

DD/EXP/62/10
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DATA TESTS IN GRIND
X-60 and X-116

The geometry data coming from THRESH pass a number of tests in the early stage of GRIND. The result of each test gives rise to a bit in the error word being set at 1 or 0 depending on the test "failing" or "successful" 12 possible tests are built into GRIND, eight of them are executed in the version discussed. As the error word is printed in octal (headed "TESTS"), I give the appearance of the failing test in this form.

1. 4000 Track fails completely in THRESH
3. 1000 Track does not converge, approximation is given
5. 200 $3(\Delta^{1/e})_{\text{ext}} > 1/e$
6. 100 $3(\Delta^{1/e})_{\text{ext}} < (\Delta^{1/e})_{\text{int}}$
7. 40 $3 \Delta \lambda_{\text{ext}} < \Delta \lambda_{\text{int}}$
8. 20 $3 \Delta \ell_{\text{ext}} < \Delta \ell_{\text{int}}$
10. 4 First point of track was not fitted with track
11. 2 One of X,Y,Z of first track point differs from X,Y,Z for separately measured point by more than 3 ($\Delta X, \Delta Y, \Delta Z$).

Test 1) Failing sets the track unmeasured and \pm charge

5) Failing sets P badly measured and charge \pm

All other tests merely are signalled. Amongst these test 3) (1000) asks for special attention, as the THRESH approximation is not necessarily a reliable estimate.