

Improving Distributed Data Collection Capabilities Utilizing TAK/ATAK

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Abstract: The National Assessment Group (NAG) performs and provides the United States Department of Defense with rapid, independent assessments of emerging technologies and systems. Due to the breadth and complexity of their assessments, the NAG gathers and stores voluminous information. Yet, unlike much of the modern equipment being evaluated, the NAG relies heavily upon "pen and paper" collection methods. With this in mind, our team was asked to develop a software-based system that can enhance their collection techniques. After conducting stakeholder analysis, we utilized flow block diagramming to identify key functions required for a plug-in, a software add-on to augment the Android Tactical Assault Kit (TAK/ATAK). We further developed the block diagrams by leveraging wire framing techniques to create a nearly fully functional prototype that was used for further stakeholder analysis and focus group demonstrations. This methodology greatly improved stakeholder analysis, requirements identification, and the final design prior to software development.

Keywords: Android Tactical Assault Kit, Wire Framing, Plug-In