The Center for Cyber Defenders

Expanding Computer Security Knowledge

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TracerFIRE 6: Game Description Editor

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Problem Statement:

Cybersecurity as a field faces several major challenges. First, cybersecurity is a dynamic and rapidly shifting subject matter, and it is difficult for professionals to keep up to date with cybersecurity issues, both technical and conceptual. Second, cybersecurity professionals are greatly aided by professional connections to other cybersecurity experts, but these connections are difficult to make. Lastly, cybersecurity suffers from an extreme shortage of new talent entering the field.

Tracer FIRE (**F**orensic **I**ncident **R**esponse **E**xercise) combines two days of instruction with a two and a half day live computer forensics exercise. It is designed to improve both the technical and analysis competencies of DOE and Sandia employees.

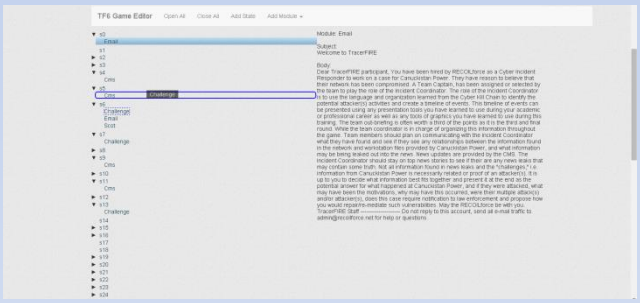
jqTree

Objective and Approach:

- Develop a dynamic game description editor through jQuery and jqTree
- Design a method to allow for fluid and accessible creation of a JSON game description file
- Allow for on the fly creation of a JSON game description file for integration with the TracerFIRE Game Engine

Results:

- Dynamic drag and drop HTML page for customizing and creating TracerFIRE challenges in JSON format
- Streamlined process for challenge and scenario integration
- Expanded use of the TracerFIRE mission and objective to other facets of purpose



Impact and Benefits:

• Provide training and networking in cybersecurity for Sandia and DOE personnel

• Encourage high school and college students to cultivate and pursue an interest in cybersecurity

• Develop the computer forensics and intelligence analysis skills and abilities of all participants

• Improve the teaming and time management skills of all participants