

# MC Production

## Issues with the latest software

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# Software issues

- End of last year: Bug discovered in Mokka:
  - Access to out of bound array entries overwrites internal memory
  - Effect unpredictable
    - Geant4 9.3p02 with Mokka v07-06p02: G4Box out of bounds ==> crash
    - Geant4 9.4p02 with Mokka v07-06p02: No obvious problems.
    - Unlikely, but: might affect physics! Not usable for any kind of publication.
  - Fixed in Mokka v07-06p03-SDHcal
  - Mokka v07-06p03-SDHCal and higher are officially compatible with Geant4.9.4+
- First tries with Mokka v07-07p04 and Geant4.9.3(p02) works, but gives crashes at the end of execution
  - Debugging can take quite some time
  - Maybe different Mokka patch works? ==> Much trial and error

# MC Requests to reprocess

- [ All MC requests would have to be reprocessed
  - Definitely Katja/Marina (for software compensation paper and tracking paper)
  - Marina proton only
  - What about older requests?
    - Still not redone: 5 requests where accidentally the wrong software version was used (see Heidelberg talk)
      - 2 Katja/Marina/Lars: Are reprocessed anyway with new Geant Version
      - 2 Nils: No digi, special gun position, only 10k events.
      - 1 Muon: Impact of Geant version negligible
    - Even older requests?
- [ Is it worth the effort to get Geant 4.9.3(p02) to run without the bug (Mokka v07-06-p03-SDHcal+)?