

Simulation Updates

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WP6 Meeting

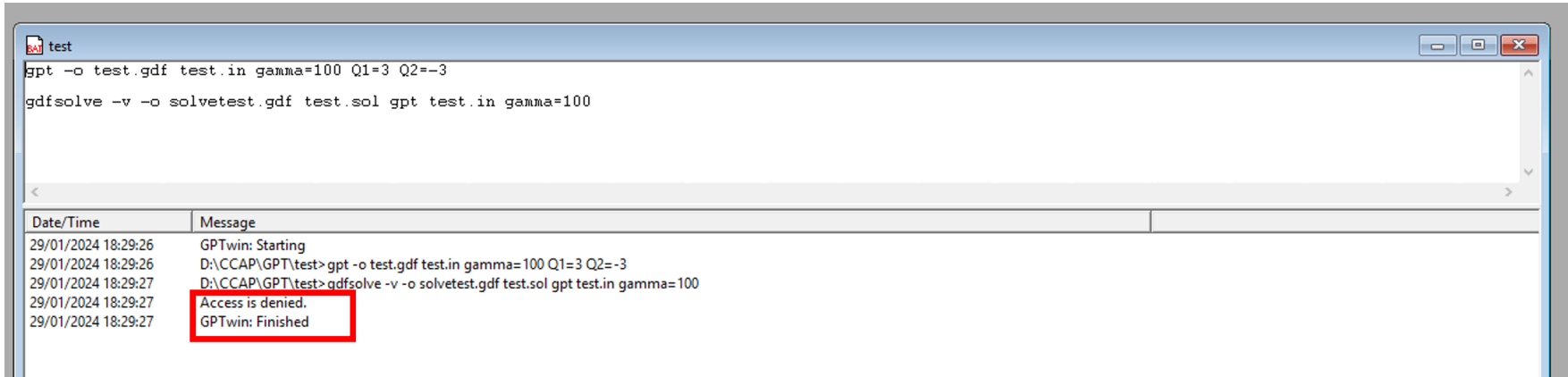
30th January 2024



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- All GPT models done (v4.6)
- Can run gpt, but gdfsolve ...



```
test
gpt -o test.gdf test.in gamma=100 Q1=3 Q2=-3
gdfsolve -v -o solvetest.gdf test.sol gpt test.in gamma=100
```

Date/Time	Message
29/01/2024 18:29:26	GPTwin: Starting
29/01/2024 18:29:26	D:\CCAP\GPT\test> gpt -o test.gdf test.in gamma=100 Q1=3 Q2=-3
29/01/2024 18:29:27	D:\CCAP\GPT\test> gdfsolve -v -o solvetest.gdf test.sol gpt test.in gamma=100
29/01/2024 18:29:27	Access is denied.
29/01/2024 18:29:27	GPTwin: Finished

- Mystery error. No other utility programs affected.
- Ajit support

- Development underway for Gabor lens in BDSIM.
- Parameterised geometry
 - Cylindrical – radius
 - Apertures
- Strength parameter – electron density ($\times 10^{15}$)
- Optional inclusion of EM plasma containment fields?
 - Will affect lower energy particles
 - Reuse solenoid field, E field needs adding

- Ongoing:
 - Gabor lens in BDSIM
 - Optimise updated stage 1 for low beta
 - FFA injection line performance simulations
 - Base line design update report write-up
 - RF-Track – particle reader from BDSIM/GPT files.

- Todo:
 - Performance evaluation of $\pm 5\%$ beams
 - Update models of alternative baseline design (v5.5)
 - +....