David Lim

UX/UI Designer

About Me

Experienced, motivated, seasoned, professional UX/UI designer with a record of success in developing prototypes, managing a creative team and offshore resources, creating workflows, created user personas, defined use cases and test cases based on user requirements, creating functionality requirement documents, and business requirement documents.

My usability career history highlights that I am a self-initiator, driver, leader, motivator, and team player with an eye for details.

- 7 years in the Automotive Industry
- Knowledgeable with Agile methodologies
- Managed a creative team and offshore resources
- Knowledgeable of UX Best Practices

KPA

Examples of my work for KPA

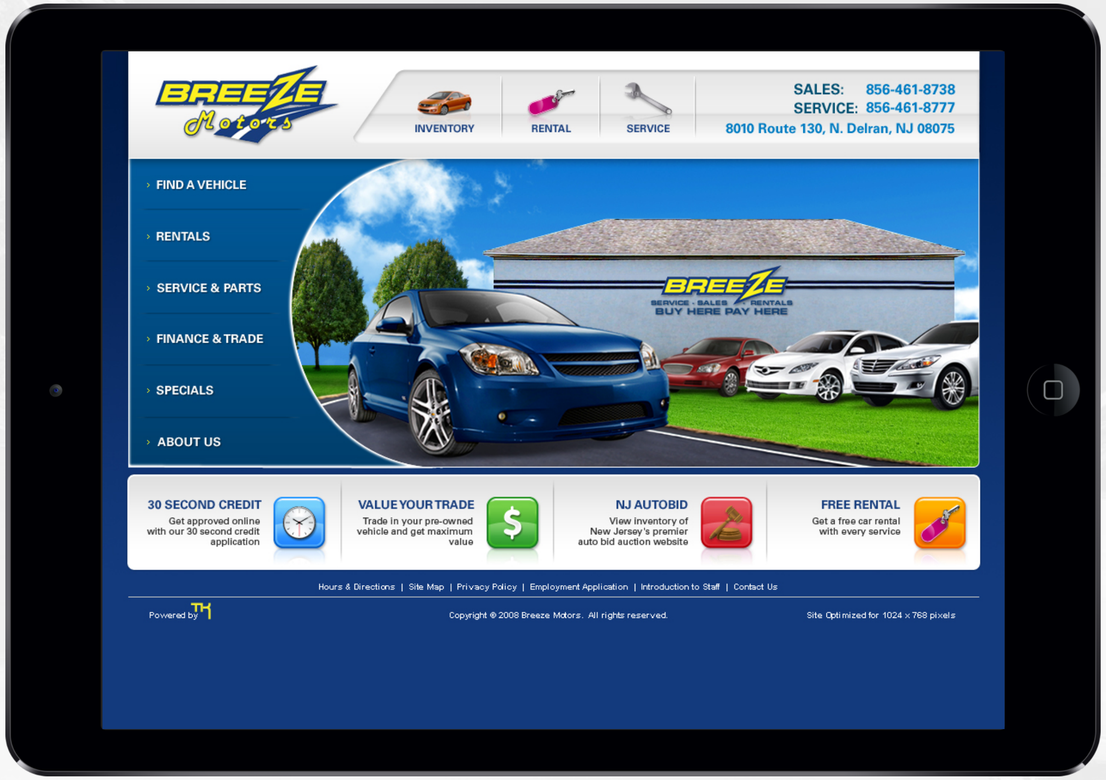
KPA Connect

KPA Connect is a Dealership-centric content management system (CMS) that was created due to the demand for clients wishing to have more control of their content and SEO.

Before KPA Connect, websites were created from scratch using Adobe Flash with a **120-day turnaround**. With KPA Connect, we were successful in creating a website with a **30-day turnaround**.

Clients no longer needed to contact Technical Support to add banners, buttons and change SEO. The Client now had the power to custom tailor their websites instantly.

Pre-KPA Connect Websites



Flash Websites

- ✓ Content Not SEO-friendly
- ✓ Changes Take Time to Make
- ✓ User Forced to View Animations
- ✓ Non-Responsive
- ✓ Non-Mobile ready
- ✓ Custom made

120-Day Turnaround

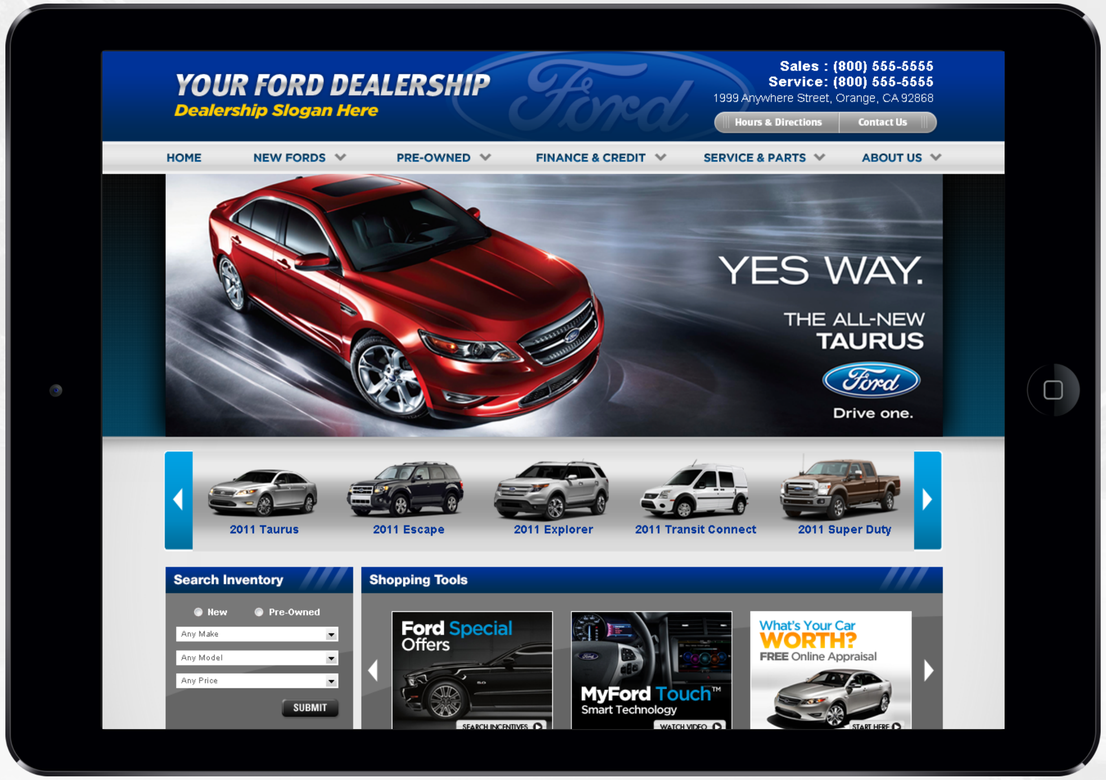
- ✓ Competition averaged 45 days
- ✓ Client change requests frequent
- ✓ Client frustration ensued over turnaround

Changes Difficult to Implement

- ✓ Dealer could not make changes
- ✓ Flash assets took time to make
- ✓ Assets could not be reused for other sites

KPA

KPA Connect Websites



CMS Websites

- ✓ Content SEO-friendly and searchable
- ✓ Changes Take Time to Make
- ✓ More Calls-to-Action
- ✓ Chrome vehicle image feed
- ✓ Utilized pre-made template designs

30-Day Turnaround

- ✓ Beat competition by 15 days on average
- ✓ Reduced client change requests
- ✓ Client frustration over turnaround reduced dramatically

Changes Easy to Implement

- ✓ Dealer can now make their own changes
- ✓ Dealer can utilize pre-made buttons and banners
- ✓ Dealer can also have customized assets for a nominal fee

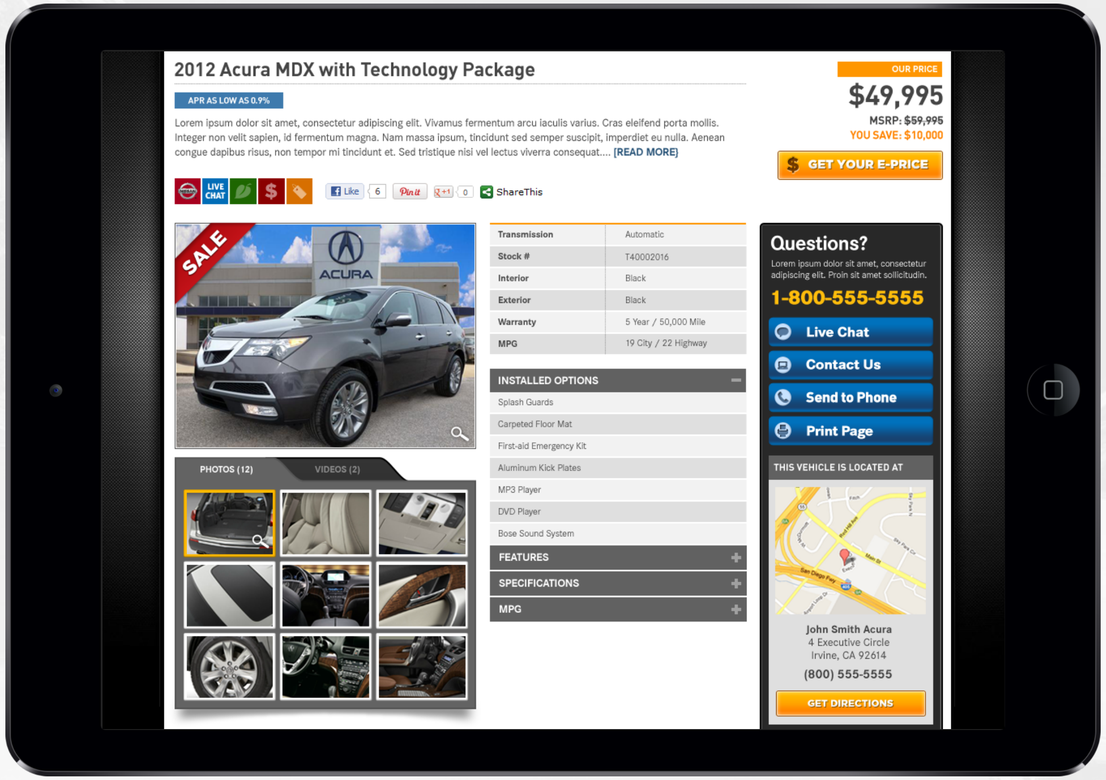
KPA

KPA Connect Websites

Mobile Ready

- ✓ Utilizing CSS3 media queries
- ✓ Hide desktop browser specific modules
- ✓ Utilizes Foundation CSS Framework
- ✓ Show mobile-only specific modules
- ✓ Responsive design
- ✓ Clients no longer need to subscribe to a separate mobile website service
- ✓ 20-30% decrease in mobile bounce rate with responsive platform

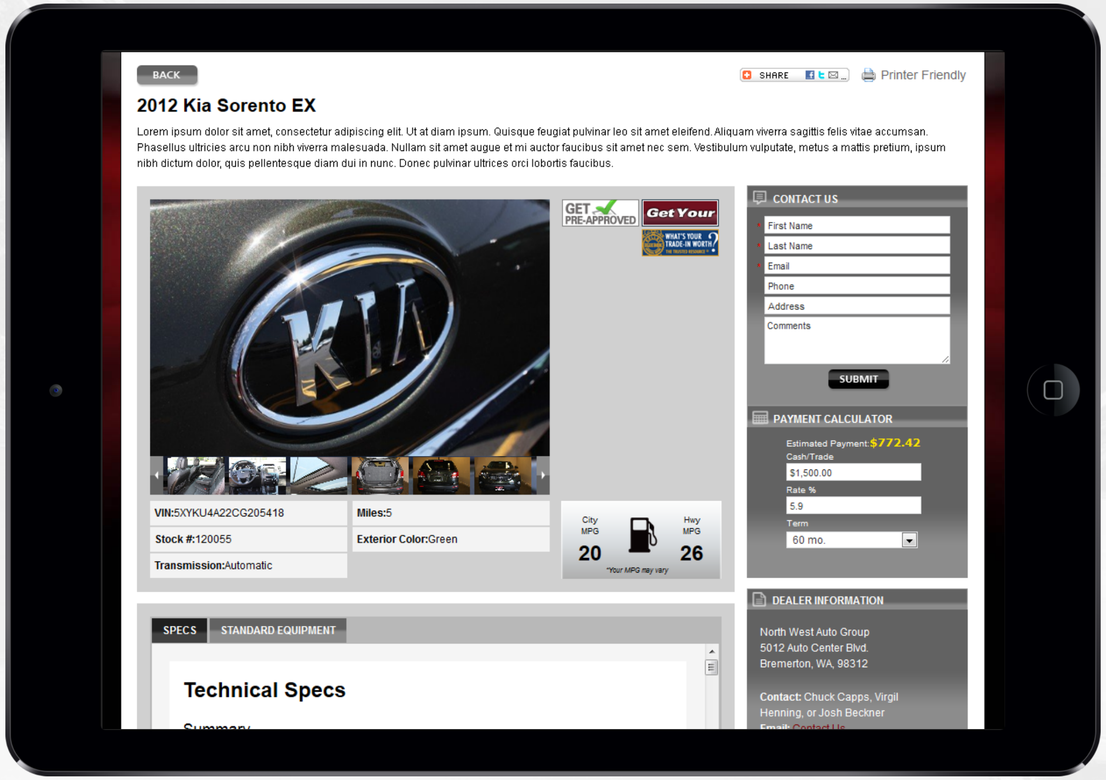
KPA



Power Index Inventory

PII is a redesign of the inventory tool for car dealers on the KPA Connect platform. The redesign is intended to provide a more interactive site for consumers to search for a car and create an incentive for them to contact the dealership and ultimately purchase the vehicle.

KPA



Previous Inventory

Lack of Calls-to-Action

- ✓ Missing Live Chat button
- ✓ Get-E-Price button should be more prominent
- ✓ Needs to have 30-second credit app button accessible

Inflexible Design

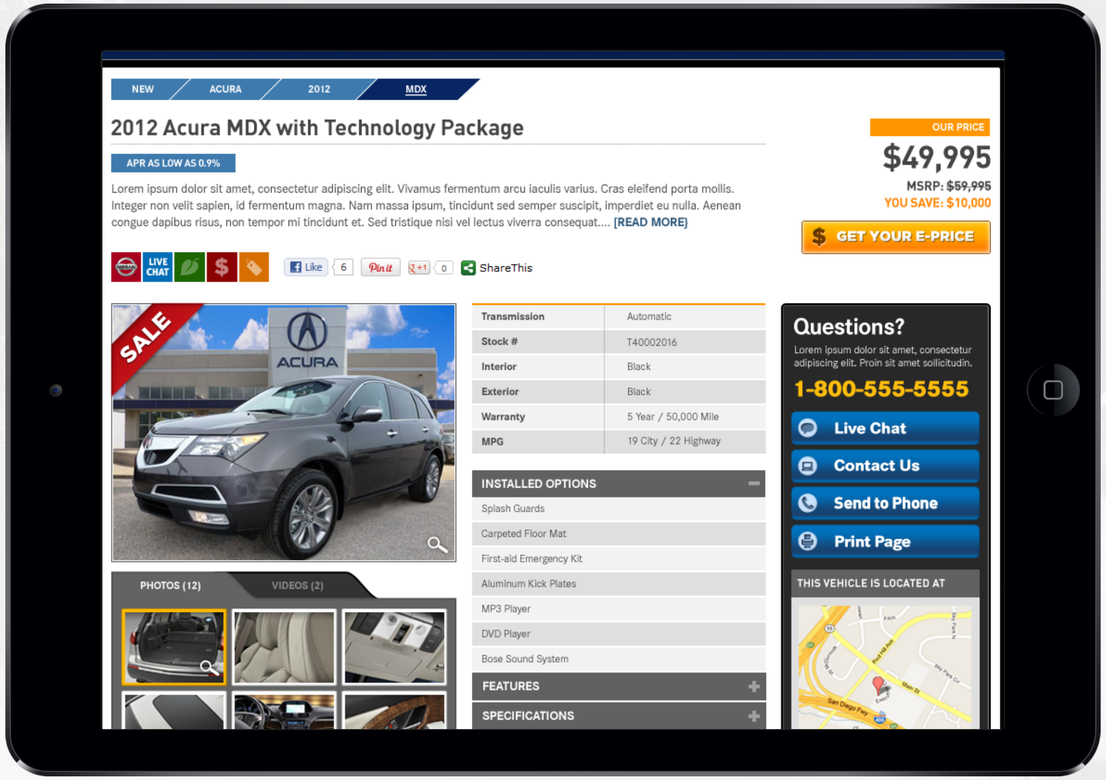
- ✓ UI is same for every dealer
- ✓ Cannot customize the UI for OEM compliance
- ✓ Cannot remove any unwanted modules

Lack of Media Options

- ✓ Dealer can only add few photos
- ✓ No video option

KPA

Power Index Inventory



More Calls-to-Action

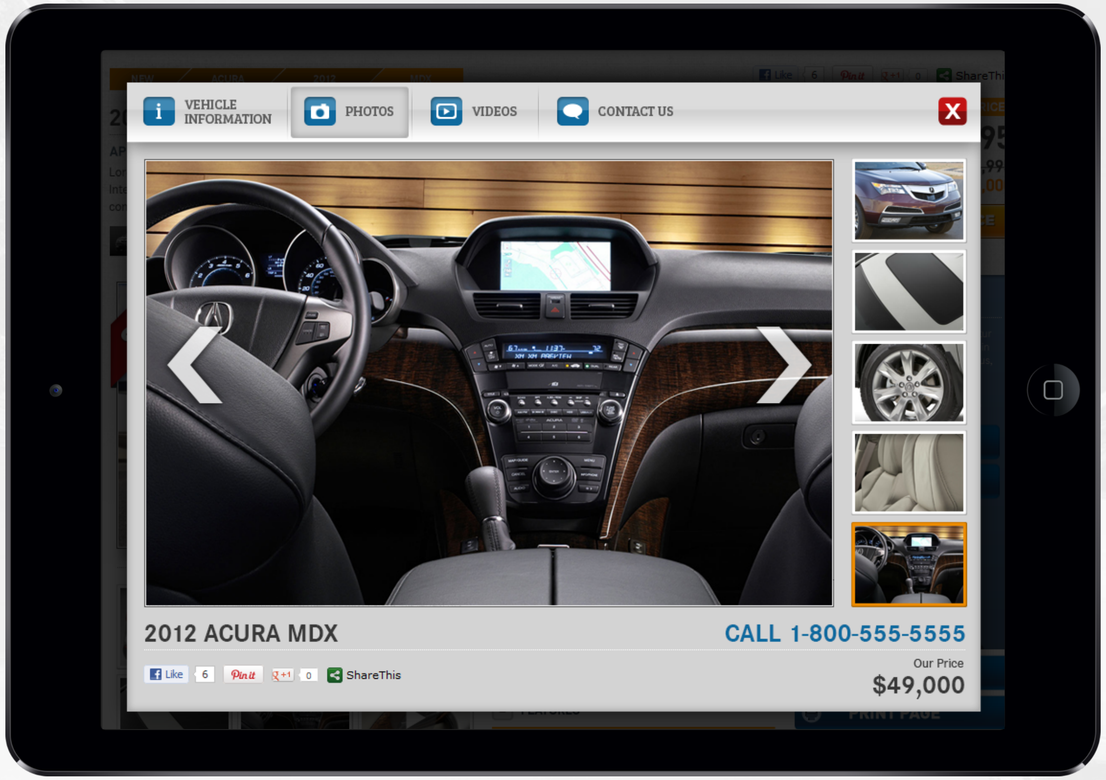
- ✓ Get E-Price button is more prominent
- ✓ Sale indicator on vehicle image
- ✓ More social media share links
- ✓ Send to Phone feature

Flexible Design

- ✓ Modular UI
- ✓ Customizable
- ✓ Utilizing XSLT templates
- ✓ Modules can be hidden if not needed

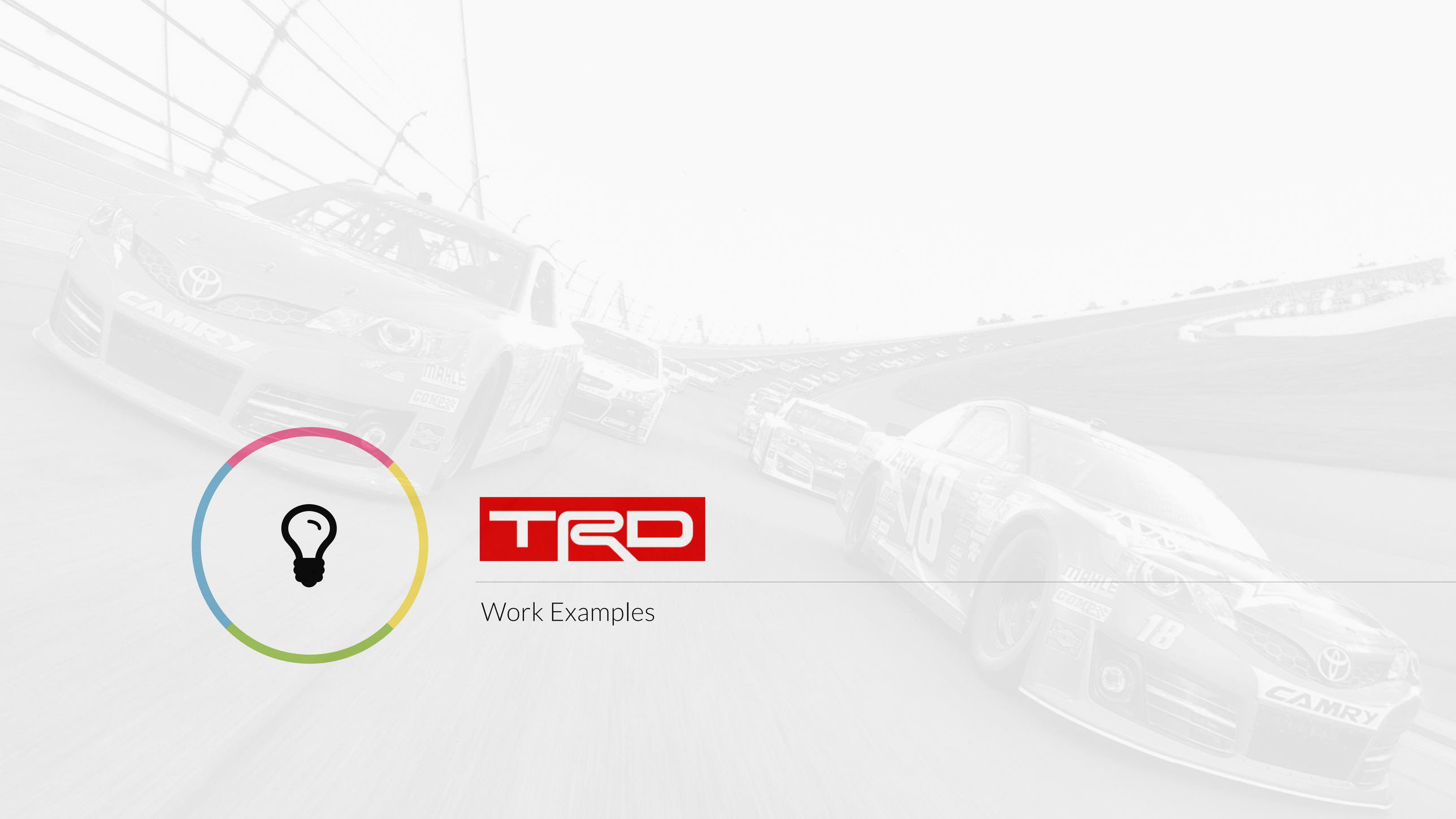
KPA

Power Index Inventory



Media

- ✓ Dealer can upload unlimited amount of photos
- ✓ Videos can be uploaded using Dealer TV module
- ✓ Carousel navigation for photos
- ✓ SEO friendly tags
- ✓ Higher user engagement and retention



TRD

Work Examples

Chassis Tuner 2.0

Chassis Tuner 2.0 is the legacy software created by TRD that is used by Joe Gibbs Racing for setting up virtual race cars and running simulations within the application.

Monolithic

- ✓ Application was built “on-the-fly”
- ✓ Simulation engine was integrated with application
- ✓ Difficult to distribute packages to users

Slow

- ✓ Simulations can only be run one at a time
- ✓ Simulations can cause application to crash or run poorly
- ✓ Data Grid contains over 200 columns, which makes navigation cumbersome due to loading of all columns and data

Cumbersome UI

- ✓ Difficult for running comparisons of car setups
- ✓ Confusing navigation between setups
- ✓ Lack of persistent view of UI

Challenges

Redesigning an existing application that is widely used by TRD and JGR within a high-pressure environment had many challenges

Politics

- ✓ Teams had many users who each had different ideas of how the app could be improved
- ✓ Race car teams did not share info within their own organization and also to the Development Team

Accessibility

- ✓ All teams were based in Charlotte, NC
- ✓ Very difficult to gain access to users during races
- ✓ Users were not always receptive to change (status quo)

Poorly Developed and Documented

- ✓ Legacy software was poorly developed and documented
- ✓ Code was missing
- ✓ Reverse engineered certain portions of app

Analysis

In order to create a compelling UI for Chassis Tuner v.3.0, I had to understand who the users were and how they used the existing application. Observation of existing users in their work environment was conducted to get a first-hand perspective on their objectives and specific tasks.

Analysis Tasks

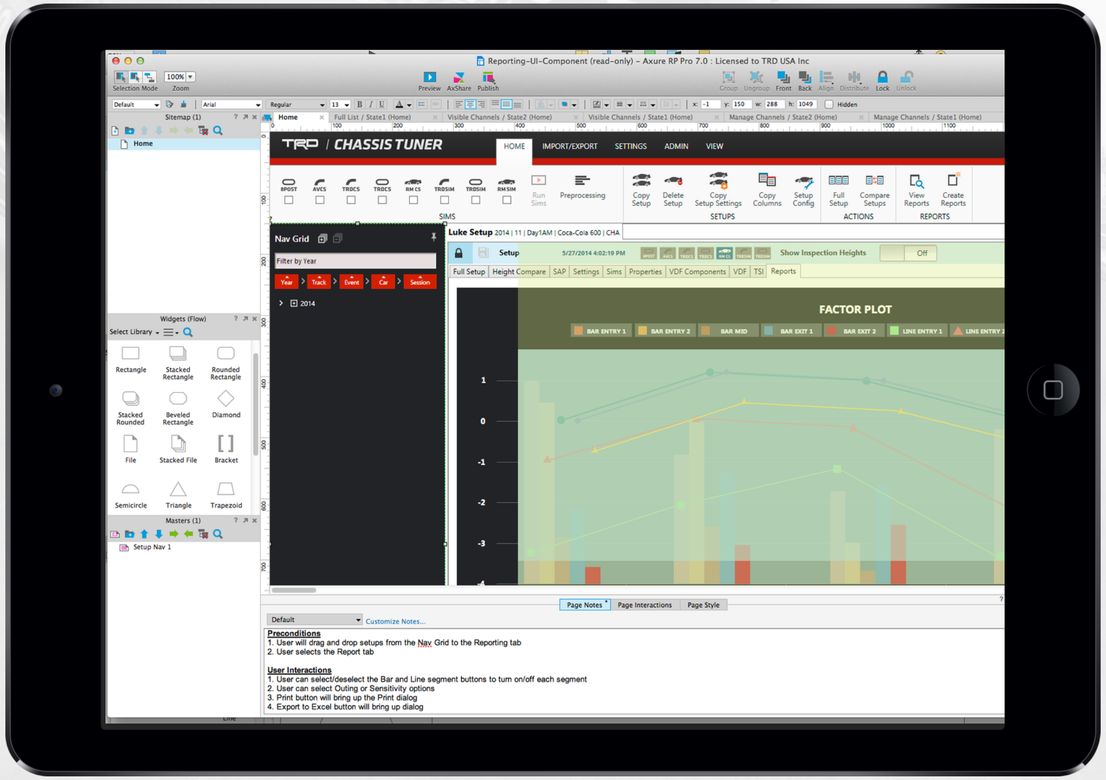
✓ User Interviews
✓ On-site Observations
✓ User Profiles
✓ Task Analysis
✓ User Scenarios

Usability Evaluation

From informal feedback sessions with existing users and stakeholders, to facilitated testing sessions, these evaluations helped identify sources of confusion, and judge how users respond to layout and navigation.

Evaluation Findings

- ✓ Each user may have a specific task and does not utilize more than 30% of the Application
- ✓ Tire engineers specifically look at tire data and only affect the tire section of the Application
- ✓ Springs users only create and upload springs and adjust linear rates
- ✓ Users were confused by CT v.2 reporting feature and how to export the findings to Excel
- ✓ Users were confused by the sheer amount of business logic that is implied
- ✓ Application did not allow users an easy exit or even a system status (simulations)
- ✓ To do setup comparisons, users needed to export the data to Excel and run comparisons manually



Prototyping

These prototypes are developed before the final design, and can be used for user feedback, usability testing and stakeholder buy-in. Prototypes can range from low-fidelity, click-through mockups to high-fidelity, fully-interactive applications.

During the prototyping process, heuristic evaluations occurred by a third-party to ensure that we maintained consistency and standards, minimal design and other heuristics.

Prototyping Tools

✓ Axure Pro 7.0
✓ Adobe Photoshop CC
✓ Adobe Illustrator CC
✓ Microsoft Powerpoint
✓ Microsoft Visual Studio

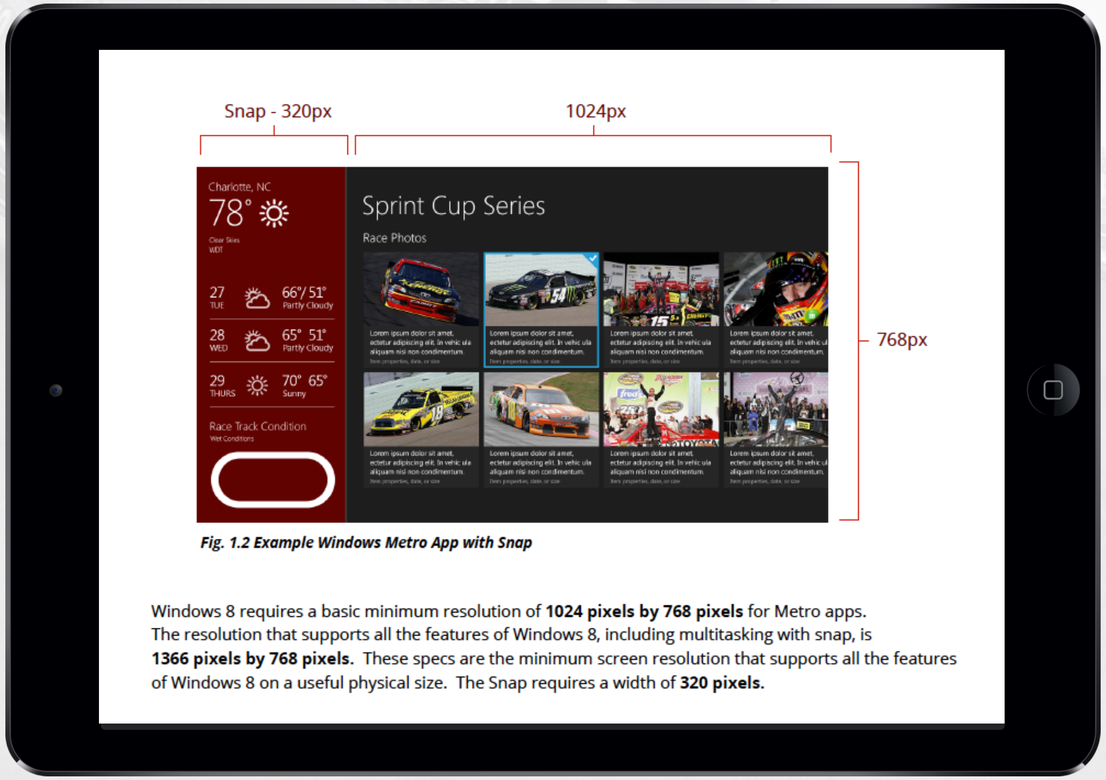


Fig. 1.2 Example Windows Metro App with Snap

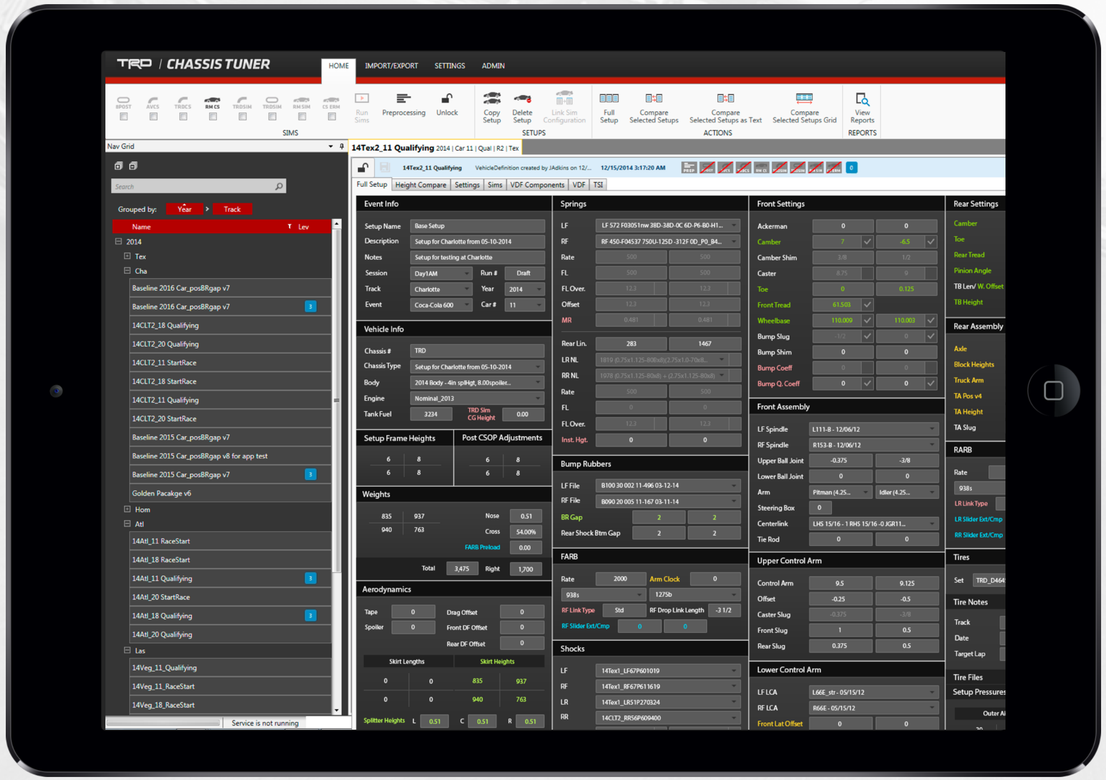
Windows 8 requires a basic minimum resolution of **1024 pixels by 768 pixels** for Metro apps. The resolution that supports all the features of Windows 8, including multitasking with snap, is **1366 pixels by 768 pixels.** These specs are the minimum screen resolution that supports all the features of Windows 8 on a useful physical size. The Snap requires a width of **320 pixels.**

Visual Design

During the visual design phase, I applied artwork and graphics to the interaction design.

A Visual Style Guide was created to assist developers to take into account the capabilities and constraints of the target platform and user display constraints.

- ✓ Visual Theme Exploration
- ✓ Screen Renderings
- ✓ Graphical Interface Elements
- ✓ Icon Designs
- ✓ Style Guides
- ✓ HTML/CSS/XAML Templates



Chassis Tuner 3.0

Improvements were made based on all analysis, design, testing and feedback.

Cloud Based

- ✓ Application rewritten for MS Azure services
- ✓ Users no longer have to share USB drives to share data (setup packages)

Speed Improvements

- ✓ Multiple simulations can be run at once and out of process
- ✓ Application no longer crashes when running simulations
- ✓ Users benefit from a 400% increase in productivity

Increased Usability

- ✓ Easier to run comparisons and duplicate setups
- ✓ New Nav Grid pane to allow for click-and-drag functionality
- ✓ Reporting UI enhancement and export data to Excel
- ✓ Parts server allows for sharing of parts across users

Questions

THANK YOU

Email: david@davidsunglim.com
Cell: (714) 357-3283