

```
# *oooo0000000000000000* #
# * * * * * #
# * GATE_v8.0 * #
# * * * * * #
# *oooo0000000000000000* #
```

```
# *-----* #
# * 04/20/2017 * #
# *-----* #
```

General set-up and installation:

Check the README file to have all informations related to the installation and compilation for this version.

--I M P O R T A N T --

-> In the main macro file configuration, the sources MUST be define AFTER /gate/run/initialize command line <-

-> For collimator design, the Fan Beam option is out of order and should be debug ASAP <-

New developments and features:

NEWS & UPDATES #

- New module for THERMOTERAPY applications.

#For details:

#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0#Thermal_therapy_application

- New module for OPTICAL simulation of scintillation detector

#For details:

#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Generating_and_tracking_optical_photons#LUT_Davis_Model

- TESSELATED volume (read STL input files)

#For details:

#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Defining_a_geometry#How_to_build_a_.22tessellated.22_volume

- HYBRID NAVIGATOR: particle tracking in a volume which combine an analytical and voxelized description

#For details:

#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Tools_to_Interact_with_the_Simulation:_Actors#Merged_Volume_Actor

- DICOM Reader
#For details:
#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Voxelized_Source_and_Phantom#Examples

- New LET (Linear Energy Transfert) actor
#For details:
#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Tools_to_Interact_with_the_Simulation_:Actors#LET_Actor

- Tissue Equivalent Proportional Counter Actor
#For details:
#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Tools_to_Interact_with_the_Simulation_:Actors#PromptGammaTLEActor

- Fast 90-Yttrium (fastY90) source
#For details:
#http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0:Source#The_fastY90_source

- AugerDetectorActor: detector response modelling with the actor approach
#For details:
#Coming soon

- DoseSourceActor to records the dose as function of the spot or layer ID (proton TPSPencilBeam only)
#For details:
#Coming soon

- Improved fast PromptGamma yield actor (vPGTLE, Track Length Estimator)
#For details:
#Coming soon

- FFD (Fixed Forced Detection) with fluence source, FFD example improved
#For details:
#Coming soon

- Fast SPECT simulation with adapted FFD
#For details:
#Coming soon

- Improved TPSPencilBeam (use less memory)
#For details:
#Coming soon

BUG FIXES

- Bug correction in ARF (for SPECT simulation)
- Correction of the PDG encoding for proton in IAEA format
- "HU indices out of the range": fixed
- Fixing mass calculation when volume is not a G4Box

Documentation updates:

Generic page:

http://www.opengatecollaboration.org/index.php/Main_Page
Dedicated wiki page:
http://wiki.opengatecollaboration.org/index.php/Users_Guide_V8.0
Installation guide:
http://wiki.opengatecollaboration.org/index.php/Installation_Guide_V8.0

Examples and other stuffs:

All examples are removed from the GATE source folder and are now available on the github repository:
<https://github.com/OpenGATE/GateContrib>