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| Tunnel-K Software Requirements Specification (SRS) |
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### Scope

### Identification

Tunnel-K is an effort by graduate software engineering students at the University of Alabama in Huntsville aimed at building a small-scale wind tunnel and associated software systems. The wind tunnel and its subsystems are intended to be used by science museums, schools, etc. for educational purposes, and it is being built in association with the Hands-On Science Center in Tullahoma, TN. This document addresses all Tunnel-K software systems.

### System overview

The overall Tunnel-K system consists of a wind tunnel structure along with associated computer hardware and software, wiring, sensors, motors, fans, power supplies, etc. used for controlling and monitoring the operation of the tunnel. Additionally, a two-dimensional flow solver application suite will provide the opportunity for experimentation with various shapes in a virtual wind tunnel environment and graphically displayed mach and pressure gradients. The suite will also provide integration with the physical wind tunnel controls so that simulated conditions and be illustrated in the real world.

### Document overview

TBD or removed. “This subclause shall summarize the purpose and contents of this document and shall describe any security or privacy protection considerations associated with its use."

### Referenced documents

TBD – Perhaps include ROM here?

### Requirements

### Required states and modes

3.1.1 The wind tunnel control system shall have two primary modes: air-on and air-off.

### Software item capability requirements

### Software item capability

### Software item external interface requirements

### Interface identiﬁcation and diagrams

### Project-unique identiﬁer of interface

### Software item internal interface requirements

### Software item internal data requirements

### Adaptation requirements

### Safety requirements

### Security and privacy protection requirements

### Software item environment requirements

### Computer resource requirements

### Computer hardware requirements

### Computer hardware resource utilization requirements

### Computer software requirements

### Computer communications requirements

### Software quality factors

### Design and implementation constraints

### Personnel-related requirements

### Training-related requirements

### Logistics-related requirements

### Other requirements

### Packaging requirements

### Precedence and criticality of requirements

### Qualification provisions

### Requirements traceability

### Notes

### Annexes