What is claimed is:

1. A system comprising:

a first memory comprising primary storage;

a second memory comprising secondary storage, the first memory and the second memory comprising different storage devices; and

a control system comprising one or more processing devices for predicting paths through a test program that will be taken during a planned execution of the test program, and for causing test data associated with the test program to be stored in the first memory or the second memory based on the paths predicted;

wherein causing the test data to be stored comprises:

causing the test data to be stored in the first memory;

causing at least some of the test data to be moved from the first memory to the second memory prior to the planned execution; and

causing the at least some of the test data to be moved from the second memory back to the first memory based on a time of the planned execution.

2. The system of claim **1**, wherein the at least some of the test data is caused to be moved from the first memory to the second memory based on a storage capacity of the first memory.

3. The system of claim **2**, wherein the at least some of the test data is caused to be moved from the first memory to the second memory prior to the planned execution when the first memory is full.

4. The system of claim **2**, wherein the at least some of the test data is caused to be moved from the first memory to the second memory when the first memory does not have enough storage capacity for both the at least some of the test data and other test data, the other test data being predicted to be needed by the test program before the at least some of the test data.

5. The system of claim **1**, wherein the at least some of the test data is caused to be moved from the second memory back to the first memory at a time prior to the time of the planned execution.

6. The system of claim **1**, wherein the second memory has greater storage capacity than the first memory.

7. The system of claim **1**, wherein the control system is configured to execute a model for predicting the paths through the test program.

8. The system of claim **7**, wherein the model comprises at least one of a probability model, a Markov model, a Bayesian model, or a machine learning model.

9. The system of claim **7**, wherein the model comprises parameters that are obtained through a static analysis of the test program.

10. The system of claim **9**, wherein the parameters are weighted based on historical data, the historical data being based on prior executions of the test program.

11. The system of claim **1**, wherein the second memory stores multiple test programs including the test program; and

wherein the control system is configured to determine which of the multiple test programs to copy to the first memory based on one or more factors, and to copy one or more of the test programs from the second memory to the first memory based on the one or more factors.

12. The system of claim **11**, wherein the one or more factors comprise user input.

13. The system of claim **11**, wherein the one or more factors comprise an identity of a device to be tested by the one or more test programs.

14. The system of claim **11**, wherein the one or more factors comprise an identity of a manufacturer of a device to be tested by the one or more test programs.

15. The system of claim **11**, wherein the control system is configured to receive information to authenticate a user prior to copying one or more of the multiple test programs to the first memory.

16. The system of claim **11**, wherein the multiple test programs in the secondary memory are encrypted.

17. A system comprising:

a first memory comprising primary storage;

a second memory comprising secondary storage, the primary memory and the secondary memory comprising different storage devices;

a control system comprising one or more processing devices for predicting paths through a test program that will be taken during a planned execution of the test program, and for causing test data associated with the test program to be stored in the first memory or the second memory based on the paths predicted;

wherein the control system is also configured to perform operations comprising:

performing a static analysis of the test program, the static analysis identifying first paths through the test program that could be taken during a hypothetical execution of the test program;

obtaining historical data that is based on second paths through the test program that have been taken during past executions of the test program; and

weighting the first paths based on the historical data to produce a model;

wherein predicting the paths through the test program is performed based on the model.

18. The system of claim **17**, wherein performing the static analysis comprises identifying a branch in the test program, the branch splitting into multiple paths that the test program may follow, the first paths comprising the multiple paths.

19. The system of claim **17**, wherein the test program is packaged with the historical data and the test data; and

wherein the historical data is obtained from the test program.

20. A method comprising:

performing a static analysis of a test program, the static analysis identifying first paths through the test program that could be taken during a hypothetical execution of the test program;

obtaining historical data that is based on second paths through the test program that have been taken during past executions of the test program;

weighting the first paths based on the historical data to produce a model;

using the model to predict third paths through the test program that will be taken during a planned execution of the test program; and

storing test data associated with the test program in memory based on the third paths.

21. The method of claim **20**, wherein the memory comprises first memory and second memory, the first memory and the second memory comprising different storage devices; and

wherein storing the test data comprises storing the test data in the first memory, at least some of the test data being retrieved from the first memory during execution of the test program.

22. The method of claim **21**, further comprising:

moving the at least some of the test data from the first memory to the second memory prior to the planned execution; and

moving the at least some of the test data from the second memory back to the first memory based on a time of the planned execution.

23. The method of claim **21**, wherein the second memory has greater storage capacity than the first memory.

24. The method of claim **22**, wherein the at least some of the test data is moved from the first memory to the second memory when the first memory is full.

25. The method of claim **22**, wherein moving the at least some of the test data from the second memory back to the first memory occurs prior to the time of the planned execution.

26. The method of claim **24**, wherein the at least some of the test data is moved from the first memory to the second memory when the first memory does not have the storage capacity for both the at least some of the test data and other test data, the other test data being predicted to be needed by the test program before the at least some of the test data.

27. The method of claim **20**, wherein performing the static analysis comprises identifying a branch in the test program, the branch splitting into multiple paths that the test program may follow, the first paths comprising the multiple paths.

28. The method of claim **20**, wherein the model comprises at least one of a probability model, a Markov model, a Bayesian model, or a machine learning model.

29. The method of claim **20**, wherein the test program is packaged with the historical data and the test data; and

wherein the historical data is obtained from the test program.