

```

// ===== ActionInitialization.cc Class =====
//
// Developed by Bryan V. Egner, Darren E. Holland, and Julie V. Logan
// Modified by Darren Holland 2020-11-02
// =====
//
// This file calls/initializes the following classes:
//   - B4PrimaryGeneratorAction
//   - B4RunAction
//   - B4aEventAction
//   - B4aSteppingAction
// =====
//
#include "B4aActionInitialization.hh"
#include "B4PrimaryGeneratorAction.hh"
#include "B4RunAction.hh"
#include "B4aEventAction.hh"
#include "B4aSteppingAction.hh"

// Function to create class
B4aActionInitialization::B4aActionInitialization()
: G4VUserActionInitialization()
{}

// Function to destroy class when finished
B4aActionInitialization::~B4aActionInitialization()
{}

void B4aActionInitialization::BuildForMaster() const
{
    SetUserAction(new B4RunAction);
}

void B4aActionInitialization::Build() const
{
    // Initialize particle generator
    SetUserAction(new B4PrimaryGeneratorAction);
    // Start run (each "global" run is a given source position)
    B4RunAction* runAction = new B4RunAction();
    SetUserAction(runAction);
    // Find events for a local run (single particle) and record total energy
    deposited in detector
    B4aEventAction* eventAction = new B4aEventAction(runAction);
    SetUserAction(eventAction);
    // Step through local run
    SetUserAction(new B4aSteppingAction(eventAction));
    // Nothing occurs after stepaction, and so it loops back to the event action
}

```