



ATS EAO NOTICE 7

10 March 2015

From: Director, ATS Executive Directorate (ED)

Subj: DOD ATS OPEN SYSTEMS INTERFACES

1. This notice is issued to add IEEE standards associated with the Adapter Functional and Parametric Information (AFP), Instrument Functional and Parametric Information (IFP), Test Station Functional and Parametric Information (TSFP), Diagnostic Data (DIAD), Diagnostic Services (DIAS), System Framework (FRM), Maintenance Test Data and Services (MTDS), and Resource Adapter Information (RAI) elements. There are now a total of thirteen 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 1671 ATML standard to the System Framework (FRM) element.
3. This notice is also issued to remove the Computer to External Environments (CXE) element from this list, as it has been combined with the Data Networking (NET) element. The combined element will cover all network layers below the application layer.
4. This notice is also issued to update the Run Time Services (RTS) element to reflect a change in version of the IEEE Std. 1671 ATML Annex C from 2006 to 2010, as this standard has been revised.

Interface	Acronym	Specification(s)
Digital Test Format	DTF	IEEE Std 1445-1998 – IEEE 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-2010 Annex C
Adapter Functional and Parametric Information	AFP	IEEE Std. 1671.5 ATML: Test Adapter
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
Diagnostic Data	DIAD	IEEE Std. 1232-2010 Artificial Intelligence Exchange and Service Tie to All Test Environments (AI-ESTATE)
Diagnostic Services	DIAS	IEEE Std. 1232-2010 Artificial Intelligence Exchange and Service Tie to All Test Environments (AI-ESTATE)
Maintenance Test Data and Services	MTDS	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

* 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.

3. These above thirteen 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 Notice.

4. Questions may be addressed to Service ATS Program Coordinators, Mr. Chris Giggey, Assistant Director of the ATS ED at (703) 747-6907, or Mr. Mike Malesich, Chairman of the ATS Framework IPT at (732) 323-4877.