

# The Daily Telegraph

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## BENCHMARK TESTING CAD/CAM

Benchmark testing is a well tried and proven method of selecting the best CAD/CAM system from a final short-list of three or four alternatives. The main reasons for benchmark testing are:

- To see all the systems tackle the same job
- To get under gloss of standard sales demonstrations
- Would you buy a car without a test drive?

### What is a Benchmark Test?

A CAD/CAM benchmark test is a comparative test of functional capability. Unlike the better known benchmark tests used to compare computer processing speeds, CAD/CAM benchmark tests do not:

- Test system capacity
- Show whether the system can handle large jobs
- Test productivity potential
- Show CAD/CAM in the best light!

### Test Design

The objective should be to produce a test which is simple, practical and relevant to your application and requirements. The test should be designed from a practical engineering viewpoint as clever theoretical tests generally prove nothing. You should specify the results required but allow the vendor to choose the method best suited to his system. In this way you will allow each vendor scope for showing off the particular strengths of their system whilst maintaining a sufficient degree of commonality for you to analyse the results on a comparable and equitable basis.

Four other guide-lines to note are:

- Pick only a few key tasks relevant to your requirements
- Use a real job as the basis for the test
- Avoid unnecessary repetition in order to save time
- Supply some material in advance and some on the day of the test

To minimize the risk of misunderstanding clouding the issue, it is worth holding separate advance meetings with each vendor to explain the test requirements in detail. However, do not allow the vendors to talk you into changing the test at this stage – it has to be comparable.

## Test Management

During each test you should:

- Make copious notes
- Insist on task completion
- Avoid lengthy generalised or conceptual discussions
- Note the equipment and software used
- Note software failures, don't believe excuses blaming the hardware
- Don't pressurise the operator
- Try to limit your numbers to three or four
- Avoid alcohol at lunch time
- Don't use a stop watch, instead use the opportunity to understand:
  - The technical features of the system
  - The method used
  - The alternative methods available

## Analysis of Results

When analysing and comparing the test results you will need to assess the reasons for any failures to complete the work. Possible reasons include:

- Too much work
- Vendor not prepared
- Incompetent operator
- System failures

To arrive at a final choice of system, all those witnessing the tests should independently score each system for:

- Ease of use
- Functionality and number of options available
- Accuracy and quality of results
- Perceived quality of vendor support

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