

IEEE Standard for Automatic Test Markup Language (ATML) Test Configuration

IEEE Standards Coordinating Committee 20

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IEEE Standards Coordinating Committee 20 on
Test and Diagnosis for Electronic Systems

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IEEE Std 1671.4™-2014
(Revision of
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**IEEE Standards Coordinating Committee 20 on
Test and Diagnosis for Electronic Systems**

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Abstract: An exchange format is specified in this standard, using extensible markup language (XML), for identifying the test configuration used to test for and diagnose faults of a unit under test (UUT) on an automatic test system (ATS).

Keywords: ATML instance document, automatic test equipment (ATE), Automatic Test Markup Language (ATML), automatic test system (ATS), IEEE 1671.4™, Master Configuration Control Document (MCCD), Master Test Program Set Index (MTPSI), station configuration file, test configuration, XML schema

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Participants

At the time this draft standard was completed, the 1671.4 Working Group had the following membership:

Mike Seavey, Chair

Chris Gorringe
Anand Jain

Teresa Lopes

Ion Naeg
Ron Taylor

The following members of the individual balloting committee voted on this standard. Balloters may have also voted for approval, disapproval, or abstention.

Malcom Brown
Keith Chow
James Dumser
Sourav Dutta
William Frank
David Friscia
Chris Gorringe
Randall Groves
Werner Hoelzl

Noriyuki Ikeuchi
Anand Jain
Michael Lauxman
Teresa Lopes
Greg Luri
William Maciejewski
Mukund Modi
Ion Neag
Leslie Orledge
Ulrich Pohl

Bartien Sayogo
Stephen Schwarm
Mike Seavey
Joseph Stanco
Walter Stupp
Ron Taylor
John Venis
Chen Wen
Lidi Zhong

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Hui Ling
Oleg Logvinov
Ted Olsen
Glenn Parsons

Ron Petersen
Adrian Stephens
Peter Sutherland
Yatin Trivedi
Phil Winston
Don Wright
Yu Yuan

*Member Emeritus

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Richard DeBlasio, *DOE Representative*
Michael Janezic, *NIST Representative*

Patrick Gibbons
IEEE Standards Program Manager, Document Development

Kathryn Bennett
IEEE Standards Program Manager, Technical Program Development

Introduction

This introduction is not part of IEEE Std 1671.4™-2014, IEEE Standard for Automatic Test Markup Language (ATML) Test Configuration.

This child, or “dot” standard, also known as an automatic test markup language (ATML) component standard, provides for the definition of the *TestConfiguration* XML schema and contains references to an example. The XML schema and example that accompany this standard provide for the identification of all of the hardware, software, and documentation that is required to test and diagnose a unit under test (UUT) on an automatic test system (ATS).

ATML’s XML schemas define the basic information required within any test application and provide a vehicle for formally defining the test environment by defining a class hierarchy corresponding to these basic information entities and providing several methods within each to enable basic operations to be performed on these entities. ATML component standards within the ATML framework define the particular requirements within the test environment.

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1. Overview

1.1 General

Automatic test markup language (ATML) is a collection of IEEE standards and associated eXtensible markup language (XML) schemas that allow automatic test system (ATS) and test information to be exchanged in a common format adhering to the XML standard¹.

The ATML framework and the ATML family of standards have been developed and are maintained under the guidance of the Test Information Integration (TII) Subcommittee of IEEE Standards Coordinating Committee 20 (SCC20) to serve as a comprehensive environment for integrating design data, test strategies, test requirements, test procedures, test results management, and test system implementations, while allowing test program (TP), test asset interoperability, and unit under test (UUT) data to be interchanged between heterogeneous systems.

This standard (as well as the XML schema and XML instance document example² that accompany this standard) is intended to be used in documenting the test configuration utilized during the testing of a

¹ This information is given for the convenience of users of this standard and does not constitute an endorsement by the IEEE of this consortium standard. Equivalent standards or products may be used if they can be shown to lead to the same results.

² The XML schemas and examples that accompany this standard are available at the locations defined in Clause 6.