

Road map for MT in Gate

1. Gate must avoid the root scoring per event, or modify it so it became thread safe
 - a. It would be beneficial to remove Root at all while scoring.
2. All static object must be evaluated:
 - a. those that has no reason to be static must be converted to dynamic
 - b. those that has a reason to be static must be rewritten to thread safe mode
3. All actors must inherit from Virtual actor
 - a. Virtual actor must differentiate between thread merge and global save
 - b. Each actor must implement both thread merge and global save
 - c. Each actor must implement its own containers and generate locks for accessing them
 - d. The containers must be fully dynamic, and must contain everything they need to run separately, even the synchronized calls to common constant objects like geometries.
4. The run manager should be changed to use the G4MTRunManager
 - a. The Random Engine must be created before initialization, adding the seed after makes no effect on it.

To start, create a gate with only one actor, then add actors one by one.