UI Architecture for 360 Version: 3.2

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Karma **Testing Protractor** Jasmine SASS Javascript / CSS Wijmo *iQuery* **UI-Utilities** D3 Underscore Bootstrap UI for Angular Frameworks Angular JS Yeoman (Grunt, Bower, Yo) Development / Build Environment Express.js

Node JS

Any application of this complexity should integrate testing into the development process to insure the stability of the product. Using a two pronged approach, one for unit and end-to-end testing, another for scenario testing. Jasmine and Selenium are industry standards in these respective areas.

There will be a need for a number of third party libraries, most notably in the charting and graphing category. We should be using a css-processor for optimal style sheets. jquery is a default include as it would be needed for any application.

Bootstrap, like angular, is a widely adopted framework which is backed by internet giant Twitter. We get out-of-the-box default styling which is easily theme-able, and a host of common components.

The MVC pattern for app structure is not only what the current products are using, but and industry standard as well. Angular has a wide user base, is backed by Google and has proven itself for large applications. Angular will supply out-of-the-box functionality and also have the flexibility to customize to suit our specific needs.

Modern, large-scale applications require a complex development environment which itself is complex and requires management. Using Yeoman gives us out-of-the-box scaffolding, dependency management, and a task runner. Yeoman also has a wide user base, plenty of existing modules and gists and is configurable down to the granularity we require.

Node JS will give the ability to quickly make mock endpoints to test all XHR operations.