



Figure 9. Backups performed in test cycle.

manually. One way is to use the outside cover sheet of the folder to indicate pass or fail. The other is to highlight each cell in the matrix as the test is completed and passed. It is good to use both methods.

The Key Benefits of Using Test Cycles

Although designing test cycles and business cases is extra work, there are some excellent benefits you achieve with no other test method that are especially important for Y2K testing.

- **The ability to simulate a business case from point A to point Z in your processing.** Most other test methods focus on one process or software module at a time, but never have a way to effectively string them together for end-to-end testing of a system or systems.
- **The ability to plan and coordinate the march of time for a test.** For Y2K testing, the tester knows that time must be advanced, but the problem is how to maintain synchronization among the test data, test environment, and test cases. The test-cycle concept allows you to do this with ease.
- **A safety net in case the test environment gets corrupted.** It is common in testing for the test to destroy data or update data files with incorrect information. It also is not uncommon for other people to delete or to restore over test files. The common response to this situation is to restore from the last backup, but how do you know what was tested since the last backup? In most test processes you do not know exactly what was done, but with test cycles, you *do* know. The backup process is fairly straightforward. You take image backups of the test environment before and after on-line input. If batch processing is part of your test, the backup taken after on-line processing will also suffice for the batch backup (Figure 9). These backups should be taken during each test cycle.

Conclusion

In testing, the confidence level of the test depends on the rigor and coverage of the test. The rigor and coverage of the test depends on the relative risk, both business and technical. While some might look at the work involved in planning a test using test cycles as being excessive, others will testify that this kind of effort is required on some projects and systems to validate their operation through multiple simulated dates. The extent of test planning and execution always depends on the scope of coverage and risk. The question is, are you willing to bet your business or systems operation on anything less than the right test method for the job? ♦

About the Author



Randall W. Rice is president of Rice Consulting Services, Inc. and has over 20 years experience building and testing large-scale information systems. He is a certified quality analyst and certified software test engineer specializing in systems testing and the testing of Y2K projects. He is the author of *The Year 2000*

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