

How can I run my Driver outside of JAS3?

In order to run your driver outside of JAS3, for instance as a batch job or in an IDE, you will need to add a `main()` method to your driver. In this main method you must create an `LCSimLoop` object, add any datasets, add your driver, and then run the loop. Here is an example:

ExampleDriver.java

```
import java.io.File;
import java.io.IOException;
import org.freehep.record.loop.LoopException;
import org.lcsim.util.aida.AIDA;
import hep.physics.vec.VecOp;
import java.util.List;
import org.lcsim.event.EventHeader;
import org.lcsim.event.MCParticle;
import org.lcsim.util.Driver;
import org.lcsim.util.loop.FileList;
import org.lcsim.util.loop.LCIOEventSource;
import org.lcsim.util.loop.LCSimLoop;

/**
 * An example LCSim driver
 * @author tonyj
 */
public class ExampleDriver extends Driver
{
    private static AIDA aida = AIDA.defaultInstance();

    protected void process(EventHeader event)
    {
        // Get the list of MCParticles from the event
        List<MCParticle> particles = event.get(MCParticle.class,event.MC_PARTICLES);
        // Histogram the number of particles per event
        aida.histogram1D("nTracks",50,0,200).fill(particles.size());
        // Loop over the particles
        for (MCParticle particle : particles)
        {
            aida.histogram1D("energy",50,0,100).fill(particle.getEnergy());
            aida.histogram1D("cosTheta",50,-1,1).fill(VecOp.cosTheta(particle.getMomentum()));
            aida.histogram1D("phi",50,-Math.PI,Math.PI).fill(VecOp.phi(particle.getMomentum()));
        }
    }

    public static void main(String[] args) throws IOException, LoopException
    {
        LCSimLoop loop = new LCSimLoop();
        loop.setLCIORecordSource(new File("myFile.slcio"));
        // Or to read a stdhep file
        //loop.setStdhepRecordSource(new File("myFile.stdhep"),"sid01");
        // Or to read a list of files
        //loop.setLCIORecordSource(new LCIOEventSource(new FileList(new File("myFileList.filelist"),"My File
List")));
        loop.add(new ExampleDriver());
        loop.loop(100); // 0 means loop forever
        loop.dispose();

        aida.saveAs("myFile.aida");
    }
}
```

See Also

- [LCSimLoop documentation](#)
- [LCIOEventSource documentation](#)
- [FileList documentation](#)