

Install of EGS5

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Make directory & extraction of files

- Copy egs5 files
 - cd ~
 - Copy all the tar files here.
- Extract files
 - gunzip egs5.0_beta.tar.gz
 - tar xvf egs5.0_beta.tar
 - Also extract files from
kek_sample.tar.gz,mortran.tar.gz(*)
 - *This is necessary ONLY IF you run mortran user
code written for egs4.

Modification of egs5run

- At egs5 directory, enter pwd to find directory name.
Ex, /home/hirayama
- Add /egs5.0_beta to it, and write them to BASKET in kek_sample/egs5run. Ex,
`BASKET=/home/hirayama/egs5.0_beta`

Memo; This directory can be written as
C:¥cygwin¥home¥hirayama¥egs5¥egs5.0_beta
if you see it from windows. Never use this
expression for BASKET.

• Change line of MY_MACHINE if you use machine
other than Cygwin.

Test run of egs5run

- `cd ~/kek_sample`
- Type in `egs5run` and push Enter
- User code name is asked. Key in `ucrz_nai` and push Enter
- Data file name is asked. Just push Enter.
- Pegs5 input file name is asked. Just push Enter.
- Then egs5 runs.

On “How to run EGS5”

- Extension of **use code name** must be “.f”. Enter user code file name without “.f”.
- Enter input file name without extension. Extension must be “.data”, If nothing is entered, “**Usercode name**.data” is used.
- Enter pegs5 input file name without extension. Extension must be “.inp”. If nothing is entered, “**Usercode name**. inp” is used.
- run5again: For re-run egs5 with different data.
- Directory structure: See Page 3 of print.

Major differences of EGS4 and EGS5

- Language : Changed from Mortran to Fortran
 - Macro for execution lines is changed as Subroutine
 - Macro for dimension size is described in header file aux_h.f
- EGS & PEGS are combined. Material data is made “on fly”.
- New physics :
 - Electrons : Transport calculation etc, Photons : Low energy
- Geometry : Improvements of CG
 - Up to 5 times faster than 2003
(Speed ratio [CG versus Non-CG is within 2.5 by Mr. Sugita)
 - Geometry checker : Check CG geometry prior to MC calc.
This should make geometry description be much easier!