

POP*ART™

DEVELOPMENT WHITE PAPER

FINDING SOLUTIONS THAT ACHIEVE BUSINESS VALUE



Pop Art's technical team synthesizes first-class engineering talent and rigorous design and development methodologies, tools, and processes to build applications that solve real business problems. This document provides an overview of Pop Art's software development services.

The most important element to creating a successful application is a shared understanding of the business challenges that the application will solve. This understanding exists between the client and the solution provider.

Before we write a line of code, Pop Art uses a variety of techniques to understand your business and brainstorm ideas that will ultimately shape the application to provide bottom-line value. We interview stakeholders and users to gain insight and then create use cases and user stories that describe the way people will interact with the product. Paper prototyping allows us to create user scenarios and test design usability before the first coded prototype.

All the ideas and findings from the discovery and planning phases yield in the systems requirements document. This document guides the development and testing of the application throughout the software development process.

The Right Tools and Processes

At Pop Art, we adapt our processes to meet your needs, using software development and project management methodologies that fit your business style. An “agile” approach often works best for fast-changing, dynamic businesses or those that value flexibility and iteration. Pop Art works collaboratively to produce prototypes and gather user feedback, and then repeats this process until the solution meets requirements. Other clients prefer the traditional “waterfall” approach; software is developed in a more structured, predictive way, with documents delivered at key milestones.

A Process Case Study FMDC SelecTrucks Dealer Page

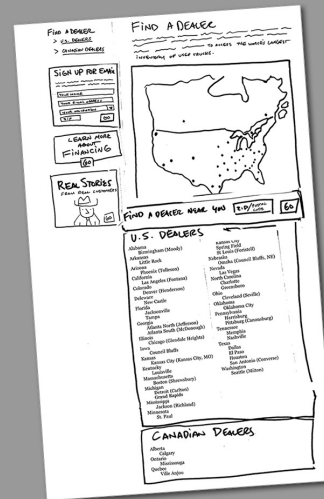


Fig 1 – Paper Prototype Sketch



Fig 2 – Wireframe

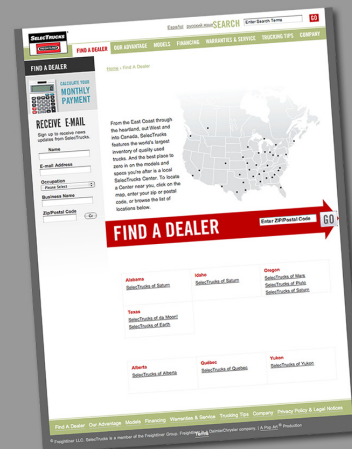


Fig 3 – Early Functioning Prototype

Regardless of the chosen methodology, the Pop Art team implements test-driven development, where unit tests are built side by side with the overall solution, allowing developers to focus on quality throughout the development and deployment processes.

Pop Art strives to fit the right solution to your organization and projects. There are many tools for developing applications and we therefore must be flexible and support an array of programming languages, databases, and operating systems.

- * As a Microsoft Certified Partner, we understand the latest development tools, languages, and product landscape offered by Microsoft.
- * We are also active in the open source community, continually working to improve open systems while learning from them.

With Pop Art, technology solutions aren't constrained to one operating system and platform. We have a passion for technology and software development and enjoy the diverse paths that we take to arrive at a successful solution.

Standards and Patterns

Standards and patterns are very important parts of application development at Pop Art. We feel that using open standards provides distinct advantages to clients. Technology industry

standards like Web Standards (XML, XHTML, CSS, etc.), for example, ensure that websites are accessible on an assortment of devices. The ability to browse a website from a mobile phone is no longer novel—it is a core requirement for most businesses. Pop Art also believes that using open technology standards allows clients the freedom to use different vendors and not be locked into proprietary technology.

Internally, Pop Art uses standards and patterns to bring quality and predictability to application development. Coding standards include common conventions and ways of organizing code so that developers can navigate it quickly. This reduces the time necessary to become acquainted with a new piece of software. Pop Art also uses design patterns, which are repeatable solutions to common challenges in software design. As software technology matures, it is important to attack challenges with well-known, documented solutions and pass the value on to our clients.

Combining client needs, technologies, standards, and patterns begins to form the application architecture. As with any physical structure, having a qualified architect lay out the design is critical to the success of the solution. Business systems and applications rarely operate in isolation, so solutions must be designed with integration in mind. Pop Art works with clients to architect the solution for the problem at hand and the needs of the business going forward. This includes designing n-tier architectures that enable clients to isolate business rules from the data and database management systems that allow for flexibility to accommodate future growth and functionality.

Pop Art also has extensive experience with service-oriented architecture (SOA), an architectural model that:

- * Defines loosely coupled software services that share business logic, data, and processes across a network
- * Allows applications from different sources to communicate through standards-based interfaces
- * Increases the level of integration between business systems

Pop Art's architects have diverse experience combining business-to-business intricacies with an enjoyable end user experience.

Pop Art: The Right Partner

When you want to bring value to your organization through technology, it's important to choose the right partner. The entire Pop Art team has experience tackling real-world business challenges and producing great results. We combine our two passions—solving interesting problems and technology—to help our clients find solutions that achieve business value.

Pop Art Technologies

Frameworks

- * .NET
- * IBM WebSphere
- * Microsoft Office SharePoint Server
- * BEA WebLogic

Languages

- * C#, VB.NET (ASP.NET)
- * Java
- * C/C++
- * Ruby, Perl, Python

Platforms

- * Windows
- * Linux
- * Sun

Databases

- * Microsoft SQL Server 2000/5
- * Oracle 9i/10g
- * MySQL 5.0

Web Standards

- * XML
- * XHTML
- * CSS
- * Section 508 Compliance
- * SOAP