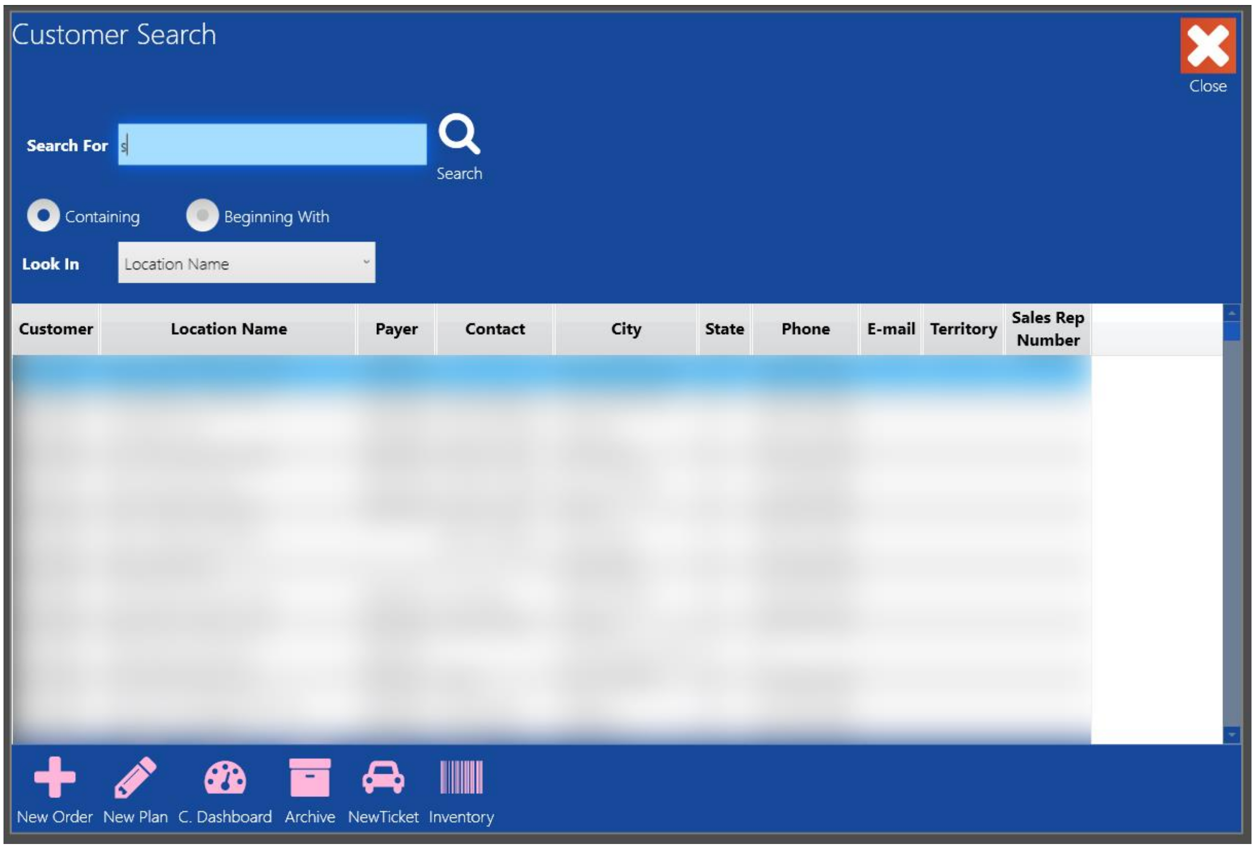
Onsite POS System for a sporting goods company

A national sporting goods company hired us to redesign and reimplement an aging WinForms application used by their sales team to generate orders at client locations. We built the new application in WPF using Prism for MVVM. The application is used by hundreds of sales and customer support reps across the country.

The primary functionality of the application was to allow users to enter customer orders and indicate customization of specific products. A Customer Dashboard also provided a holistic view of individual customers.

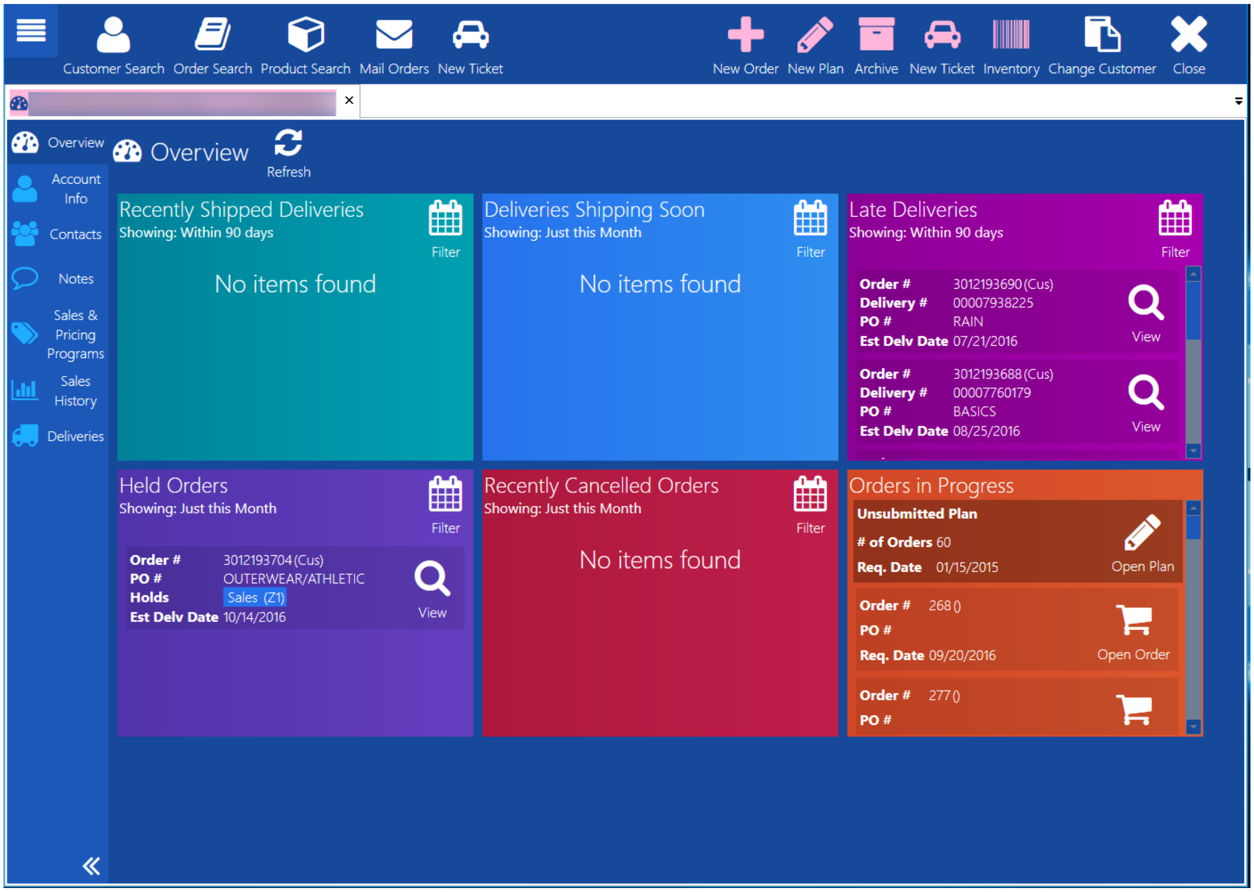
Customer Search

A basic search tool to find customers, serving as a launch point for creation of new orders, or navigation to other customer-related areas.



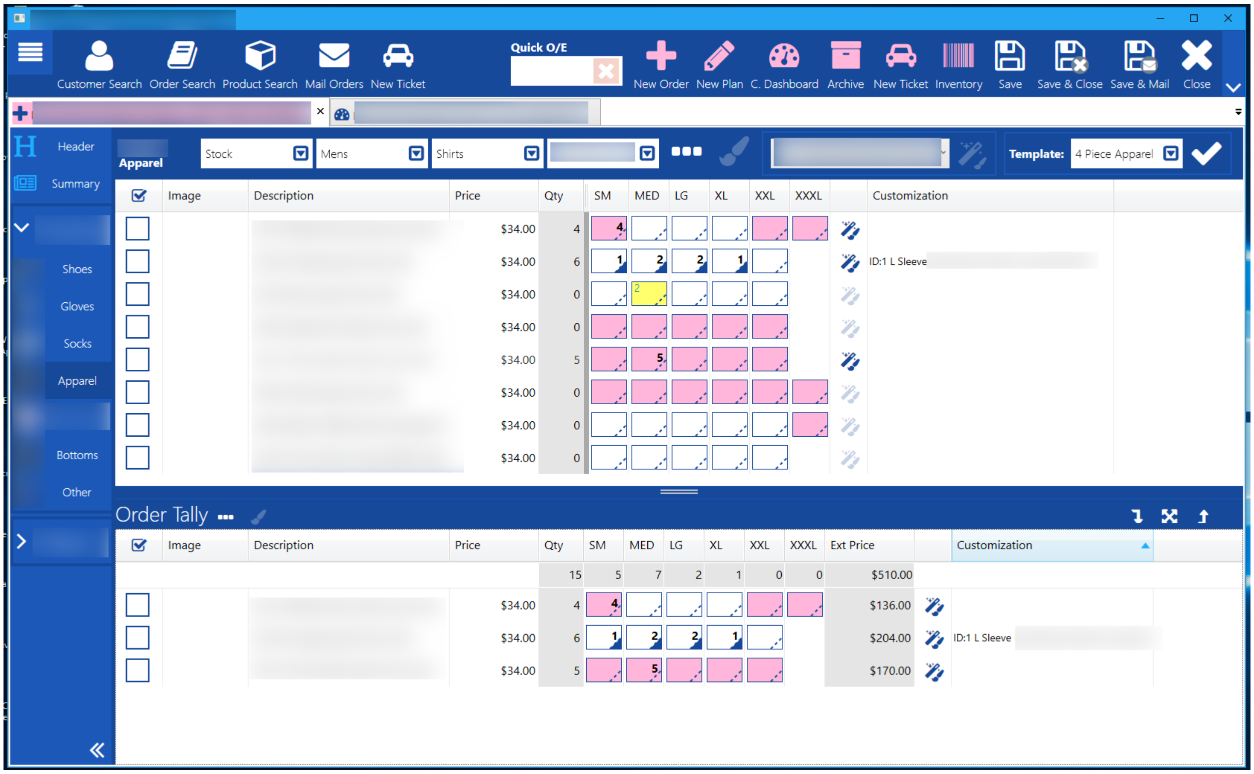
Customer Dashboard

The Customer Dashboard presented summary information, and more specific details, about each customer.



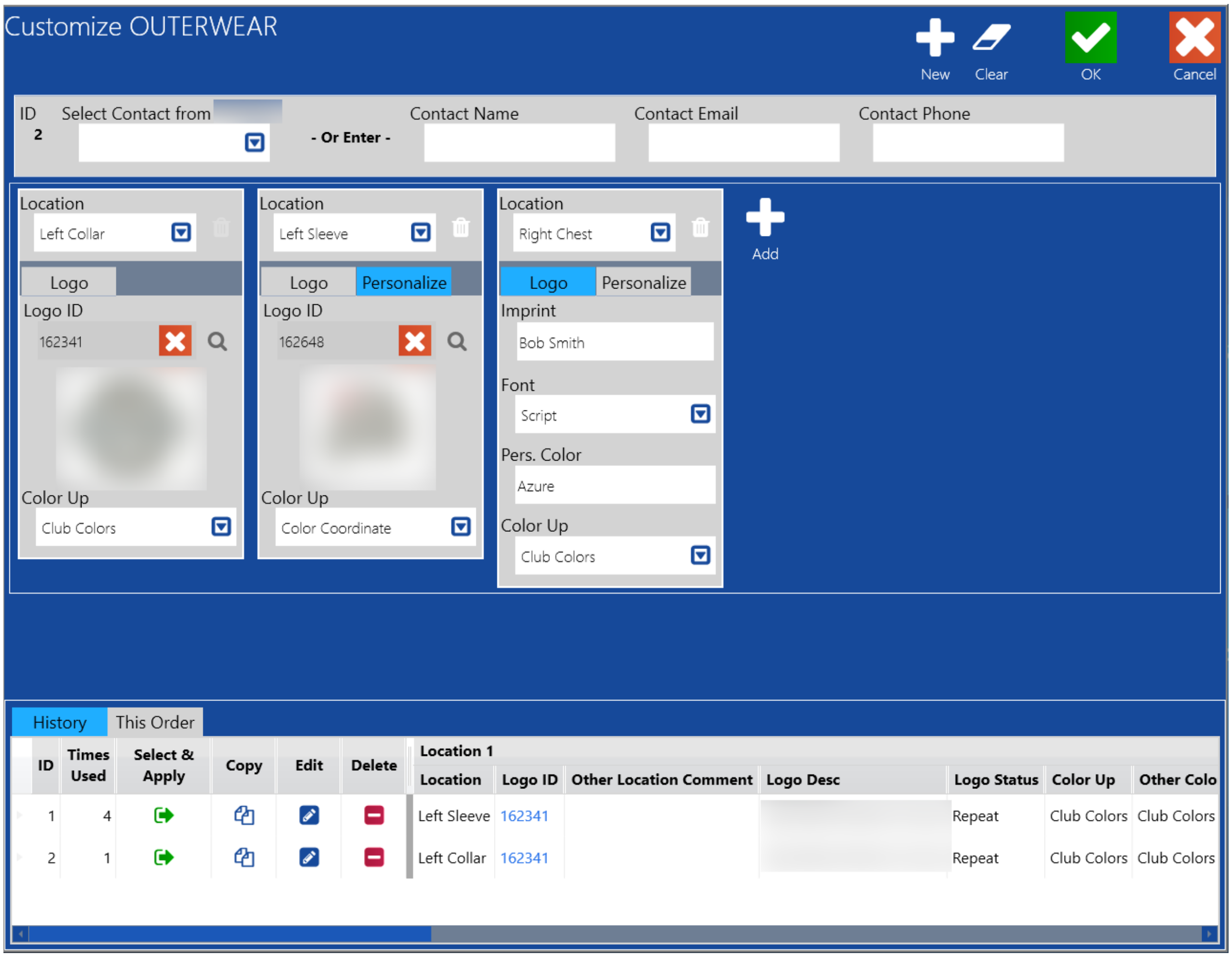
Order Entry

The order entry screen allowed users to search for the product, enter quantities, and customize products.



Customization UI

Most products in the application could be customized, including a logo or other personalization. In their original system there were seven distinct interfaces for customizing products. In the new application I generalized the implementation to a single configurable customization tool that worked for every product type.



Clinical Trial Analysis tool for a Pharma company

This relatively simple tool presents a pivot table representing the intersection of attributes among subjects in clinical trials. I developed the tool using KnockoutJS for data binding and Polymer for UI controls.

The tool supports faceted filtering of results, options to control the display of the results, and a pivot table showing the number of trial subjects matching the Row/Column pairs.