The Open Group Guide

AV-2: FACE™ Glossary of Terms and Definitions, Edition 3.3.3

THE Open GROUP

Prepared by The Open Group FACE Consortium Enterprise Architecture Standing Committee

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AV-2: FACE™ Glossary of Terms and Definitions, Edition 3.3.3

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Preface

The Open Group

The Open Group is a global consortium that enables the achievement of business objectives through technology standards. Our diverse membership of more than 800 organizations includes customers, systems and solutions suppliers, tools vendors, integrators, academics, and consultants across multiple industries.

The mission of The Open Group is to drive the creation of Boundaryless Information Flow™ achieved by:

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- Working with suppliers, consortia, and standards bodies to develop consensus and facilitate interoperability, to evolve and integrate specifications and open source technologies
- Offering a comprehensive set of services to enhance the operational efficiency of consortia
- Developing and operating the industry's premier certification service and encouraging procurement of certified products

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This Document

This document is the Future Airborne Capability Environment™ AV-2 (the FACE AV-2), an integrated dictionary for all definitions used in documents and work products developed by The Open Group FACE Consortium.

Trademarks

1 Introduction

The AV-2 is the authoritative single source for FACE™ definitions. Changes to the AV-2 are initiated by submitting a Change Request (CR). All CRs are managed using the FACE Problem Report/Change Request (PR/CR) process and are subject to approval by the appropriate Configuration Control Boards.

1.1 AV-2 Concept of Operations

- The FACE AV-2 document is based on terminology from the latest Editions/Versions of FACE documents
- Versioning will provide historical information for definitions in documents that have been superseded
- Major versions of the AV-2 document will correspond to each major Edition of the FACE Technical Standard
- All proposals for new and revised definitions will be submitted through the PR/CR process or during formal Steering Committee Review
- Document authors will consult the most recent AV-2 for all FACE definitions, prior to submitting their document into The Open Group publication process
- Should the authors choose to have a glossary of relevant terms in their work product, those terms must be drawn from the most recent AV-2
- The AV-2 version and "dot" revision used in creating a published document must be referenced within that published document

2 Document Abbreviations in Referenced Column

BG	Business Guide
CAP	Conformance Authorities Plan
CCG	Conformance Certification Guide
CG	Contract Guide
CP	Conformance Policy
GSG	Getting Started Guide
LAP	Library Administration Plan
LIP	Library Implementation Plan
LR	Library Requirements
Overview	FACE Overview
PR/CR	Problem Report/Change Request Process
RIG	Reference Implementation Guide for the FACE Technical Standard
SDMGP	Shared Data Model Governance Plan
TS	FACE Technical Standard
UDDL	Open Universal Domain Description Language (Open UDDL) Technical Standard

For more information, contact: ogface-admin@opengroup.org.

3 Terms and Definitions

Term	Definition	Referenced
Aircraft Platform	Represents an airframe that hosts mechanical, computing, and other resources necessary to perform a particular mission within the aviation domain.	CG
		RIG 2.0 RIG 3.0
Airworthiness Authority	The agency or entity responsible for flight safety and/or airworthiness with signatory authority for flight.	RIG 2.0 RIG 3.0
Application Characterization	A quantified description of the Unit of Portability for the purpose of facilitating integration without exposing the internal design of the deliverable.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Approved Correction	A solution, developed by the FACE Consortium and approved by the Steering Committee, for use in certification of a Unit of Conformance while a Problem Report exists.	CCG
		CP
		LR 3.0
		PR/CR
		RIG 3.0
Architecture	Fundamental concepts or properties of a system in its environment embodied in its elements, relationships, and in the principles of its design and evolution. See ISO/IEC/IEEE 42010.[1]	BG
		CAP CAP 1.0 CAP 1.2
		CCG
		CG
		GSG
		LIP

[1] ISO/IEC/IEEE 42010:2011: Systems and Software Engineering – Architecture Description; refer to: https://www.iso.org/standard/50508.html.

Term	Definition	Referenced
		LR
		Overview
		PR/CR
		RIG 2.0 RIG 2.1 RIG 3.0
		SDMGP
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
		UDDL
Business Working Group Configuration Control Board (BWG CCB)	The entity responsible for managing and approving changes to the FACE Conformance Program reference documentation, processes, and legal agreements.	CCG
		PR/CR
Centralized Configuration	A Software Component that manages the initialization parameters of the individual Software Components or Software Configuration Items.	RIG 2.0 RIG 3.0
		TS 3.0 TS 3.1
Certification Agreement	The agreement between the Software Supplier and the Certification Authority that defines the certification services to be provided.	CCG
		CP
		Overview
Certification Authority (CA)	The entity officially sanctioned to manage the day-to-day operations of the FACE Conformance Program in accordance with the policies defined in the FACE Conformance Policy.	CAP
		CCG
		CG
		CP
		LAP
		LR 3.0

Term	Definition	Referenced
		Overview
		RIG 3.0
Certification Authority Configuration Control Board (CA CCB)	The entity responsible for managing and approving changes to any documents or tools maintained by the Certification Authority and used in the process of FACE Conformance Certification. The members of the Certification Authority Configuration Control Board are designated by the Business Working Group Conformance Subcommittee and the Certification Authority.	PR/CR
Certification Repository	See Certification Retention Repository.	LIP
Certification Retention Repository	The Certification Authority must retain a copy of the files generated during certification for each product that initiates FACE Conformance Certification, as detailed in the FACE Conformance Policy and FACE Conformance Authorities Plan. A Certification Retention Repository is used to store these files. Access to this Repository is restricted to the Certification Authority and a designated auditor.	CP
		LAP
		LR 3.0
Change Request (CR)	A Change Request identifies either an issue with, or a desired improvement to, one or more FACE Consortium Products.	CG
		LR 3.0
		Overview
		PR/CR
		RIG 3.0
		SDMGP
Checkpoint Data	Data used for backup of the state of a Unit of Conformance to allow for redundancy and reversion.	TS 3.0 TS 3.1
Cohesion	A measure of the strength of association of elements within a Software Unit. It is a way of describing the degree to which a module achieves the objective of carrying out a single, well-defined purpose.	CG
Commercial Software	Software developed or regularly used for non-Government purposes which has been or is offered for sale, lease, or license to the public. See Defense Federal Acquisition Regulation Supplement: Rights in Technical Data and Validation of Proprietary Data Restrictions (DFARS) 252.227-7014(a)(1).	CG
		RIG 3.0
Common Operating Environment (COE)	A reference architecture and set of software standards enabling portability and interoperability of Software Components across disparate computing environments to allow for rapid capability insertion.	CG
		RIG 3.0

Term	Definition	Referenced
		TS 3.0 TS 3.1
Complex Software	Software for which a set of deterministic tests cannot be composed that verify all possible combinations of paths through the system. Detailed qualification guidance such as the Civil RTCA DO-178B/C[2] and associated publications acknowledge that the scope and intricacy of modern software is such that exhaustive testability is not possible.	RIG 2.0 RIG 3.0
Component Framework	A set of software deliverables providing a programming language-specific set of Application Programming Interfaces supporting programming in a component paradigm and often providing services which are useful to a wide range of Software Components.	Overview
		RIG 2.0 RIG 3.0
		TS 2.0 TS 2.1 TS 3.0 TS 3.1
Component State Persistence	A Portable Components Segment, Platform-Specific Services Segment, or Transport Services Segment Unit of Conformance internal state saved to a Data Store.	RIG 3.0
		TS 3.0 TS 3.1
Computer Software Configuration Item	See Software Configuration Item.	CG
		RIG 2.0
Computing Platform	The combination of hardware and operating system, network, and device drivers supporting Software Components. Typically refers to processing hardware within a Weapons Replaceable Assembly or Line Replaceable Unit, along with its associated software infrastructure.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Configuration	The selection of values or features of a component or system such that the intended operational characteristics are achieved.	CG
		LR 3.0

[2] Refer to: https://en.wikipedia.org/wiki/DO-178B and https://en.wikipedia.org/wiki/DO-178C.

Term	Definition	Referenced
		RIG 2.0 RIG 3.0
		SDMGP
		TS 1.1 TS 2.0 TS 2.1
Configuration Control Board (CCB)	See FACE Configuration Control Board.	Overview
		RIG 3.0
Configuration Item	An aggregation of hardware, software, or both that satisfies an end-use function and is designated for separate configuration management by the acquirer.	CG
		RIG 3.0
Conformance Certificate	See FACE Conformance Certificate.	CAP
		CG
		LAP
		LR 3.0
Conformance Requirements	The applicable requirements contained within the FACE Technical Standard.	CAP
		CCG
		CG
		Overview
		RIG 3.0
		SDMGP
Conformance Test Suite (CTS)	See FACE Conformance Test Suite.	CG
		Overview
		RIG 3.0
		SDMGP
Conformance Tools Configuration Control Board	The entity responsible for managing and approving changes to the FACE Conformance Test Suite.	CCG
		PR/CR

Term	Definition	Referenced
Conformance Verification Matrix (CVM)	Spreadsheet assigning verification methods and conformance evidence recommendations for each Conformance Requirement within the FACE Technical Standard.	CCG
		CG
		CP
		Overview
		RIG 3.0
		TS 3.0 TS 3.1
Conformant	See FACE Conformant.	CG
		LAP
		LIP
		LR 3.0
		Overview
		RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
		UDDL
Corrigendum	A correction to a document that fixes errors discovered after the document has been published. Any corrigendum published against a FACE document will result in versioning of the associated document to the next minor .x edition, not to a new edition. Corrigenda and the associated FACE document will not be referenced for conformance; only the resulting .x edition will be used for conformance.	CCG
		CP
		Overview
Coupling	Coupling is a measure of the degree to which each module relies on each one of the other modules.	CG
		RIG 2.0 RIG 3.0

Term	Definition	Referenced
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Data Architecture	A set of related models, specifications, and governance policies with the primary purpose of providing an unambiguous description of exchanged data and an interoperable means of data exchange.	CG
		RIG 3.0
		SDMGP
		TS 3.0 TS 3.1
		UDDL
Data Model	An abstraction that describes real-world elements, their properties, and their relationships in order to establish a common understanding for communication between components.	CG
		Overview
		RIG 3.0
		SDMGP
		UDDL
Data Model Language	A language specified as an Essential Meta Object Facility (EMOF) metamodel and Object Constraint Language (OCL) constraints used to capture data element syntax and semantics.	RIG 3.0
		SDMGP
		TS 2.1 TS 3.0 TS 3.1
		UDDL
Data Store	Any persistent storage medium (e.g., file system, flash, NOVRAM, solid state media, etc.).	RIG 3.0
		TS 3.0 TS 3.1
		UDDL
Dead Code	Executable binary code that does not trace to software requirements or test cases. This may include residual code from other applications of a source code module, extraneous compiler/linker-generated binary, diagnostic or maintenance code used by developers or field personnel, and any other executable that is not engineered as part of the system and properly documented.	RIG 2.0 RIG 3.0

Term	Definition	Referenced
Device Driver	A Software Component that controls a device and sometimes reformats data for transfer to and from the device.	Overview
		RIG 3.0
		TS 3.0 TS 3.1
Discovery	A static or dynamic method, process, or mechanism of locating a software module or Software Component. Discovery may take place during any of the phases of software generation, including but not limited to source code generation, compile, link, run-time, or execution.	TS 3.0 TS 3.1
Domain Interoperability Working Group Configuration Control Board (DIOG CCB)	The entity responsible for managing and approving changes to the Shared Data Model Governance Plan and other products produced by the Domain Interoperability Working Group and its subcommittees.	PR/CR
Domain-Specific Data Model (DSDM)	A Data Model designed to the FACE Data Architecture requirements. It captures domain-specific semantics.	CG
		CP
		RIG 3.0
		SDMGP
		TS 3.0 TS 3.1
Dynamic Personalization	Occurs when the software and hardware settings are adjusted for a specific user during run-time.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Enterprise Architecture Configuration Control Board (EA CCB)	The entity responsible for managing and approving changes to documents produced by the Enterprise Architecture Standing Committee.	PR/CR
FACE Architectural Segments	There are five (5) logical segments in the FACE Reference Architecture: 1. Portable Components Segment (PCS)	CG
		Overview

Term	Definition	Referenced
	2. Transport Services Segment (TSS) 3. Platform-Specific Services Segment (PSSS) 4. Operating System Segment (OSS) 5. Input/Output Services Segment (IOSS) FACE Architectural Segments are connected by three (3) FACE standardized interfaces, *aka* as "key" interfaces per a Modular Open Systems Approach (MOSA).	TS 3.1
FACE Certified Unit of Conformance	A Unit of Conformance that has successfully completed the FACE Conformance Program. The Software Supplier has accepted the Certification Agreement, and has received the Conformance Certificate from the Certification Authority.	CCG
		CP
		Overview
		TS 3.1
FACE Computing Environment	A generic concept instantiated for a particular system under development. It includes all elements of the FACE Reference Architecture necessary to deploy FACE Conformant components. The FACE Computing Environment is composed of the software infrastructure (Transport Services, Operating System, and I/O Services Segments), the Platform-Specific Services Segment required by the FACE components.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
FACE Configuration Control Board	The entity that reviews the work of the Product Configuration Control Boards to ensure the impact of changes recommended and/or implemented takes into account all of the products of the FACE Consortium. The FACE Configuration Control Board assesses proposals for corrections and reviews the corrections after they are implemented.	CCG
		PR/CR
		RIG 3.0
FACE Conformance Certificate	A document issued to a Software Supplier formally declaring that a Unit of Conformance, any associated conformant variants, and/or Unit of Conformance Package has successfully met the requirements for certification.	CAP
		CCG
		CG
		CP
		LAP
		LR 3.0
		Overview

Term	Definition	Referenced
		TS 3.0 TS 3.1
FACE Conformance Certification	Provides formal recognition of conformance to the FACE Technical Standard.	CG
		LAP
		LIP
		LR 3.0
		Overview
FACE Conformance Certification Guide	The document that describes the processes for how a Software Supplier achieves FACE Conformance Certification for a Unit of Conformance. The Guide is used in conjunction with the FACE Conformance Policy. The Guide provides detailed instructions on the steps a Software Supplier must take to get a Unit of Conformance certified and where to obtain relevant information and documents.	CCG
		CG
		CP
		LAP
		Overview
FACE Conformance Policy	The document that defines the processes and policies that govern the FACE Conformance Program including the conformance verification and certification processes.	CG
		CP
		LAP
		LIP
		LR 3.0
		Overview
		RIG 3.0
FACE Conformance Test Suite	A test suite that will accept the Unit of Conformance and produce a pass/fail or “inspection required” with respect to all Conformance Requirements covered by the test suite plus a detailed report of the test results.	CCG
		CG
		CP
		RIG 3.0
		SDMGP
		TS 3.0 TS 3.1

Term	Definition	Referenced
FACE Conformant	Unit(s) of Conformance that have been certified as adhering to the requirements of a specific edition of the FACE Technical Standard, for the applicable FACE Profile(s) and FACE Segment.	CG
		LAP
		LIP
		LR 3.0
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 2.0 TS 2.1
FACE Consortium Product	A document, tool, or website maintained or approved by the FACE Consortium.	LR 3.0
		Overview
		PR/CR
FACE Contract Guide	The document that serves as a reference for including FACE requirements into a solicitation or proposal.	CG
		Overview
FACE Infrastructure	An implementation of a FACE Operating System Segment, I/O Services Segment, and Transport Services Segment that is capable of hosting Portable Components Segment and Platform-Specific Services Segment Software Components that are aligned to the FACE Technical Standard. Note: Portable Components Segment and Platform-Specific Services Segment components are not required to have a FACE Conformant "stamp" in order to be integrated.	CCG
		CG
		RIG 2.0
		TS 3.0 TS 3.1
FACE Interfaces	Standardized interfaces providing connections between Software Components of the FACE Segments.	BG
		CCG
		CG
		RIG 2.0 RIG 3.0

Term	Definition	Referenced
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
FACE Library	The infrastructure developed to enable the discovery and acquisition of FACE Certified Units of Conformance.	CAP
		CCG
		CG
		CP
		LAP
		LIP
		LR 3.0
		Overview
FACE Product Configuration Control Board	One of the entities that will evaluate and resolve a Problem Report, depending on the type of problem reported. The Product Configuration Control Board will submit the proposal for an Approved Correction to the FACE Configuration Control Board.	CCG
		PR/CR
FACE Reference Architecture	A reference architecture that guides and constrains the development of FACE Units of Conformance based on the Architectural Segments, key interfaces between the Architectural Segments, Programming Language Mappings, and the Operating System Profiles as specified in the FACE Technical Standard.	CG
		Overview
		RIG 3.0
		SDMGP
		TS 1.x TS 2.x TS 3.0 TS 3.1
FACE Registry	The single online reference point for listing and managing all FACE Certified Units of Conformance. As the gateway to discovering certified products, it will include descriptions and locations of available FACE Conformant products and the publishable standard licensing terms for each product.	CAP
		CCG
		CG
		CP

Term	Definition	Referenced
		LAP
		LIP
		LR 3.0
		Overview
		RIG 3.0
		TS 2.1 TS 3.0 TS 3.1
FACE Repository	A storage component of the FACE Library for software, models, interfaces, documents, source code, and other artifacts associated with portable software that are certified to be FACE Conformant. The types of repositories include: FACE Reference Repository, FACE Product Repositories, FACE Certification Retention Repository and Verification Retention Repositories, and a FACE Shared Data Model Reference Repository.	CG
		LAP
		LIP
		LR 3.0
		Overview
		RIG 3.0
FACE Technical Standard	An open, royalty-free standard that addresses the software technical requirements of the FACE Reference Architecture, interfaces, and software.	CAP
		CG
		LAP
		LIP
		LR 3.0
		Overview
		RIG 3.0
		SDMGP
		UDDL
FACE Triage Group (FTG)	The entity that performs an initial review of all Problem Reports and performs the initial routing to one of several Product Configuration Control Boards for further investigation.	CCG
		PR/CR

Term	Definition	Referenced
		RIG 2.0 RIG 3.0
		TS 3.0 TS 3.1
Framework Component	The domain-specific software that is executed within the framework.	RIG 2.0
		TS 3.0 TS 3.1
Framework Container	The Software Component that provides the single point of presence for the framework interfaces to the framework Software Component as a run-time execution environment.	TS 3.0 TS 3.1
I/O Device	Refers to the hardware chipset which provides access to a bus, network, or I/O network (e.g., Serial, Fiber, Ethernet, MIL-STD-1553, ARINC 429, Discretes, Analogs).	RIG 3.0
		TS 3.0
I/O Service	A collection of Software Components that provides a unified view of an IO Interface to all Platform-Specific Services Segment Software Components using that interface.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 3.0 TS 3.1
I/O Services Segment (IOSS)	A segment where normalization of vendor-supplied interface hardware device drivers occurs.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Level of Rigor	The level to which an increasingly stringent set of qualification requirements are imposed on a software system, based on evaluation of the safety and/or operational implications of loss or failure of functionality provided by the software.	RIG 2.0 RIG 3.0

Term	Definition	Referenced
Library Administrator (LA)	The entity or organization that is responsible for the day-to-day operations of the FACE Library.	CP
		LAP
		LR 3.0
		Overview
Library Tools Configuration Control Board	The entity responsible for managing and approving changes to the FACE Registry, Landing Page, and FACE Conformance workflow tool as well as other tools developed and/or maintained by the FACE Library Administrator. The Library Tools Configuration Control Board is comprised of members of the Business Working Group Library Subcommittee as well as members from the FACE Library Administrator.	PR/CR
Logical Ports	The path over which data is moved between the I/O Services Segment and the Platform-Specific Services Segment. This is in reference to system data addressability between Partitions or Computing Platforms.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Mission-Level Capabilities	Software adding high-level discernible value to the user's mission. An example is "situational awareness" which adds value to some missions. However, a bubble-sort is a supporting algorithm and while it may be a component of a mission capability, it is not the mission capability itself.	CG
		Overview
		RIG 2.0
		TS 1.0 TS 2.0 TS 2.1
Models	A description or specification of a system and its environment for some certain purpose, often presented as a combination of drawings and text using a modeling language or a natural language.	CG
		LR 3.0
		Overview
		RIG 3.0
		SDMGP
		UDDL
Modularity	The degree to which a system or software is composed of discrete software such that a change to a Software Unit has minimal impact on other software.	CG
		RIG 3.0

Term	Definition	Referenced
Modularization	The breaking down of software into discrete modules such that changes to one module have minimal impact on other modules.	CG
Monolithic Code Deliverable	A singular bundle of highly inter-dependent Software Components characterized by a lack of modularity or that any single change to the code has vast ramifications that are reviewed and tested.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Non-Commercial Software	Software that does not qualify as commercial (see Commercial Software). See DFARS 252.227-7014(a)(14).	CG
Open Standards	Widely accepted and supported standards set by recognized standards organizations. These standards support interoperability, portability, and scalability and are equally available to the public at no cost or with a moderate license fee, and are maintained by standards bodies that meet the requirements of OMB-A119.[3]	CG
		Overview
Operating System Segment (OSS)	A segment where foundational system services used by all other segments and vendor-supplied code reside.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Partition	An operating system allocation of Computing Platform and processor resources, including time and memory/address space, to a Software Component or portion of a Software Component.	CG
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1

[3] Office of Management and Budget (OMB): Circular No. A-119 – Federal Register (Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities).

Term	Definition	Referenced
Personalization	Configuration of software and hardware setting adjusted for a specific user prior to run-time; for example, a pilot changing the zoom on a screen, powering it off, and then powering it back up.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Platform	Refers to one of three related things with respect to the FACE Technical Standard: Device (comprised of sensors, Weapon Replaceable Assembly, and Line Replaceable Unit), Aircraft (to include one or more Computing Platforms), and Computing (comprised of electronic circuitry and software).	CG
		Overview
		RIG 3.0
		SDMGP
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
		UDDL
Platform-Specific Common Services	A sub-segment comprised of higher-level services including Logging Services, Centralized Configuration Services, DPM Services, Streaming Media, and System-Level Health Monitoring and Fault Management (HMFM).	RIG 3.0
		SDMGP
		TS 3.0 TS 3.1
Platform-Specific Device Services	A sub-segment where management of data and translation between platform-unique Interface Control Documents (ICDs) and the FACE Data Model occurs.	RIG 3.0
		TS 3.0 TS 3.1
Platform-Specific Graphics Services	A sub-segment that abstracts the interface specifics of a graphics device driver from Software Components within the FACE Reference Architecture.	RIG 3.0
		TS 3.0 TS 3.1
Platform-Specific Services Segment (PSSS)	A segment comprised of sub-segments including Platform-Specific Common Services, Platform-Specific Device Services, and Platform-Specific Graphics Services.	CG
		Overview
		RIG 2.0 RIG 3.0
		SDMGP

Term	Definition	Referenced
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Portability	The ability to move existing software elements from one environment (physical or computing) to another. More specifically, the ease with which Unit of Conformance source code can be transferred and reused from one instance of a software computing environment to another.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Portable Components Segment (PCS)	A segment where Software Components providing capabilities and/or business logic reside.	CG
		Overview
		RIG 2.0 RIG 3.0
		SDMGP
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
POSIX™ Partition	A partition that uses the POSIX Application Programming Interface.	RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Primitive Marshalling	Specific Data Marshalling functions for each FACE Data Model primitive type (e.g., short, long, float, etc.) made available by a Transport Protocol Module for Transport Services Segment message serialization functions to use.	RIG 3.0
		TS 3.0 TS 3.1

Term	Definition	Referenced
Private Data	Data that is used only locally by a Software Component. Private Data is isolated to a Software Component and does not traverse Software Component boundaries. Private Data does not represent the internal state of a Software Component, but rather represents derived data able to be cached externally for performance or other implementation reasons. See Checkpoint Data.	TS 3.0 TS 3.1
Problem Report (PR)	Identifies an issue with FACE Consortium Products that prevents a Unit of Conformance developed to the intent of a particular Edition of the FACE Technical Standard from obtaining a Conformance Certificate.	CP
		LR 3.0
		Overview
		PR/CR
		RIG 3.0
		SDMGP
Programming Language Run-time	A set of software deliverables constituting a software layer that provides a software programming language Application Programming Interface and the capability to execute programs written to that Application Programming Interface.	Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Proprietary Software	Non-Commercial Software "developed exclusively at private expense" in accordance with DFARS 252.227-7014. Commercial Software and Non-Commercial Software that was not developed exclusively at private expense may be proprietary, it is excluded from the definition of "Proprietary Software" as used herein.	CG
Protocol Paradigm Translation	The transformations necessary to convert transport protocols from one transport protocol to another transport protocol (e.g., queuing ports to sockets, TCP to UDP).	TS 2.1 TS 3.0 TS 3.1
Publish/Subscribe	A message pattern in which a computing process does not require knowledge or presence of other computing processes in order to produce data for use by those other computing processes.	RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1

Term	Definition	Referenced
Qualification	Achievement of Qualification Objectives, as defined by the Airworthiness Authority.	RIG 2.0 RIG 3.0
Qualification Authority	See Airworthiness Authority.	RIG 2.0 RIG 3.0
Qualification Objectives	Specific activities required to establish the quality of a software development and its output.	RIG 2.0 RIG 3.0
Quality of Service (QoS)	A set of quality requirements for the collective behavior of one or more data exchange objects. Quality of Service comprises requirements for the attributes of a data exchange connection.	Overview
		RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Quality of Service (QoS) Attributes	Used to define Quality of Service policies. Considered a key, value pair, the attributes of a policy such as “Reliable Delivery” may have attributes of “kind” and “max_blocking_time”. Different policies can be created such as reliable, secure, or high bandwidth, etc. to align to requirements supported by the underlying transport technologies.	TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Reference Architecture	An authoritative source of information about a specific subject area that guides and constrains the instantiations of multiple architectures and solutions.	BG
		CAP 1.0
		CCG
		CG
		CP 2.0
		GSG 1.0
		Overview
		RIG 2.0 RIG 2.1
		SDMGP

Term	Definition	Referenced
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Reference Implementation Guide (RIG) for FACE Technical Standard	The FACE Reference Implementation Guide is to be used in conjunction with the FACE Technical Standard. It guides the developer through the thought process in determining how FACE Conformant products may be instantiated in a manner that is conformant to the FACE Technical Standard.	CG
		Overview
		RIG 2.0 RIG 3.0
Request/Reply	Also known as Request/Response, a message exchange pattern in which a requestor sends a request message to a replier system which receives and processes the request, ultimately returning a message in reply.	RIG 3.0
		TS 2.1 TS 3.0 TS 3.1
Reusable Test Harness	All test scripts and simulations utilized by test procedures in the software test description. The scripts and simulations should be developed using platform-independent means whenever possible.	CG
Reuse	The ability for source code, components, or modules to be used again to add new functionalities with slight or no modification.	CG
		Overview
		RIG 3.0
		SDMGP
		TS 2.0 TS 2.1 TS 3.0 TS 3.1
		UDDL
Run-time Application	A software program that is only functioning and operational once a Computing Platform has completed the start-up sequence and is now ready for normal run-time operations.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1

Term	Definition	Referenced
Safety-critical	A term applied to a condition, event, operation, process, or item whose mishap severity consequence is either Catastrophic or Critical (e.g., safety-critical function, safety-critical path, and safety-critical component).	RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Safety-related Software	Safety-related Software Components are those for which a safety analysis has determined that a high level of criticality exists, requiring achievement of qualification tasks and documentation of development practices consistent with a high level of rigor.	Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Security Transformation	Transformation of data to meet system-level security controls.	RIG 3.0
		TS 3.0 TS 3.1
Security Transformation Boundary	A boundary between a Software Component's function and the Security Transformation algorithm. This boundary may exist at a FACE Interface, or internal to a Unit of Conformance that contains its own Security Transformation.	TS 3.0
Service	A software utility providing capability to Software Components or other Services.	CG
		Overview
		RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Shared Data Model (SDM)	An instance of a Data Model whose purpose is to define commonly used items and to serve as a basis for all other Data Models. Alignment with the required elements in the Shared Data Model is necessary for conformance of any other Data Model. The Shared Data Model is governed by a Configuration Control Board.	CG
		LAP
		Overview

Term	Definition	Referenced
		RIG 2.0 RIG 3.0
		SDMGP
		TS 2.0 TS 2.1 TS 3.0 TS 3.1
Shared Data Model Configuration Control Board (SDM CCB)	The entity responsible for managing and approving changes to the Shared Data Model.	CG
		Overview
		PR/CR
		SDMGP
Single Instance Messaging	A messaging technique used to eliminate message data duplication and to increase message transport efficiency.	RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Software Artifact	Any piece of software or reference to software or software documentation (e.g., models, descriptions, reports, analyses) developed and used during software development and maintenance. Examples are requirements specifications, architecture and design models, source and executable code (programs), configuration directives, test data, test scripts, process models, project plans, various documentation, etc.	CG
Software Capability	A set of software deliverables that provides one or more mission-level facilities to the existing functionality of the current software suite.	CG
		LR 2.2
		Overview
		RIG 2.0
Software Component	A functionally or logically distinct part of a system, distinguished for the purpose of convenience in designing and specifying a complex system as an assembly of subordinate elements.	CG
		Overview

Term	Definition	Referenced
	See ISO/IEC/IEEE 24765.[4]	RIG 2.0 RIG 3.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
		UDDL
Software Configuration Item	An aggregation of software designated for configuration management and treated as a single entity in the configuration management process (ISO/IEC/IEEE 24765). This entity satisfies an end-use function and can be uniquely identified at a given reference point (ISO/IEC 12207:2008[5] §4.7).	CG
		RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Software Product	See Software Product Set.	CG
		LAP
		RIG 3.0
Software Product Set	The set of deliverables provided by the Software Supplier to the Verification Authority in order to execute the FACE Conformance Test Suite on a Unit of Conformance.	CCG
		CP
Software Supplier	A vendor who is interested in, is applying for certification in, or has certified a Unit of Conformance in the FACE Conformance Program.	BG 1.1
		CAP
		CCG
		CG
		CP
		LAP

[4] ISO/IEC/IEEE 24765:2017: Systems and Software Engineering – Vocabulary; refer to: https://www.iso.org/standard/71952.html.
[5] ISO/IEC 12207:2008: Systems and Software Engineering – Software Life Cycle Processes; refer to: https://www.iso.org/standard/43447.html.

Term	Definition	Referenced
		LIP
		LR 3.0
		Overview
		RIG 3.0
		SDMGP
Software Supplier's Statement of Conformance	The Software Supplier's documented set of claims describing precisely the way in which the Unit of Conformance and/or Unit of Conformance Package meets the Conformance Requirements, including which conditional requirements are supported. It provides a precise identification of the FACE Certified Unit of Conformance and/or Unit of Conformance Package and the environment in which conformance is guaranteed.	CP
		LR 3.0
Software Unit	An element in the design of a Computer Software Configuration Item; for example, a major subdivision of a Computer Software Configuration Item, a component of that subdivision, a class, object, module, function, routine, or database. Software Units may occur at different levels of a hierarchy and may consist of other Software Units (MIL-STD-498).[6] From a FACE standpoint, one or more Software Units can make up a Unit of Conformance, which can be combined with one or more Units of Conformance, and/or conventional (not adhering to the FACE Technical Standard) Software Units, to create a Computer Software Configuration Item.	CG
Software Verification Package	A package consisting of the Verification Agreement, Software Product Set, Verification Evidence (when required), and the Software Supplier's Statement of Conformance.	CCG
		CP
Space Partitioning	An allocation of Computing Platform and processor resources to achieve memory/address separation of Software Components.	RIG 3.0
		TS 3.0
Statement of Verification	A statement completed by the Verification Authority indicating that a Unit of Conformance has successfully completed the FACE conformance verification process.	CAP
		CCG
		CP
Steering Committee	The governing body of the FACE Consortium. The FACE Consortium Steering Committee directs all activities of the FACE Consortium, including approval to submit all Consortium work products to The Open Group for official publication, creating new working groups and approving their charters, and defining and approving roles and	CAP
		CCG
		CG

[6] Refer to: https://en.wikipedia.org/wiki/MIL-STD-498.

Term	Definition	Referenced
	responsibilities of the FACE Advisory Board.	CP
		LAP
		LIP
		LR 3.0
		Overview
		SDMGP
Technical Data Package	A consolidation of information used by designers and manufacturers describing a Software Component. A collection of all the information needed to integrate and deploy a specific Software Component or Unit of Conformance.	RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1
Technical Working Group Configuration Control Board (TWG CCB)	The entity responsible for managing and approving changes to the FACE Technical Standard.	CCG
		PR/CR
The Open Group Configuration Control Board	The entity responsible for managing and approving changes to the documents, tools, or products maintained by The Open Group for use by the FACE Consortium. The Open Group representative serves as The Open Group Configuration Control Board.	PR/CR
Ticket	A record entered into the FACE Problem Report/Change Request process and tracked by the process and its tools. A Ticket may reflect a Problem Report, a Change Request, or both.	PR/CR
Time Partitioning	An allocation of Computing Platform and processor resources to achieve temporal separation of Software Components.	RIG 3.0
		TS 3.0 TS 3.1
Transformation Map Unique Identifier (UID)	A unique identifier associated with each Conversion Map instance.	TS 1.0 TS 2.1 TS 3.0
Transport Services (TS)	Services that abstract transport mechanisms and data access from Software Components, facilitating integration into disparate architectures and platforms using different transports.	RIG 3.0
		TS 3.0 TS 3.1
Transport Services Segment (TSS)	A segment which abstracts transport mechanisms and data access from Software Components facilitating integration into disparate architectures and platforms using different transports.	CG
		Overview

Term	Definition	Referenced
		RIG 2.0 RIG 3.0
		SDMGP
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0 TS 3.1
Transport Services (TS) Domains	All of the Units of Conformance that constitute a system utilizing a single implementation of Transport Services Segment Units of Conformance and integrated by the same integrator.	RIG 3.0
		TS 3.0 TS 3.1
TS to TS Interoperability	The ability to exchange and use information between Transport Services Domains without re-engineering the Transport Services Segment Units of Conformance in either Transport Services Segment Domain. Configuration and/or access to additional Transport Services Segment capabilities may be required.	TS 3.0 TS 3.1
Unit of Conformance (UoC)	A Software Component or Domain-Specific Data Model designed to meet the applicable requirements defined in the FACE Technical Standard. It is referenced as a UoC at any point in its development, and becomes a FACE Certified UoC upon completion of FACE Conformance Certification.	CAP
		CCG
		CG
		CP
		LAP
		LR 3.0
		Overview
		PR/CR
		RIG 2.0 RIG 3.0
		SDMGP
		TS 2.1 TS 3.0 TS 3.1

Term	Definition	Referenced
Unit of Conformance Package	A collection of Units of Conformance combined to create a singular software logical entity which may be placed in the FACE Registry. The Units of Conformance that make up a Unit of Conformance Package may be from different FACE Segments.	CCG
		CG
		CP
		LR 3.0
		Overview
		TS 2.1 TS 3.0 TS 3.1
Unit of Conformance Variant(s)	Versions of a Unit of Conformance generated to a specific set of functionality and target environment from the same Unit of Conformance source code. Unit of Conformance Variants which conform to the FACE Technical Standard may be certified and listed together on a single Conformance Certificate.	CCG
		CP
Unit of Portability (UoP)	A Unit of Conformance that resides within the Portable Components Segment or Platform-Specific Services Segment.	CCG
		CG
		CP
		Overview
		RIG 2.0 RIG 3.0
		SDMGP
		TS 3.0 TS 3.1
UoP Supplied Model (USM)	A Data Model provided by a Software Supplier that documents the data exchanged by a Unit of Conformance via the Transport Services Interface.	CG
		Overview
		RIG 3.0
		SDMGP
		TS 2.1 TS 3.0 TS 3.1

Term	Definition	Referenced
Verification Agreement	The agreement established between the Software Supplier and an approved Verification Authority. This agreement defines the conformance verification services to be provided by the selected Verification Authority and the commitment by the Software Supplier to provide the required Verification Evidence and Software Product Set.	CCG
		CP
Verification Authority (VA)	An entity officially sanctioned by the Steering Committee to conduct or witness For-the-Record Verification Testing using an approved version of the Conformance Test Suite and assess the Verification Evidence provided by the Software Supplier in support of the FACE Conformance Program. The Verification Authority may be an independent third-party entity or a designated internal, independent entity of the Software Supplier.	CAP
		CCG
		CG
		CP
		LAP
		LR 3.0
		Overview
		RIG 3.0
		SDMGP
		TS 3.0 TS 3.1
Verification Evidence	Documentation required by a Verification Authority from a Software Supplier that details how the FACE Technical Standard requirements have been satisfied.	CAP
		CCG
		CG
		CP
		Overview
		RIG 2.0 RIG 3.0
		TS 3.0 TS 3.1
Verification Retention Repositories	The Verification Authority must retain a copy of the Software Verification Package and the Verification Results Package for each product that initiates verification, as detailed in the FACE Conformance Policy and the FACE Conformance Authorities Plan. A Verification Retention Repository is used to store these files. Access to the Repository is	CG
		CP
		LAP

Term	Definition	Referenced
	restricted to the associated Verification Authority and a designated auditor. These repositories are expected to reside at the Verification Authority site and be physically separated from the FACE Library construct. Each Verification Authority maintains its own Verification Retention Repository.	LIP
		LR 3.0
Verification Statement	See Statement of Verification.	LR 3.0

A Legacy Terms

Legacy terms are terms that are still in use in older versions of FACE documents that are no longer in the latest versions of the documents.

Term	Definition	Referenced
Airworthiness Release	A Release for the DoD aircraft into which FACE Software Components are integrated. Disposition of Airworthiness is based on engineering cognizance and documented evidence of qualification, resulting in Airworthiness Certification or Flight Release in some form. For purposes of the FACE Reference Implementation Guide, certification refers to this subject, rather than to certification of FACE Conformance.	RIG 2.0 RIG 2.1
Board Support Package	Operating system-specific implementation support code for a given device.	TS 3.0
Chip Support Package	Operating system-specific implementation support code for a given chip.	TS 2.0 TS 2.1
Data Marshalling	The process of transforming the representation of a data message structure to a format suitable for storage, transmission, or consumption by the destination.	TS 2.1 TS 3.0
Data Transformation	Conversion and data mapping of the source data structure(s) to the message's data structure(s) that can be understood by the destinations.	TS 3.0
Deliverable	Any item delivered under a contract, whether it is a physical product or item of data.	CG (text only)
		TS 2.0 TS 2.1
Destination Message Definition Universally Unique Identifier (UUID)	A reference to a specific platform view of the UoP Supplied Model. The platform view defines the structure of the destination message. The UoPDstEndPoint of the Integration Model associates the Data Model platform view as the destination message. The Destination Message Definition UUID is a reference to a specific Data Model platform view defining the structure of the destination message. The UoPDstEndPoint of the Integration Model associates the Data Model platform view as the destination message.	TS 3.0

Term	Definition	Referenced
Distributed Configuration	Distributed configuration of the initialization parameters is the responsibility of the individual Software Components or Software Configuration Items.	RIG 2.0 TS 1.0 TS 1.1 TS 2.0 TS 2.1
FACE Transport Infrastructure	Consists of the Transport Services Segment and the I/O Services Segment.	TS 2.0 TS 2.1
Integrity	The property that sensitive data has not been modified or deleted in an unauthorized and undetected manner.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Language Run-time	A set of software deliverables constituting a software layer which provides a software programming language Application Programming Interface and the capability to execute programs written to that Application Programming Interface.	RIG 2.0 TS 1.0 TS 1.1 TS 2.0 TS 2.1
Logical Data Model (LDM)	A Logical Data Model consists of entities, characteristics, and associations that realize their definition from the Conceptual Data Model. A Logical Data Model provides terms of measurement systems, coordinate systems, reference points, value domains, and units.	TS 2.0 TS 2.1
Message Association Unique Identifier (UID)	Uniquely identifies each instance of the Message Association entity.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Message Instance Unique Identifier (UID)	Uniquely identifies each instance of the Message Instance entity.	TS 2.1
Message Routing Name	A human-readable description of the message route. Each Message Routing Name is unique.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Message Routing Unique Identifier (UID)	Uniquely identifies each instance of the Message Routing entity.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Message Source Unique Identifier (UID)	A reference, through the unique identifier, to a source of Message Instances.	TS 1.0 TS 1.1 TS 2.0 TS 2.1

Term	Definition	Referenced
Message Timestamp	The timestamp describing when the message was written by the Software Component to the Message interface.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Message Unique Identifier (UID) *N*	References the Message Instance UID of the associated instance of a Message Instance entity, where *N* is the associated instance.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Model Transformation	The process of converting one model to another model of the same system; a model may not always require transformation.	Overview
Paradigm Translation	The transformations necessary to interface Software Components using different patterns with each other.	Overview
		TS 3.0
Process	In the context of an operating system, originates from the POSIX Standard (in ARINC 653, the term "process" is equivalent to the POSIX term "thread").[7]	CG
		RIG 2.0
		TS 1.0 TS 1.1 TS 2.0 TS 2.1 TS 3.0
Quality of Service (QoS) Attribute Values	The specific values of the QoS parameter which are defined by the QoS Definition entity as referenced by the QoS UID.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Quality of Service (QoS) Key	A unique name for the QoS property, capability, or feature. Examples of QoS Keys might be "Reliable Delivery" or "Priority".	TS 3.0
Quality of Service (QoS) Policy	A human-readable name of the policy represented by the QoS Attributes.	TS 3.0
Quality of Service Unique Identifier (QoS UID)	Uniquely identifies a QoS Policy.	TS 3.0
Route Configuration Data	Specifies the values for a particular transport path. Derived from the Integration Model TransportChannel (DM).	TS 3.0

[7] Refer to: https://en.wikipedia.org/wiki/ARINC_653.

Term	Definition	Referenced
Route Definition Unique Identifier (UID)	A reference to a specific Route instance that specifies a particular data transport path. The ViewTransporter (DM) of the Integration Model associates messages with routes. The Route Definition UID uniquely identifies each instance of routes.	TS 3.0
Safety Assessment	A rigorous analysis of the details of software functionality necessary to establish a level of design assurance (qualification level of rigor) applied to ensure safety and effective operation.	LR 3.0 RIG 2.0 TS 1.0 TS 1.1 TS 2.0 TS 2.1
Source Message Definition Universally Unique Identifier (UUID)	A reference to a specific platform view of the UoP Supplied Model. The platform view defines the structure of the message source. The UoPSrcEndPoint (DM) of the Integration Model associates the Data Model platform view as the source message. The Source Message Definition UUID is a reference to a specific UoP Supplied Model platform view defining the structure of the message source. The UoPSrcEndPoint of the Integration Model associates the UoP Supplied Model platform view as the source message.	TS 1.0 TS 1.1 TS 2.0 TS 2.1
Traditional Transport Middleware	A general description for a Software Component(s) that is responsible for transferring data between components and the operating system.	RIG 2.0 TS 1.0 TS 1.1 TS 2.0 TS 2.1
Transformation Type	Identifies whether the transformation is a ViewAggregation, ViewSplitter, ViewTransformation, or ViewFilter. Each Transformation Type has its own unique entry and is used by itself or in combination with any other transformations to match the destination’s Message definition.	TS 3.0
Transformation Universally Unique Identifier (UUID)	A unique identifier associated with the conversion instance used to change an instance of the Message parameter from one definition to another definition.	TS 1.0 TS 2.1
Unicast	Communication sent from a single source to a single destination.	TS 1.0 TS 1.1 TS 2.0 TS 2.1