



# Strategies for Building Large JavaScript Apps for the Enterprise

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# Topics

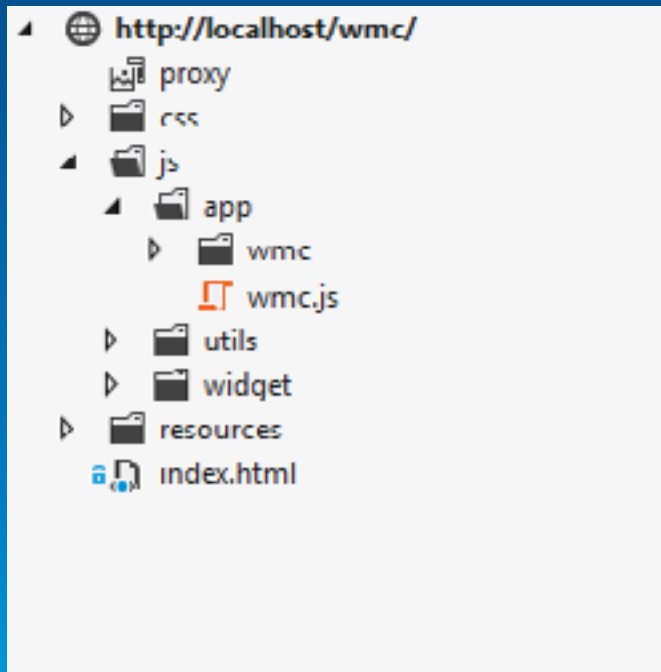
- **Project Layout**
- **Utilizing Dojo Build for production deployments**
- **Leverage the server**
- **Version Control**
- **Continuous Integration**
- **Case Study**

# Project Layout

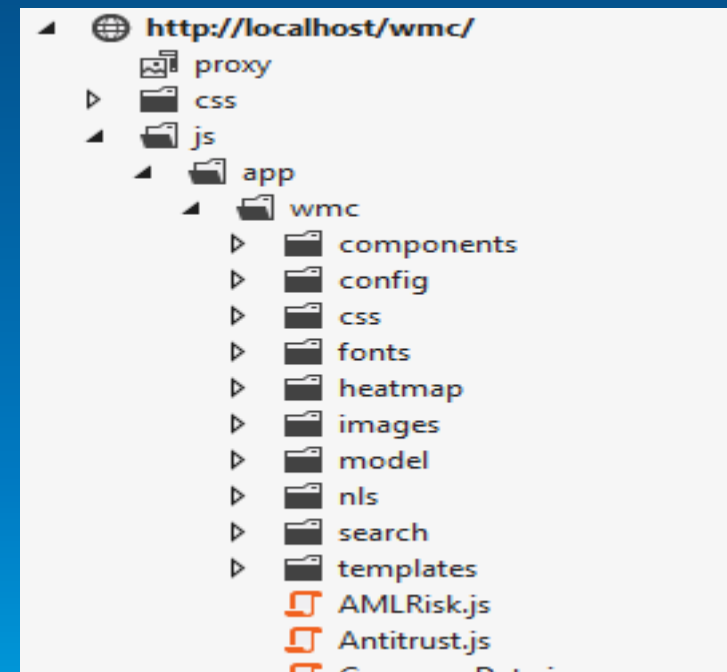
- **Spaghetti code is bad**
- **Organize code using OOD**
- **Separate build files from project source**
- **Separate reusable components from custom app source**

# Potential Code Structure

Reusable: utils & widget



Project specific code in app



# Optimize

- **Coming soon... [jso.arcgis.com](http://jso.arcgis.com) (JavaScript Optimizer)**
- **Dojo Build**
  - Minimize resource count and size
- **Leveraging HTML5/JS capabilities for better performance**
- **Suggested Session: Optimizing your JavaScript App for Performance (Derek & Jeremy)**

# Dojo Build Demo

- **Example From the Community**
  - **Special thanks to Scott Davis (Geospatial Scott)**
    - **@ScottAGRC**

# Server Side Help

## Don't let the browser keep you down

- Utilize server technologies (Java, .Net, php, etc) for things you can't do in the browser
- Leverage or create services to do the heavy lifting.
- ArcGIS
  - GP Services, Server Object Extensions

# Version Control

**Allows developers to work together more easily and keeps history**

- **On premise and hosted/cloud solutions available**
- **Git, Subversion, TFS, etc.**
- **Remember to back-up the repository**
  
- **Bug Tracking / Testing integration**



# Continuous Integration

- **Lots of options, but Jenkins/Hudson, Bamboo, are popular options now**
- **Build on commit or frequently**
- **Use code quality tools**
  - **JSLint or JSHint for JavaScript**
  - **FindBugs for Java**

# Case Study

- **Large retail organization**
- **Leveraging the platform to geo-enable the enterprise**
  - **High Availability System**
    - Portal(s), ArcGIS Server Clusters, Data farms
  - **Out of the box clients**
- **Custom JavaScript app for a targeted user experience**

## Looks Matter

- Slick fun mobile apps raised the bar
- All apps have functional requirements , but a good UI/UX really improves satisfaction
- Our team had 2 UI/UX experts
  - Built dojo widgets as the dev team, plugged in the logic

# Security

- **...Security Matters**
  - Target, Evernote, LivingSocial
- **You'll be leveraging an existing system, work with the security team**
- **We took advantage of existing systems**
  - Web App validated via Portal's REST API

# Think ahead

- **Localization**
  - **Scrubbing a large app for hard coded values, is not fun**
- **Generalize components to be shared across projects**

## Thin Client

- **Simplify the complexity of your web app by leveraging services to do the heavy lifting**
  - REST



Understanding our world.