



Exercise 3: Geometry

Beginners' FLUKA Course

Exercise 3: Geometry

download the solution of ex2.inp from the website into a new **ex3** directory and rename it to ex3.inp

open it using FLAIR

- replace the cylinder with an infinite one

use a ZCC body for the cylinder

use two XYP planes, at $z=0.$ and $z=10.cm,$ to cut it

re-define the regions TARGET and VAC

run

Exercise 3: Geometry

- segment the target into three pieces by two transverse cuts

first segment: from $z=0.$ to $z=1.cm$ (new XYP needed)

second segment: from $z=1.cm$ to $z=2.cm$ (new XYP needed)

third segment: from $z=2.cm$ to $z=10.cm$ (no further bodies needed)

define the 3 target regions

assign them water, ALUMINUM (pre-def), and LEAD (pre-def)

- activate the geometry debugging with a 1mm grid (without FLAIR)
from $(x,y,z)=(-6.,0.,-6.)$ to $(x,y,z)=(6.,0.,11.)$

see in the manual the GEOEND card

run, search for *Geometry debugging* in the .out file, and enjoy the lack of errors

- perform the same operation by the dedicated FLAIR Process/Debug frame