출력 변수 Output

* vtkParticleTracerBase에 정의되었다.
* RequestData 는iteration마다 OutputParticles를 호출한다.
* vtkParticleTracer는 vtkParticleTracerBase를 상속받아 OutputParticles에서 Output을 그대로 돌려준다.
* vtkParticlePathFilter는 내부에 ParticlePathFilterInternal class를 갖고, 여기에 internal class ParticlePathFilterInternal를 갖고, 이 안에 vtkParticleTracerBase\* Filter 포인터가 있다. 여기에서 갖고 있는 Output 변수를 활용한다.

RequestData 🡸 RequestData 🡸 ProcessRequest

class VTKFILTERSFLOWPATHS\_EXPORT vtkParticleTracerBase : public vtkPolyDataAlgorithm

protected:

vtkSmartPointer<vtkPolyData> Output; //managed by child classes

class VTKFILTERSFLOWPATHS\_EXPORT vtkParticleTracer: public vtkParticleTracerBase

int vtkParticleTracer::OutputParticles(vtkPolyData\* poly)

{

this->Output = poly;

return 1;

}

class VTKFILTERSFLOWPATHS\_EXPORT vtkParticlePathFilter: public vtkParticleTracerBase

{

protected:

ParticlePathFilterInternal It;

};

class VTKFILTERSFLOWPATHS\_EXPORT ParticlePathFilterInternal

{

private:

vtkParticleTracerBase\* Filter;

};

int ParticlePathFilterInternal::OutputParticles(vtkPolyData\* particles)

{

…

vtkPointData\* outPd = this->Filter->Output->GetPointData();

vtkPoints\* outPoints = this->Filter->Output->GetPoints();

…

}

PrintParticleHistories: tracing 결과 출력

* PrintParticleHistories: public
* vtkParticleTracerBaseNamespace::ParticleDataList ParticleHistories;: protected

void vtkParticleTracerBase::PrintParticleHistories()

{

cout<<"Particle id, ages: "<<endl;

for(ParticleListIterator itr = this->ParticleHistories.begin();

itr!=this->ParticleHistories.end();itr++)

{

ParticleInformation& info(\*itr);

cout<<info.InjectedPointId<<" "<<info.age<<" "<<endl;

}

cout<<endl;

}

AddSourceConnection: Provide support for multiple seed sources

Port 1에 Input Connection을 Add한다. Port 0은 데이터 소스이고, Port 1부터는 seed source라는 뜻으로 이해한다.

//----------------------------------------------------------------------------

void vtkParticleTracerBase::AddSourceConnection(vtkAlgorithmOutput\* input)

{

this->AddInputConnection(1, input);

}

//----------------------------------------------------------------------------

void vtkParticleTracerBase::RemoveAllSources()

{

this->SetInputConnection(1, nullptr);

}