OVERVIEW

* Real Time Controller
* Calculate safe stopping distance of every train
  + Distance determines the safe authority of each train
* Transmit the safe moving block speed & authority to each trarch andain and CTC
* Handle vital messages from train with position/location
* Handle fixed block speed & authority from track controller
* Handle broken rail information from track circuits
* Display variance rom MBO and Fixed Block speed and authority
* Control Mode of either MBO or Fixed Block
* Track and display passenger movement
* Scheduler
  + Create schedule for train operators
    - ACCOUNT FOR BREAKS AND SHIFT LENGTH
  + Trains return to the yard for shift changes and break
  + 8.5 hour shifts
  + .5 our breaks after 4 hours of driving

REQUIREMENTS

* Auto mode
  + Preset scenarios to demo the system
* Capable of running faster than wall clock time
* Must use one or more arch design patterns covered during term
  + Identified in documentation
* Identify and COTS used
* Describe the safety critical aspects of the system and its effects on arch and design of the system

NON-FUNCTIONAL REQUIREMENTS

* Exe on Win 7 (10???)
* Train, Track, and MBO must have safety crit arch
* MB comm should be vital