

# Integer A&Z

Follow-up on migration decided in  
2009

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# Status of migration

- Interface:
- ```
#ifndef G4Hadr_Nucleus_IntegerAZ
//deprecated Jan 2010, GF
    inline G4double GetN() const
    inline G4double GetZ() const
#endif
//to be replaced by new
    inline G4int GetA_asInt() const
    inline G4int GetN_asInt() const
    inline G4int GetZ_asInt() const
```
- Try to compile without old interface
  - Many classes still use deprecated interface

# List of classes requiring old interface

```
./management/src/G4HadronicProcess.cc
./stopping/src/G4KaonMinusAbsorptionAtRest.cc
./models/abrasion/src/G4WilsonAbrasionModel.cc
./models/cascade/evaporation/src/G4BertiniEvaporation.cc
./models/coherent_elastic/src/G4LEnp.cc
./models/coherent_elastic/src/G4LEpp.cc
./models/em_dissociation/src/G4EMDissociation.cc
./models/high_energy/src/G4HEAntiKaonZeroInelastic.cc
./models/high_energy/src/G4HEAntiLambdaInelastic.cc
./models/high_energy/src/G4HEAntiNeutronInelastic.cc
./models/high_energy/src/G4HEAntiOmegaMinusInelastic.cc
./models/high_energy/src/G4HEAntiProtonInelastic.cc
./models/high_energy/src/G4HEAntiSigmaMinusInelastic.cc
./models/high_energy/src/G4HEAntiSigmaPlusInelastic.cc
./models/high_energy/src/G4HEAntiXiMinusInelastic.cc
./models/high_energy/src/G4HEAntiXiZeroInelastic.cc
./models/high_energy/src/G4HEKaonMinusInelastic.cc
./models/high_energy/src/G4HEKaonPlusInelastic.cc
./models/high_energy/src/G4HEKaonZeroInelastic.cc
./models/high_energy/src/G4HEKaonZeroLongInelastic.cc
./models/high_energy/src/G4HEKaonZeroShortInelastic.cc
./models/high_energy/src/G4HELambdaInelastic.cc
./models/high_energy/src/G4HENeutronInelastic.cc
./models/high_energy/src/G4HEOmegaMinusInelastic.cc
./models/high_energy/src/G4HEPionMinusInelastic.cc
./models/high_energy/src/G4HEPionPlusInelastic.cc
./models/high_energy/src/G4HEProtonInelastic.cc
./models/high_energy/src/G4HESigmaMinusInelastic.cc
./models/high_energy/src/G4HESigmaPlusInelastic.cc
./models/high_energy/src/G4HEXiMinusInelastic.cc
./models/high_energy/src/G4HEXiZeroInelastic.cc
./models/lend/src/G4LENDCapture.cc
./models/lend/src/G4LENDElastic.cc
./models/lend/src/G4LENDFission.cc
./models/lend/src/G4LENDInelastic.cc
./models/lend/src/G4LENDModel.cc
./models/low_energy/src/G4LCapture.cc
./models/low_energy/src/G4LEAlphaInelastic.cc
./models/low_energy/src/G4LEDeuteronInelastic.cc
./models/low_energy/src/G4LEElastic.cc
./models/low_energy/src/G4LENeutronInelastic.cc
./models/low_energy/src/G4LEProtonInelastic.cc
./models/low_energy/src/G4LETritonInelastic.cc
./models/low_energy/src/G4LFission.cc
./models/management/src/G4InelasticInteraction.cc
./models/neutron_hp/src/G4NeutronHPorLCaptureModel.cc
./models/neutron_hp/src/G4NeutronHPorLEInelasticModel.cc
./models/neutron_hp/src/G4NeutronHPorLElasticModel.cc
./models/neutron_hp/src/G4NeutronHPorLFissionModel.cc
./models/neutron_hp/src/G4NeutronHPThermalScattering.cc
./models/photolepton_hadron_muon_nuclear/src/G4VDMuonNuclearModel.cc
./models/rpg/src/G4RPGFragmentation.cc
./models/rpg/src/G4RPGInelastic.cc
./models/rpg/src/G4RPGNeutronInelastic.cc
./models/rpg/src/G4RPGPionSuppression.cc
./models/rpg/src/G4RPGProtonInelastic.cc
./models/rpg/src/G4RPGReaction.cc
./models/rpg/src/G4RPGTwoBody.cc
./models/rpg/src/G4RPGTwoCluster.cc
./models/qmd/src/G4QMDReaction.cc
./models/theo_high_energy/src/G4ProjectileDiffractiveChannel.cc
```

# Proposal

- Likely many places were simply forgotten?
- Re-start migration
- Remove all uses by October reference tag
- Goal to remove old interface by 9.5
  - Unless real requirement to keep old interface