Exercise 1: Basic Input

Beginners FLUKA Course

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Proton beam impinging on a lead cylinder

Get the source example files from the course website

http://www.fluka.org/fluka.php?id=course&sub=program&navig=2&which=prague2011

Create the **ex1** directory
Download all the ex1*.inp files to **ex1** directory

Different input formats:

Filename	Input		Geometry		Comments
ex1.inp	Fixed	Names	Free	Names	RECOMMENDED
ex1free.inp	Free	Names	Free	Names	
ex1_numBased.inp	Fixed	Numbers	Fixed	Numbers	DEFAULT
ex1_numBasedDouble.inp	Fixed	Numbers	Fixed high precision	Numbers	
ex1_numBasedFree.inp	Free	Numbers	Fixed	Numbers	

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run ex1.inp in the ex1 dir

$FLUPRO/flutil/rfluka –N0 –M4 ex1

look at the .out file with less or any other editor e.g. emacs, vi

less ex1001.out

❑ find the inelastic scattering length for beam particles in the target
❑ determine how many primaries are needed to have a run (with 4 cycles) lasting in total 240 seconds
❑ find the fraction of energy leaving the system
❑ calculate the power leaving the system for a beam current of 4mA (in S.I. units)