

P1851

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Type of Project: New IEEE Standard

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Status: PAR for a New IEEE Standard

Project Record: No Project Record

1.1 Project Number: P1851

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Design Criteria of Integrated Sensor-based Test Applications for Household Appliances

3.1 Working Group: Working Group for Test Technology for Household Appliances (C/TT/THA)

Contact Information for Working Group Chair

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None

3.2 Sponsoring Society and Committee: IEEE Computer Society/Test Technology (C/TT)

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None

3.3 Joint Sponsor: IEEE Instrumentation and Measurement Society/TC9 - Sensor Technology (IM/ST)

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 08/2011

4.3 Projected Completion Date for Submittal to RevCom: 02/2012

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This standard defines the integrated framework of the test software for household appliances oriented to the data from intelligent sensors, including system framework, interfaces of Web Services, and data exchange formats, which can be divided as: (1) The system framework to integrate the distributed test applications. (2) The description of appliance test environment and test information, including the metadata of the whole test application, the metadata of the appliance to be tested, the metadata of the sensors, and the sensor data. (3) The file format of test data to be exchanged among distributed test applications. (4) The Web Services to transform and transfer monitored data.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This standard defines the file format of test data from household appliances and the Web Services that enable the exchange of such test data. Implementation of this standard solves the interoperability and integration problems for building test applications for household appliances as well as the problems related to the exchange of test data.

5.5 Need for the Project: Due to the lack of the development criterion of test applications for household appliances, there exist many problems, such as integration problems, reusability problems of software module, systems interoperability problems, and exchange problems of test electronic documents. Specifically, for some government supervision departments, it affects the supervision efficiency due to multiple data formats, multiple test types, diverse measurement systems, and limited human resources. For the product manufacturing enterprises, it leads to low measurement and management efficiency. For the test software development corporations, it brings low development efficiency, huge costs, long cycles, and waste of manpower resources.

This standard provides the standard format of testing data of household appliances, which makes it easier for users from different enterprises, including product supervisors of government, to read and exploit such kinds of data. This standard also provides the system framework and several basic Web Services like testing data transforming and transferring, which are the basis for software engineers to develop integrated testing applications. This standard plays a very important role in improving the supervising efficiency of government departments, the quality management efficiency of the manufacturing enterprises, and the test software development efficiency of software development corporations.

5.6 Stakeholders for the Standard: Household appliances enterprises, supervision departments of household appliances quality, and test application developing enterprises.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

7.3 International Activities

a. Adoption

Is there potential for this standard (in part or in whole) to be adopted by another national, regional or international organization?: No

b. Harmonization

Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?: No

8.1 Additional Explanatory Notes (Item Number and Explanation):