

VERISURF NIST TEST DETAILS

The **NIST Test** is in the **Measure Ribbon Bar** under the **Report** controls. Use the **NIST Test** to execute a Digital Artifact Verification Process that tests and verifies Verisurf Software's algorithms.

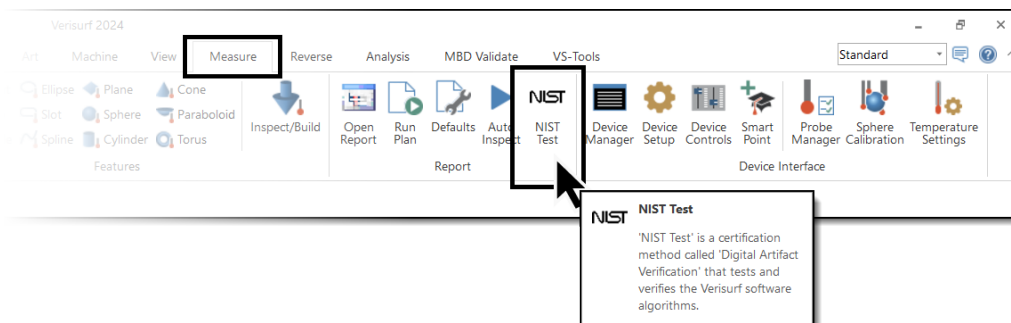
The United States of America's National Institute of Standards and Technology (NIST) provides the Algorithms. The current standard for testing is Lines (2D and 3D), Circles (2D and 3D), cylinders, cones, and spheres is ASME B89.4.10-2000 of *Methods for Performance Evaluation of Coordinate Measuring System Software*.

NIST has provided a dataset to Verisurf Software; this dataset simulates measurements from a CMM and contains form and measurement errors per the ASME Standard listed above. When the NIST Test Button is selected, the selected dataset is loaded; a fit is executed, compared to the NIST standard. A report is generated in the Data Tree.

Here is a link to the official NIST website on Algorithm Testing: <https://www.nist.gov/pml/engineering-physics-division/dimensional-metrology/algorithm-testing>

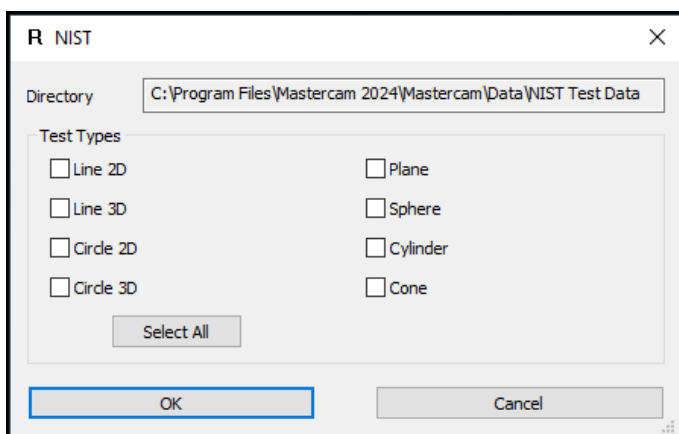
Run the NIST Test

1. Start a New File without a CAD model or measurement data.
2. On the **Measure Ribbon Bar**, select **NIST Test**.

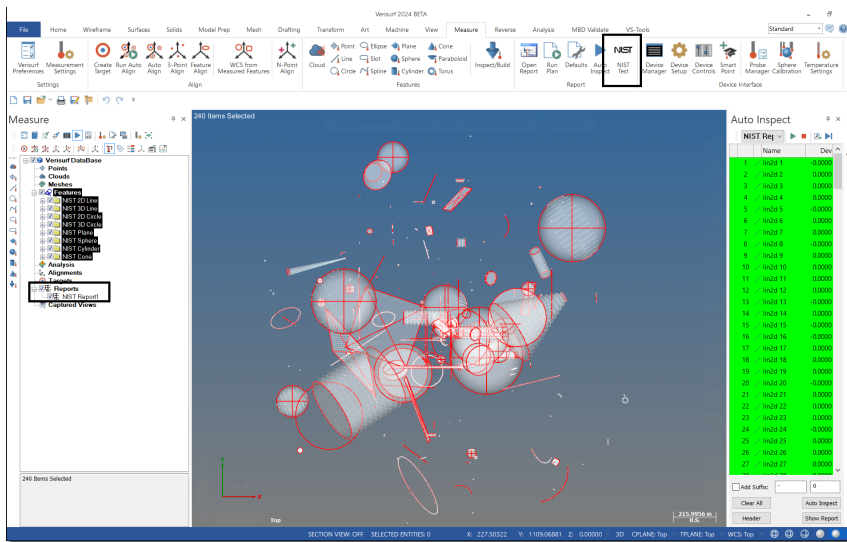


3. In the **NIST** dialog (below), select the algorithms to test, choose **Select All** to verify all displayed algorithms in Verisurf.

Verisurf provides the location of NIST Test Data at the top of the dialog box.



- After selecting any or all test types, choose **OK** in the **NIST** dialog to populate the **Data Tree** with **Features**; a **Report** generates and populates the **Auto Inspect Manager** (shown below):



Create a Report

The **NIST** test results can be printed or saved to the computer hard drive, network, or external storage device. Using the Report Manager, you can generate; PDF, HTML, Excel, Word, Powerpoint, Text, or Database reports of the NIST Test results.

- Double left-mouse click on the Report titled NIST Report1 to open the Report Manager on the Data Tree.
- Select the type of Report you would like to generate; PDF and HTML formats work best.

Generating Excel, Word, or Powerpoint Reports can be time-consuming due to the amount of data.

