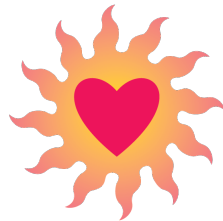


DESIGN BRIEF

for



Prepared By ART&SOL



February 2014

Design Brief for CODEread

Project Description:

CODEread is a new product launch in the network security management software business. CODEread is web-based and follows a Software As Service (SAS) business model, with revenue derived from subscriptions.

Similar products:

HP Fortify

Symbiotic products:

PuppetLabs

Objective:

The objective of the development effort is to design the User Interface (UI) for a thin client to access the code scanning, code replacement, and reporting functions of CODEread that are hosted in the cloud. Development is focused on the design of a series of 'wizards' that discover potential security threats, develop security policies, intercept and replace code vulnerabilities, and provide reporting functions. Other functions, such as payment processing, will be outsourced to third party vendors.

Clientele:

Corporate data centers are the primary customers for CODEread, along with government agencies, and hosting services.

End User:

The end user for CODEread typically has a title of network security specialist. He is likely to have a BS in Information Systems or equivalent training, often with additional certifications (i.e. .NET). The end user is likely to have a background in the armed services or law enforcement, and may have obtained security clearances. Pay scale has a range from a low of \$40K to a high of \$100K. Employment in his field is stable and long term with good benefits.

These traits indicate an individual that respects authority and is content to work up through the ranks incrementally. He is used to performance reviews, and is likely to be motivated by badges, leaderboards, and titles that acknowledge his efforts. He is likely to be a fan of videogames and a professional sports fan.

References:

<http://computer-careers-review.toptenreviews.com/network-security-specialist-review.html>

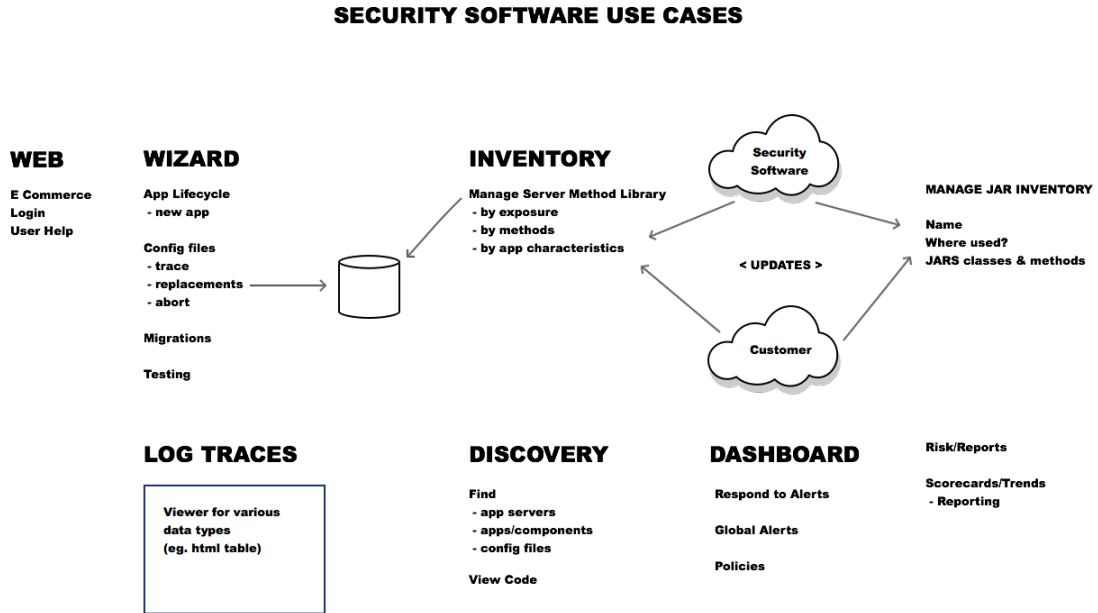
<http://searchsecurity.techtarget.com/Why-and-how-the-CISO-job-description-is-changing>

<http://www.ciscopress.com/articles/article.asp?p=680834>

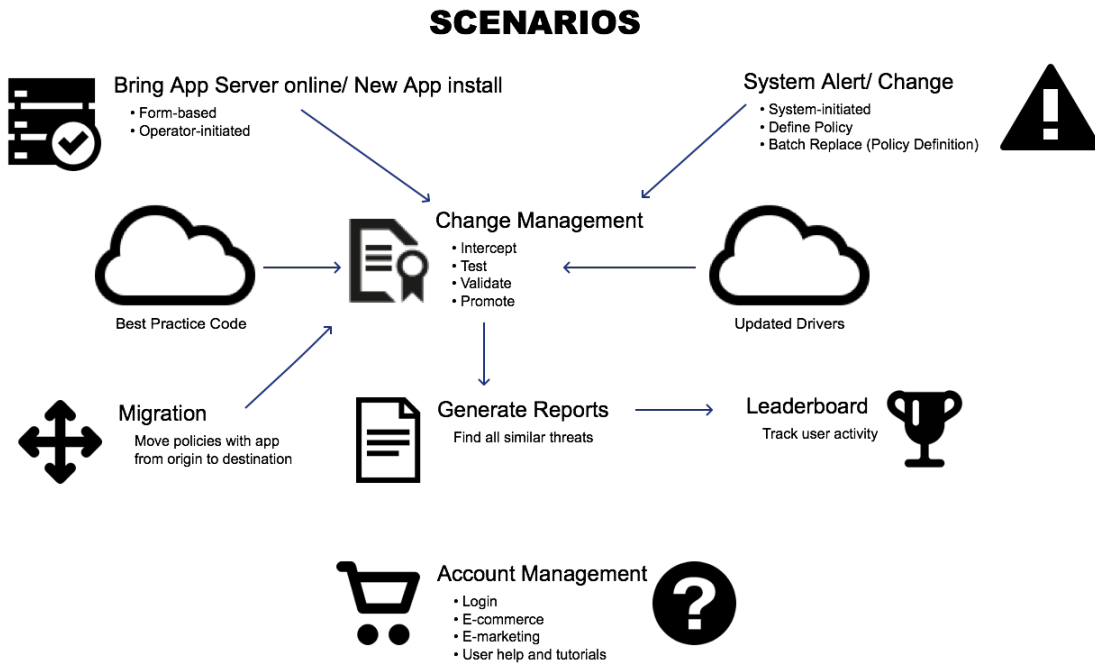
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Design Approach:

1. To assess the functionality envisioned for the product, a flow line was developed:



2. Subsequently a more refined set of use cases was developed:



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3. The next task was to identify a name for the product so a logo could be designed. Keying in on the end user's probable military background and the product's core function – intercepting insecure code – a couple of names were selected:

INTERCEPT ZONE (referring to the area where a hostile can be intercepted)

VECTOR (referring to an attack vector – the path taken to a target)

Exploring the sports metaphor, another title for the product was chosen:

TACKLE

Lastly, a title was selected because it alluded to a core function of the software – code scanning – while invoking a sense of urgency (the universal Code Red alert):

CODEread

4. Logo treatments were then developed for the product:

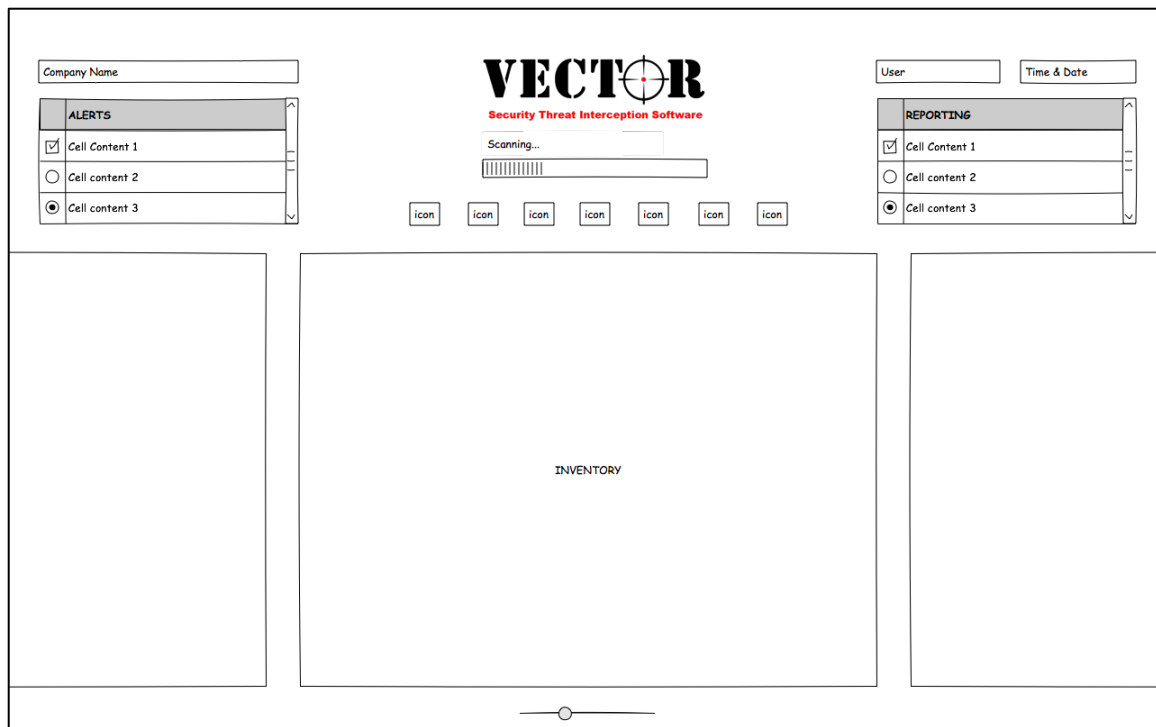


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5. The next task was to identify a metaphor for the design of the user interface. The complexity of the mission of the CODeread software meant that the end user needed to be simultaneously aware of many data points, such as system alerts and network architectures, much like a fighter pilot in a dogfight. A Heads Up Display (HUD) metaphor was chosen as a model, similar to the design of many videogames.



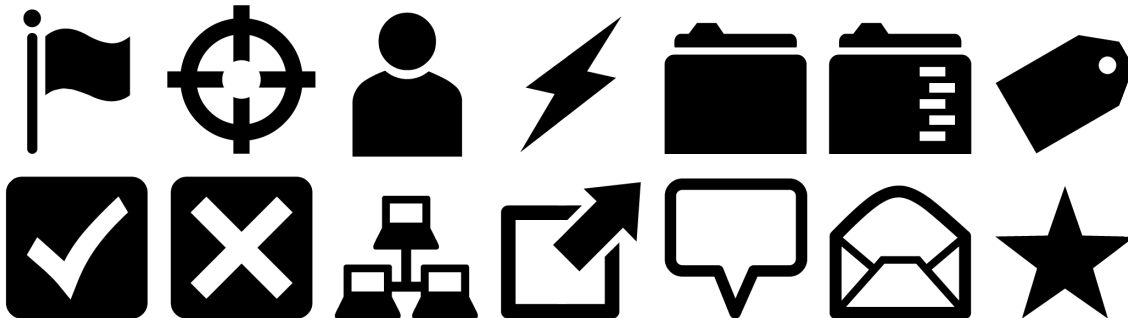
A wireframe was developed to block out the layout of various interface elements.



The wireframe anticipates the use of 'infinite scrolling' panels along the bottom two thirds of the screen, which contain the 'wizards' for identifying security vulnerabilities, creating security policies, etc. Persistent views of system alerts and other vital information are in the top third of the layout.

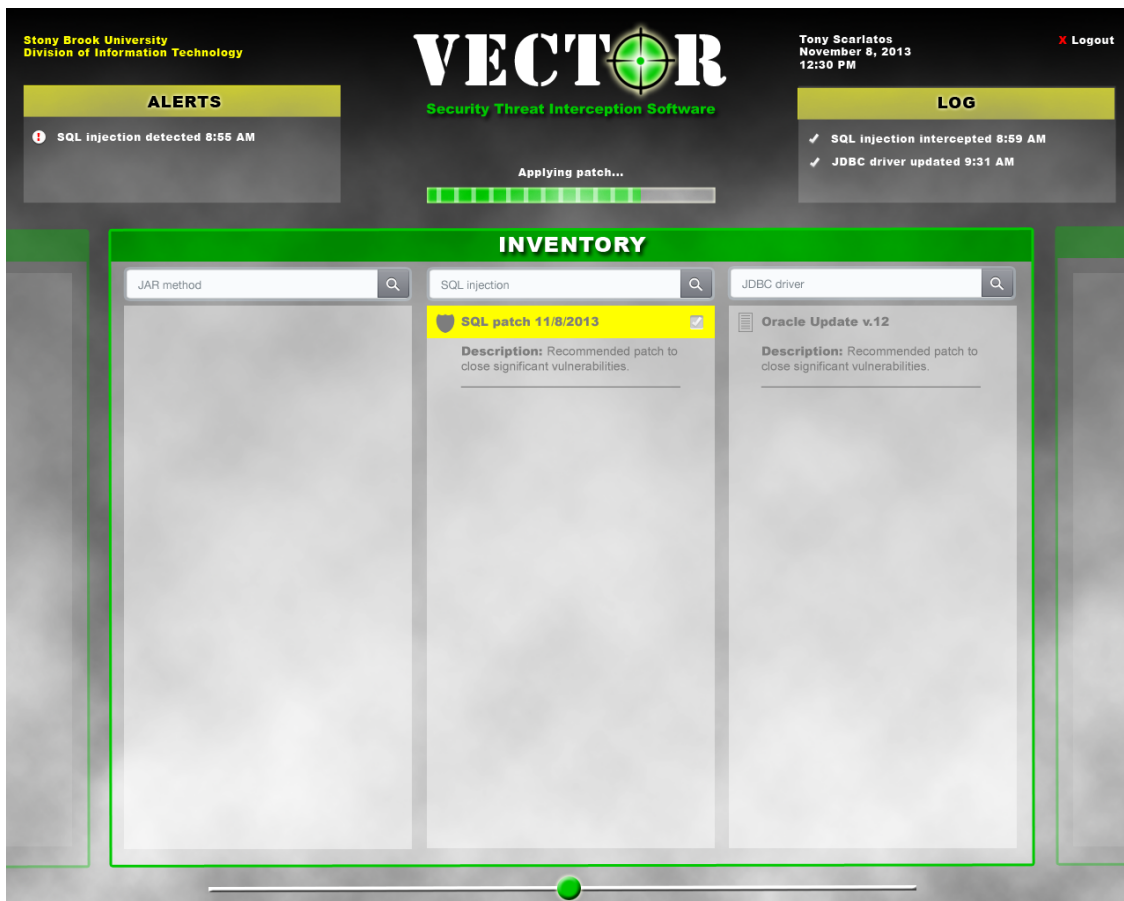
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6. The use of a custom symbol web font for interface icons was determined to be an efficient way of building the UI.



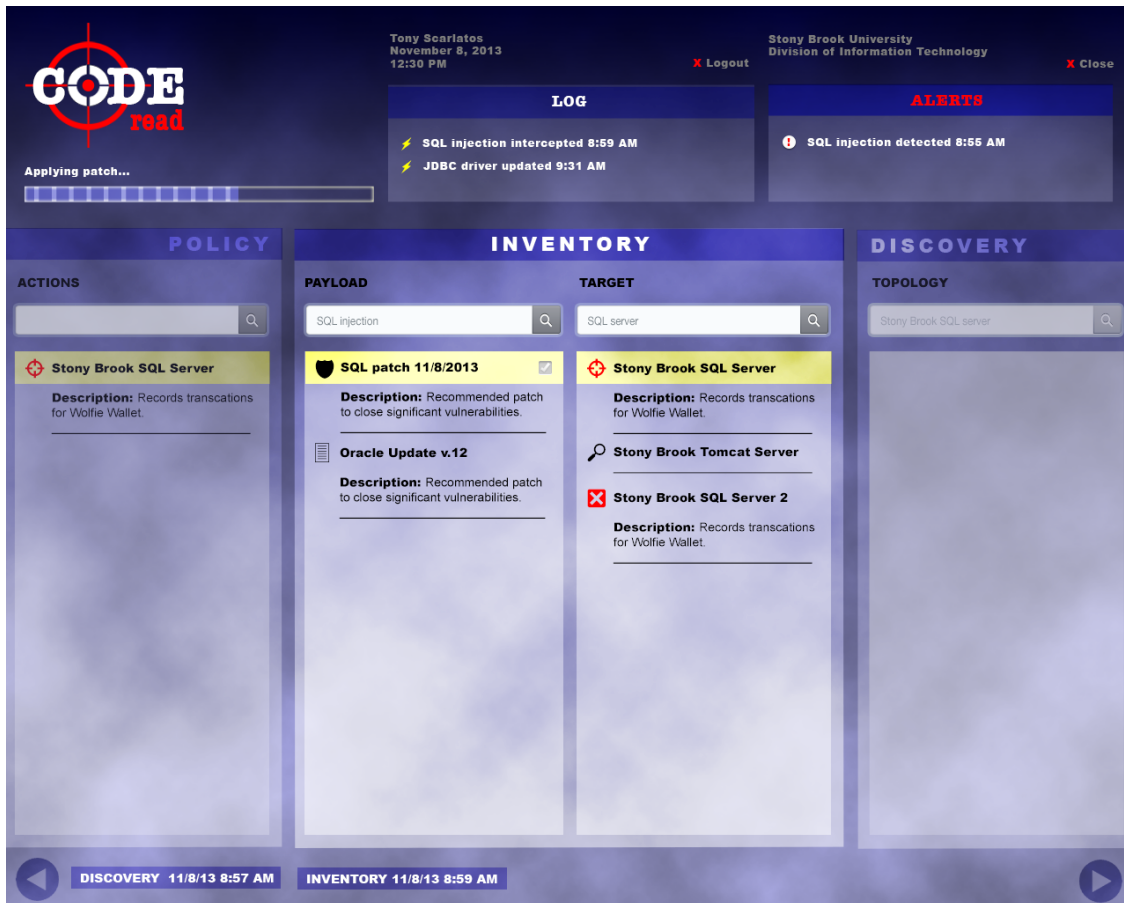
7. A dynamic background was specified that would subtly shift hues and values, using a JavaScript particle system. The intention is to relieve the monotony of staring at a static screen for long periods of time, but also to enhance the HUD/fighter pilot metaphor. The effect is called “The Fog of War”.

8. Combining the logo, icon, and background elements, an initial mock-up of a sample application screen was done. The result was a videogame-like UI.

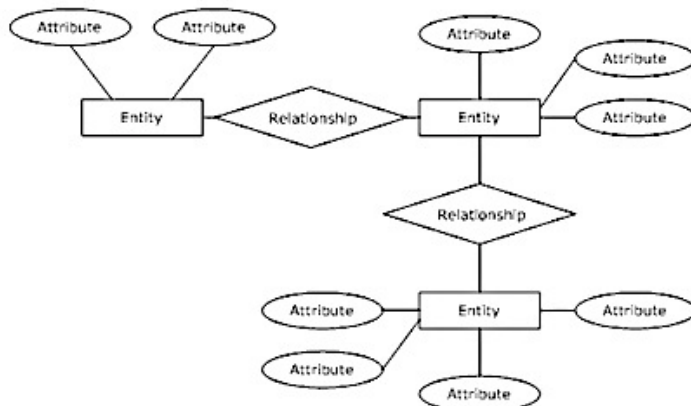


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9. The initial mock-up was further refined. The logo was replaced and the color scheme was changed.

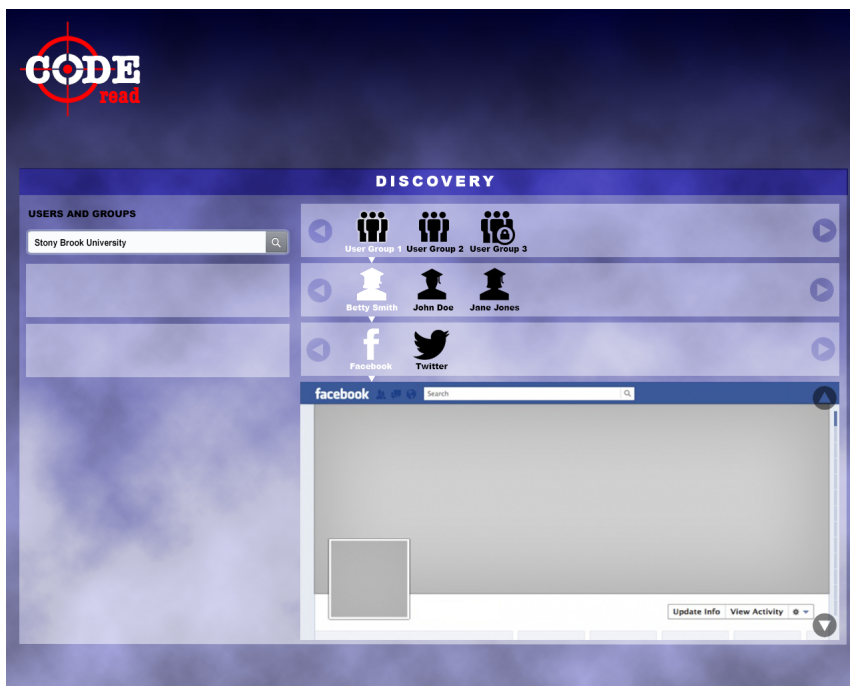
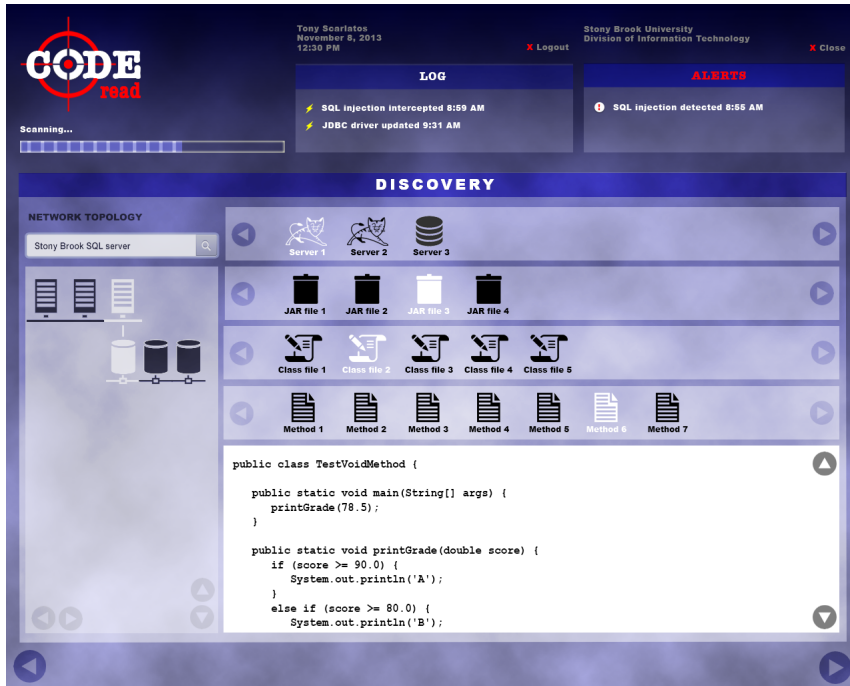


10. The design of the Discovery 'wizard' was the client's top priority. Extensive research was done into Entity Relationship Diagrams (ERD's), and it was determined that a great deal of space was wasted in the traditional ERD. Furthermore, complex datasets quickly became unintelligible.



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11. To save space and add clarity, entity attributes are represented by the design of the icon for the entity itself; and relationships are represented by alignment and highlight, saving many rows of data. Search filters are used to reduce the noise of irrelevant data. The terminal node is able to display the entity, be it a method, a data table, or an HTML page. Several mock-ups were done to explore how the new approach to ERD's would work for different datasets.



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Summary:

The UI design for CODEread is innovative on a number of levels. It acknowledges recent 'gamification' trends in software design, both in the HUD design metaphor and in its use of leaderboards and other motivators. The design leverages state-of-the-art web technologies, such as infinite paging, web fonts, and JavaScript particle systems to create an immersive user experience. CODEread's unique approach to presenting entity relationships increases clarity, makes efficient use of screen real estate, and speeds searches.

Deliverables:

CODEread logo

Start Page

Account Management Page

Dashboard

Discovery Wizard

Policy Wizard

Report Wizard

Documentation

Source files