ARTIFICIAL BUG INSEMINATION

To estimate TEST COVERAGE during system testing of a Software System.

The project manager, in secret, inserts some bugs in random locations within the software under test.

When next the test manager reports on the bugs discovered in, say, the past week

The project manager examines how many of the discovered bugs were among the ones inserted. This ratio provides an estimate of the Test Coverage during the week.

The test coverage can then be used to calculate the residual bugs in the system under test, thence the time to target before delivery to the client.

Eg

The project manager inserts 6 bugs in the system under test.

One week later the test manager reports finding 8 bugs during the week's testing.

The project manager finds that of the 8, 2 were from the set of 6 originally inserted.

The conclusion is that test coverage during the week was about one third.

If test coverage was one third and 8 bugs were found,
Then residual bugs at the start of the week were 24, of which
18 were genuine and 6 had been inserted by the project manager.

At the end of the week 6 of the genuine bugs have been found and 2 of the inserted bugs.

After removal of the remaining 4 inserted bugs
Residual genuine bugs can be estimated at 12.

At a similar level of test coverage time to target of zero bugs can be estimated at above 2 weeks.