



## ATS EDO NOTICE 8

06 November 2019

From: Director, ATS Executive Directorate Office (EDO)

Subj: DOD ATS OPEN SYSTEMS INTERFACES

1. This notice is issued to add IEEE standards associated with the Design for Testability (DFT), Master Conformance Index (MCI), Product Design Data (PDD), and Test Program Documentation (TPD) elements. There are now a total of seventeen Automatic Test Systems (ATS) interfaces that have specifications identified for them, and one technical architecture rule.
2. This notice is also issued to add the 1871.2 standard to the Adapter Functional and Parametric Information (AFP) and Test Station Functional and Parametric Information (TSFP) elements.
3. This notice is also issued to add the 1636.1 standard to the previously added Maintenance Test Data and Services (MTDS) element.

Interface	Acronym	Specification(s)
Digital Test Format	DTF	IEEE Std. 1445 Standard for Digital Test Interchange Format (DTIF)
System Framework	FRM	VPP-2 Frameworks Specification  IEEE Std. 1671 ATML-2010
Instrument Driver	DRV	VPP-3.x Family of Instrument Driver Specifications  *IVI-3.1, 3.2, 3.3, 3.4, & 3.14 Selected IVI Architecture Standards*
Instrument Communication Manager	ICM	VPP-4.3 Virtual Instrument Software Architecture
Network Protocols	NET	IETF RFC0791 and RFC0793
Runtime Services	RTS	IEEE Std. 1671 ATML Annex D Runtime Services
Adapter Functional and Parametric Information	AFP	IEEE Std. 1671.5 ATML Test Adapter  IEEE Std. 1871.2 Recommended Practice for IEEE 1671

		Test Equipment Templates and Extension Classes for Describing Intrinsic Signal Path Information for Cables, Interface Adapters, and Test Equipment
Instrument Functional and Parametric Information	IFP	IEEE Std. 1671.2 ATML Instrument Description
Test Station Functional and Parametric Information	TSFP	IEEE Std. 1671.6 ATML Test Station  IEEE Std. 1871.2 Recommended Practice for IEEE 1671 Test Equipment Templates and Extension Classes for Describing Intrinsic Signal Path Information for Cables, Interface Adapters, and Test Equipment
Diagnostic Data	DIAD	IEEE Std. 1232 Artificial Intelligence Exchange and Service Tie to All Test Environments (AI-ESTATE)
Diagnostic Services	DIAS	IEEE Std. 1232 Artificial Intelligence Exchange and Service Tie to All Test Environments (AI-ESTATE)
Maintenance Test Data and Services	MTDS	IEEE Std. 1636.1 Software Interface for Maintenance Information Collection and Analysis (SIMICA): Exchanging Test Results and Session Information via the eXtensible Markup Language (XML)  IEEE Std. 1636.2 Software Interface for Maintenance Information Collection and Analysis (SIMICA): Maintenance Action Information (MAI)
Resource Adapter Information	RAI	IEEE Std. 1641 Annex K Standard For Signal and Test Definition
Design for Testability	DFT	IEEE Std. 1149.1 Test Access Port and Boundary-Scan Architecture  IEEE Std. 1149.4 Mixed Signal Test Bus  IEEE Std. 1149.6 Boundary-Scan Testing of Advanced Digital Networks  See the DoD Handbook “DFT for Boundary Scan Diagnostics” which provides guidance on the acquisition of boundary scan technology
Master Conformance Index	MCI	IEEE Std. 1671.4 ATML Test Configuration
Product Design	PDD	IEEE Std. 1671.3 ATML UUT Description

Data		
Test Program Documentation	TPD	IEEE Std. 1671.1 ATML Test Description

\* In cases where multiple standards are listed for one element, the user can choose which standards to include but the preferred standards are noted with an asterisk (\*).

ATS Interface Rule Number	Mandatory Guidance
1	Any element of the technical architecture that is implemented shall not be bypassed by a direct communication to another interface or layer further on in the process.

4. These above seventeen ATS interfaces with their related specifications are recommended to be incorporated in all future ATS acquisitions and in ATS modernization planning where applicable. In addition, ATS interface rules should be considered. As additional interface specifications and rules are identified, they will be issued via ATS Executive Directorate Office Notice.

5. Questions may be addressed to Service ATS Program Coordinators, or Mr. Mike Malesich, Chairman of the ATS Framework IPT at (732) 323-4877.

Michael Malesich  
Chair, DoD ATS Framework IPT