



# CALS Related Acronyms and Abbreviations

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## 3

Acronym	Meaning
3M	Maintenance and Material Management System

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## A

Acronym	Meaning
A2LA	American Association for Laboratory Accreditation
ADPA	American Defense Preparedness Association
AEC	Architecture Engineering Construction
AECMA	Association Europeene des Constructeurs de Materiel Aerospatial
AFCEA	Armed Forces Communication Electronics Association
AFEMMIS	Air Force Equipment Management Information System
AFIMMIS	Air Force Information Maintenance Manufacturing Support System
AFIMS	Air Force Information Management System
AFLC	Air Force Logistics Command Program
AFNOR	French Standards Organization
AFSC	Air Force System Command
AFTOMS	Air Force Technical Order Management System
AIA	Aircraft Industries Association
AIM	Advanced Industrial Management
AIIM	Association for Information and Image Management
AIMT	Artificial Intelligence-Based Maintenance Tutor
ALADIN	Air Base Local Area Digital Network
ALC	Air Logistics Center
AMC	Army Material Command
AMIS	Automated Maintenance Information System
AMRC	American Manufacturing Research Consortium
AMS	Automated Maintenance System (C-5 Aircraft)
ANSI	American National Standards Institute (NY City)
AP	Acquisition Plan
AP	Application Protocol
APP	Application Portability Profile
APPS	Automated Publications Preparation System (Navy)
APT	Automatic Programming of Tools
ARPA	Advanced Research Projects Agency
ARPANET	Advanced Research Projects Agency Network

<b>ASC</b>	Accredited Standards Committee
<b>ASCII</b>	American Standard Code for Information Interchange
<b>ASIMS</b>	Air Staff Information Management System
<b>ASME</b>	American Society of Mechanical Engineers
<b>ASN(S&amp;L)</b>	Assistant Secretary of the Navy (Shipbuilding and Logistics)
<b>ATE</b>	Automated Test Equipment
<b>ATI</b>	Automation of Technical Information
<b>ATMS</b>	Automated Technical Manual System
<b>ATOS</b>	Automated Technical Ordering System (Air Force)
<b>ATTS</b>	Automated Test Technology Standards
<b>AVMI</b>	Automated Video Maintenance Information System

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## B

Acronym	Meaning
<b>BCL</b>	Binary Cutter Location
<b>BDA</b>	Business Domain Architecture
<b>BIT</b>	Built-In Test
<b>BITE</b>	Built-In Test Equipment
<b>BMP</b>	Best Manufacturing Practices
<b>BPI</b>	Bits Per Inch
<b>BSI</b>	British Standards Institute
<b>BSM</b>	Basic Sustainment Material

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## C

Acronym	Meaning
<b>C3I</b>	Command Control Communications & Intelligence
<b>C4</b>	CAD/CAE/CAM/CIM (GM Program)
<b>CAC</b>	Combat Analysis Capability
<b>CAC</b>	Contractor's Approach to CALS
<b>CAD</b>	Computer Aided Design
<b>CAD/CAM</b>	Computer-Aided Design and Computer-Aided Manufacturing
<b>CADA</b>	Computer-Assisted Data Acceptance
<b>CAD/CAE</b>	Computer-Aided Design and Computer-Aided Engineering
<b>CAE</b>	Computer-Aided Engineering
<b>CAEDOS</b>	Computer Aided Engineering and Documentation System (Navy)
<b>CAGE</b>	Commercial and Government Entity
<b>CALS</b>	Continuous Acquisition and Life-Cycle Support
<b>CALSIP</b>	CALS Implementation Plan
<b>CAM</b>	Computer Aided Manufacturing
<b>CAMS</b>	Core Automated Maintenance
<b>CAPP</b>	Computer Aided Production Planning
<b>CASREP</b>	Casualty Report
<b>CASS</b>	Consolidated Automated Support System (Air APC206)

<b>CAT</b>	Computer Aided Testing
<b>CAT</b>	Computer Aided Testing
<b>CAV</b>	Commercial Asset Visibility
<b>CAX</b>	Computer Aided Systems
<b>CBEMA</b>	Computer and Business Computer Manufacturers Association
<b>CCIA</b>	Computer & Communication Industry Association
<b>CCITT</b>	Consultative Committee on International Telegraphy and Telephony
<b>CCS</b>	Central Control System technical manual
<b>CCSS</b>	Commodity Command Standards System
<b>CD-ROM</b>	Compact Disc and Read Only Memory
<b>CDMS</b>	Contract Data Management System
<b>CDRL</b>	Contract Data Requirements List
<b>CDS</b>	Centralized Data System (F-16 Avionics)
<b>CDSO</b>	CALS Digital Standards Office
<b>CDIF</b>	Case Data Interchange Format
<b>CE/IPD</b>	Concurrent Engineering/Integrated Product Development
<b>CEIO</b>	CALS Evaluation & Integration Office
<b>CEN</b>	European Committee for Standardization
<b>CGM</b>	Computer Graphics Metafile (old name vdm)
<b>CIM</b>	Computer Integrated Manufacturing
<b>CIM</b>	Corporate Information Management
<b>CIRPLS</b>	Computer Integration of Requirements, Procurement, Logistics, and Support (UK)
<b>CIRS</b>	Combat Information Retrieval Service
<b>CITIS</b>	Contractor Integrated Technical Information System
<b>CITS</b>	Central Integrated Test System (B-1B)
<b>CLAMP</b>	Closed Loop Aeronautical Materials Program
<b>CLIP</b>	Configuration and Logistics Information Program
<b>CMAS</b>	Computer-Based Maintenance Aids System (Air Force)
<b>CMS</b>	Combat Maintenance System
<b>CNO</b>	Chief of Naval Operations
<b>COM</b>	Computer Output Microfilm
<b>CORBA</b>	Common Object Request Broker Architecture
<b>COSD</b>	CAD/CAM Operations Support Detachment
<b>C-REP</b>	Centralized Reprourement
<b>CSAM</b>	Combat System Alignment Manual
<b>CSA</b>	Canada Standards Association
<b>CSAS</b>	Comfiguration Status Accounting System
<b>CSTOM</b>	Combat System Technical Operations Manual
<b>CTC</b>	CALS Technology Center
<b>CTN</b>	CALS Test Network
<b>CV</b>	aircraft carrier

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## D

Acronym	Meaning
<b>DAGC</b>	Drawing and Graphics Committee

<b>DAISY</b>	Disposal Automated Information System
<b>DAP</b>	Document Application Profile
<b>DARMIS</b>	Data Requirements Management Information System
<b>DBMS</b>	Data Base Management System
<b>DCB</b>	Damage Control Book
<b>DCPS</b>	Data Communication Protocol Standards
<b>DDF</b>	Data Descriptive File
<b>DDN</b>	Defense Data Network
<b>DE</b>	Directory Entry Section of AN ANSI Y14.26M File
<b>DEC</b>	Digital Equipment Corporation
<b>DED</b>	Data Element Dictionary
<b>DGSC</b>	Defense General Supply Center
<b>DID</b>	Data Item Description
<b>DIDS</b>	Defense Integrated Data System
<b>DIF</b>	Document Interchange Format
<b>DIN</b>	German Institute Standardization
<b>DIS</b>	Draft International Standard
<b>DISA</b>	Data Interchange Standards Association
<b>DISA</b>	Defense Information System Agency
<b>DLA</b>	Defense Logistics Agency
<b>DLSC</b>	Defense Logistics Supply Center
<b>DLSC</b>	Defense Logistics Services Center
<b>DLSSO</b>	Defense Logistics Standard System Office
<b>DMCN</b>	Defense Mobile Communications Network
<b>DMMIS</b>	Depot Maintenance Management Information System
<b>DMRD</b>	Defense Management Review Decision
<b>DMS</b>	Deployed Maintenance System
<b>DMSSO</b>	Defense Material Specifications and Standards Office
<b>DNS</b>	Domain Name System
<b>DoC</b>	Department of Commerce
<b>DoD</b>	Department of Defense
<b>DoE</b>	Department of Energy
<b>DoDISS</b>	DoD Index of Specifications & Standards
<b>DONOACS</b>	Department of the Navy tech Office of Automation & Communications System
<b>DPSD</b>	Digital Publications Standard Development
<b>DRAW</b>	Direct Read After Write
<b>DRS</b>	Discrepancy Reporting System
<b>DSGG</b>	Defense Systems and Electronics Group
<b>DSREDS</b>	Digital Storage and Retrieval Engineering Data System (Army)
<b>DSS</b>	Deployed Supply System
<b>DSS</b>	Decision Support System
<b>DSSP</b>	Defense Standardization and Specification Program (defense materiel specification and standards office)
<b>DSSSL</b>	Document Style Semantics and Specification Language
<b>DTD</b>	Document Type Definition

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**E**

<b>Acronym</b>	<b>Meaning</b>
<b>EC</b>	Electronic Commerce
<b>ECMA</b>	European Computers Manufacturing Association
<b>ECSA</b>	Exchange Carrier Standards Association
<b>EDASRES</b>	Engineering Drawings Automated Storage & Retrieval System
<b>EDCARS</b>	Engineering Data Computer Assisted Retrieval System
<b>EDI</b>	Electronic Data Interchange
<b>EDIA</b>	Electronic Data Interchange Association
<b>EDIF</b>	Electronic Design Interchange Format
<b>EDMA</b>	Engineering Data Management Agency
<b>EDMICS</b>	Engineering Data Management Information and Control System (Navy)
<b>EDMP</b>	Engineering Drawing Management Program (NAVSEA)
<b>EDS</b>	Engine Diagnostic System
<b>EEMT</b>	Electronic Equipment Maintenance Training System
<b>EIA</b>	Electronic Industries Association
<b>EIDS</b>	Electronic Information Display System (Army)
<b>EMDB</b>	Equipment Maintenance Data Base
<b>ESP</b>	Experimental Solids Proposal
<b>ETADS</b>	Enhanced Transportaion Automated Data System
<b>EW</b>	Electronic Warfare

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**F**

<b>Acronym</b>	<b>Meaning</b>
<b>FCIM</b>	Flexible Computer Integrated Manufacturing
<b>FDDI</b>	Fiber Distributed Data Interface
<b>FEEDER</b>	MIDAS Follow-on
<b>FIND</b>	Fault Isolation by Nodal Dependence Troubleshooting System
<b>FIPS</b>	Federal Information Processing Standard
<b>FOSI</b>	Formatting Output Specification Instance
<b>FMECA</b>	Failure Modes, Effects, and Criticality Analysis
<b>FMPMIS</b>	Fleet Modernization Program Management Information System
<b>FOMMs</b>	Functionally Oriented Maintenance Manuals
<b>FOUO</b>	"For Official Use Only"
<b>FPI</b>	Fixed Price Initiative
<b>FRMA</b>	Functional Requirements Management Activity
<b>FRACA</b>	Failure Reporting And Corrective Action
<b>FSC</b>	Federal Supply Catalog
<b>FSCM</b>	Federal Supply Classification Manufacturer's identifier
<b>FSD</b>	Full-Scale Development
<b>FSED</b>	Full-Scale Engineering Development

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## G

Acronym	Meaning
<b>GCA</b>	the Graphic Communications Association (SGML authors)
<b>GCO</b>	Government Concept of Operations
<b>GDTs</b>	Graphics Display Terminals
<b>GENCODE</b>	Generalized Coding, Trademark of Graphics Comm. Association
<b>GENESYS</b>	Critical Component Generation System
<b>GIDEP</b>	Government /Industry Data Exchange Program
<b>GIMADS</b>	Generic Integrated Maintenance Diagnostic System
<b>GKS</b>	Graphic Kernel System
<b>GMAP</b>	Geometric Modeling Applications Interface Program
<b>GMLS</b>	Guided Missile Launching System
<b>GOSIP</b>	Government Open Systems Interconnect Protocol
<b>General Purpose Automated Maintenance System</b>	Graphics Display Terminals
<b>GPS</b>	Ground Processing System

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## H

Acronym	Meaning
<b>HDI</b>	Head-To-Disk Interface
<b>HM and E</b>	Hull, Mechanical, and Electrical
<b>HDI</b>	Head-To-Disk Interface
<b>HSC</b>	Hardware System Commands
<b>HYTIME</b>	Hypermedia Time Based Structuring Language

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## I

Acronym	Meaning
<b>IC</b>	Integrated Circuit
<b>ICAD</b>	Integrated Computer Aided Design
<b>ICAE</b>	Integrated Computer Aided Engineering
<b>ICAM</b>	Integrated Computer Aided Manufacturing
<b>ICASE</b>	Integrated Computer Aided Sustaining Engineering
<b>ICOM</b>	Inputs, Controls, Outputs, and Mechanics
<b>ICP</b>	Inventory Control Point
<b>IDAS</b>	Integrated Design Automation System
<b>IDD</b>	Information Delivery Device

<b>IDEF</b>	Integrated Computer Aided Manufacturing Definition
<b>IDS</b>	Instructional Systems Development
<b>IDSS</b>	Integrated Diagnostic Support System (Navy)
<b>IE</b>	Instrumental Engineering
<b>IEP</b>	International Electrotechnical Commission
<b>IEEE</b>	Institute of Electrical and Electronic Engineers
<b>IETM</b>	Interactive Electronic Technical Manual
<b>IGES</b>	Initial Graphics Exchange Specification
<b>IGPS</b>	Intelligent Gateway Processing System
<b>ILS</b>	Integrated Logistic Support
<b>ILSP</b>	Integrated Logistic Support Plans
<b>IMIS</b>	Integrated Maintenance Information System (Air Force)
<b>IOC</b>	Initial Operational Capability
<b>IOL</b>	Initial Outfitting List
<b>IPC</b>	Institute for Interconnecting and Packaging Electronic Circuits
<b>IPO</b>	IFES PDES Organization
<b>IPSC</b>	Information Processing Standards for Computers
<b>IRAM</b>	Improved Repairable Asset Management Program
<b>IRDS</b>	Information Resource Dictionary Specification
<b>ISA</b>	Information System Architecture
<b>ISDN</b>	Integrated Services Digital Network
<b>ISEA</b>	In-Service Engineering Agents
<b>ISG</b>	CALS Industry Steering Group
<b>ISITE</b>	Integrated Self-Instructive Test Equipment
<b>ISM</b>	Image Storage Modules
<b>ISO</b>	International Standards Organization
<b>ISSB</b>	Information Systems Standards Board
<b>IWSDB</b>	Integrated Weapon System Database

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## J

<b>Acronym</b>	<b>Meaning</b>
<b>JCAG</b>	Joint CITIS Advisory Group JCALS (Joint CALS)
<b>JCALs</b>	Joint CALS
<b>JCMO</b>	Joint CALS Management Office
<b>JCP</b>	Joint Committee on Printing
<b>JEDMICS</b>	Joint Engineering Data Management Information Control System
<b>JIT</b>	Just In Time
<b>JLSC</b>	Joint Logistics System Center
<b>JUSTIS</b>	Joint Uniformed Services Technical Information (was AFTOMS)

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## L

<b>Acronym</b>	<b>Meaning</b>
<b>LAN</b>	Local Area Network

<b>LC/IS</b>	Logistics Communications/Informatin Systems
<b>LDC</b>	Logistics Data Communications
<b>LDDI</b>	Local Distributed Data Interface
<b>LED</b>	Light Emitting Diode
<b>LEIDS</b>	Logistics Electronic Information Delivery System
<b>LFSMS</b>	Logistics Forces Structure Management System
<b>LIMISS</b>	Logistics Information Management Support System
<b>LIPS</b>	Logistics Information Processing System
<b>LOG-C31</b>	Logistics Command, Control, Communications and Intelligence
<b>LOGMARS</b>	Automated Marking and Reading Symbols Program
<b>LOGMOD</b>	Fault Isolation Aid
<b>LOGNET</b>	Logistics System Information Network
<b>LORA</b>	Level Of Repair Analysis
<b>LRU</b>	Line Replacement Unit
<b>LSA</b>	Logistic Support Analysis
<b>LSAR</b>	Logistic Support Analysis Record
<b>LSIN</b>	Logistics System Information Network

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## M

<b>Acronym</b>	<b>Meaning</b>
<b>M-SPECS</b>	Modular Specification System for Technical Manual Contract Requirements (TMCRS)
<b>MAISRC</b>	Major Automated Informatino System Review Council
<b>MAP</b>	Manufacturing Automotiers Protocol
<b>MARDIS</b>	Modern Army Research and Development Information System
<b>MCCR</b>	Mission Critical Computer Resources
<b>MDA</b>	Management Domain Architecture
<b>MDA</b>	Material Disposal Area
<b>MEDALS</b>	Military Engineering Drawing Allowance Locator System (DLA)
<b>MEDIS</b>	Modular Electronic Document Information System
<b>MEIDS</b>	Militarized/Miniatured Electronic Information Delivery System (Army)
<b>METCAL</b>	Metrology-Calibration program
<b>MIARS</b>	Maintenance Information Automated Retrieval System
<b>MICAP</b>	Mission Capability
<b>MIDAS</b>	Maintenance Information Data Automation System
<b>MLCAD</b>	Maintenance and Logistic Factors in CAD
<b>MMICS</b>	Maintenance Management Information Control System
<b>MODAS</b>	Maintenance and Operational Data Access System
<b>MT</b>	Manufacturing Technology Directorate
<b>MTBF</b>	Mean Time Between Failures
<b>MTC</b>	Manufacturing Technology Center
<b>MTTR</b>	Mean Time to Repair

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## N

Acronym	Meaning
<b>NALTOACS</b>	Navy Laboratories Technical Office Automation and Communications System (Navy)
<b>NAPLPS</b>	North American Presentation Level Protocol Syntax
<b>NAPS</b>	Navy Automated Publishing System
<b>NARF</b>	Navy Air Rework Facilities
<b>NATSF</b>	Naval Air Technical Services Facility
<b>NAVAIR</b>	Naval Air Systems Command
<b>NAVIS</b>	Navy Automated Video Information System
<b>NAVORSTA</b>	Naval Ordnance Station
<b>NAVSEA</b>	Naval Sea Systems Command
<b>NAVSUP</b>	Naval Supply System Command
<b>NC</b>	Numerical Control
<b>NCGA</b>	National Computer Graphics Association
<b>NCMS</b>	National Center for Manufacturing Sciences
<b>NDL</b>	Network Database Language
<b>NEDALS</b>	Naval Engineering Drawing Asset Locator System
<b>NEDDSARS</b>	Naval Engineering Drawings Digital Storage and Repository System
<b>NEDSAs</b>	Naval Engineering Drawing Support Activities
<b>NEOAP</b>	NAVSUP Experimental Office Automation Project (Navy)
<b>NESEC</b>	Naval Electronics Systems Engineering Center
<b>NIAG</b>	NATO Industry Advisory Group
<b>NIAM</b>	Nijessen Information Analysis Model (data model technique)
<b>NICADMM</b>	Navy Integrated Computer Aided Design Manufacturing and Maintenance Program
<b>NIIN</b>	National Item Identification Number
<b>NIPDE</b>	National Initiative for Product Data Exchange
<b>NIST</b>	National Institute of Standards and Technology
<b>NLR and D</b>	Navy Logistics Research and Development
<b>NOMAD</b>	Navy Onboard Maintenance Aided Device
<b>NPFC</b>	Navy Publications and Forms Center
<b>NPODS</b>	the Navy Print-on-Demand System
<b>NPPS</b>	Navy Publishing and Printing Service
<b>NPPSBO</b>	Navy Publications and Printing Service Branch Office
<b>NPPSO</b>	Navy Publications and Printing Service Office
<b>NSDSA</b>	Naval Sea Data Support Activity
<b>NSIA</b>	National Security Industrial Association
<b>NSTIS</b>	Navy Standard Technical Information System
<b>NSWSES</b>	Naval Ship Weapon Systems Engineering Station
<b>NTDS and R</b>	Navy Technical Documents, Storage and Retrieval
<b>NSTIS</b>	Navy Standard Technical Information System
<b>NTIPS</b>	Navy Technical Information Presentation System (Navy) O&S Operations and Support
<b>NTIS</b>	National Technical Information Service

## O

Acronym	Meaning
<b>OAS</b>	Office Automation Sytem
<b>OD</b>	Optical Digital Data Disk
<b>ODA</b>	Office Document Architecture (ISO)
<b>ODIF</b>	Office Document Interchange (ECMA)
<b>OPR</b>	Office of Primary Responsibility
<b>ODA</b>	Office Document Architecture (ISO)
<b>OSB</b>	Operational Stations Book
<b>OSD</b>	Office of Secretary of Defense
<b>OSI</b>	Open Systems Interconnection reference model
<b>OTA</b>	Office of Technology Assessment

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## P

Acronym	Meaning
<b>PA</b>	Preparing Authority
<b>PAL</b>	Publication Applicability Lists
<b>PC</b>	Printed Circuit
<b>PC</b>	Process Controller
<b>PCASS</b>	DLA Parts Control Automated Support System
<b>PCP</b>	DOD Parts Control Program
<b>PD</b>	Parameter Data of an ANSI Y14.26M File
<b>PDDI</b>	Product Definition Data Interface (Air Force)
<b>PDES</b>	Product Data Exchange Using STEP (was Product Data Exchange Specification)
<b>PDL</b>	Page Description Language
<b>PE</b>	Phase Encoded
<b>PE</b>	Professional Engineer
<b>PEAM</b>	Portable Electronic Aid for Maintenance (joint Army/Navy)
<b>PED</b>	Procurement Early Development (ICP/EDS Project)
<b>PEI</b>	Profile for Enterprise Integration
<b>PEP</b>	Paperless Environment Project
<b>PERA</b>	Planning & Engineering for Repair Activity
<b>PHIGS</b>	Programmer's Hierarchical Interface to Graphics Standard
<b>POSIX</b>	Portable Operating System Interface for Computer Environments
<b>PIPPS</b>	Publication Information Processing & Printing Standard
<b>PIXIE</b>	Portable Maintenance-Aid Device
<b>PLS AP</b>	Product Logistic Support Application Protocol
<b>PM</b>	Program Manager
<b>PMIG</b>	Programmer's Minimal Interface to Graphics
<b>PMIS</b>	Production Management Information System
<b>PMR</b>	Provisioning Master Record
<b>POB</b>	Propulsion Operating Guides
<b>PPI</b>	Pixels Per Inch

<b>PREMO</b>	Presentation Environment for Multimedia Objects
<b>PVA</b>	Process Validation Enterprise
<b>PWA</b>	Printed Wiring Assembly

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## Q

Acronym	Meaning
<b>QFD</b>	Quality Functional Development

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## R

Acronym	Meaning
<b>R and M</b>	Reliability and Maintainability
<b>RAMCAD</b>	Reliability and Maintainability CAD
<b>RAMP</b>	Rapid Acquisition of Manufactured Parts
<b>RAMP-NOW</b>	Rapid Acquisition of Manufactured Parts Navy Operational Workcell
<b>RAMS</b>	Repairable Assets Management System
<b>RD and ES</b>	Requirement Determination and Execution System
<b>RDAP</b>	Remote Data Access and Protocol
<b>RDB</b>	Requirements Data Bank
<b>RDT and E</b>	Research, Development, Test and Evaluation
<b>RF</b>	Reprographic Facilities
<b>RFP</b>	Request for Proposal
<b>RIP</b>	Readiness Improvement Program
<b>RM and S</b>	Reliability, Maintainability and Supportability
<b>ROLAIDS</b>	Reconfigurable On-Line ATE Information Distribution System
<b>ROM</b>	Read Only Memory
<b>RPGS</b>	RAMP PDES Generation Site
<b>RRM</b>	Rapid Response Manufacturing
<b>RTIF</b>	RAMP Test and Integration Facility

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## S

Acronym	Meaning
<b>SAE</b>	Society of Automotive Engineers
<b>SALSA</b>	Spares Acquisition and Logistics Support Analysis
<b>SC</b>	Subcommittee
<b>SCAE</b>	Society of Computer Aided Engineers
<b>SCDS</b>	Stock Control and Distribution System
<b>SCLSIS</b>	Ships Configuration and Logistic Support Information System
<b>SCPL</b>	System Configuration Provisioning List

<b>SCRA</b>	South Carolina Research Authority
<b>SDI</b>	Ships Drawing Index
<b>SE</b>	Support Equipment
<b>SEACOSD</b>	NAVSEA CAD/CAM Operation Support Detachment
<b>SEASTARS</b>	Satellite Engineering Assisted Shipboard Test an Repair System
<b>SECAS</b>	Ship Equipment Configuration Accounting System
<b>SGML</b>	Gen-Code or Standard Generalized Markup Language
<b>SHAP</b>	Ship Acquisition Plans
<b>SHARP</b>	Standard Hardware Acquisition and Reliability Program
<b>SHFS</b>	Stores Handling and Fueling-at-Sea
<b>SIB</b>	Ship Information Book
<b>SIMA</b>	Shore Intermediate Maintenance Activities
<b>SLEP</b>	Service Life Extension Program
<b>SLIC</b>	System and Logistic Integration Capability
<b>SMCB</b>	Submarine Material Certification Boundary book
<b>SME</b>	Society of Manufacturing Engineers
<b>SMP</b>	Small Manufactured Parts
<b>SNA</b>	System Network Architecture
<b>SNAME</b>	Ship, Nautical Marine Engineers
<b>SOLE</b>	Society of Logistics Engineers
<b>SOW</b>	Statement Of Work
<b>SP/LAN</b>	Supply Point/Local Area Network
<b>SPARES</b>	Spare Parts Production and Procurement Support
<b>SPAWAR</b>	Space and Naval Warfare Systems Command
<b>SPCC</b>	Spare Parts Control Center
<b>SPD</b>	Ship Project Directives
<b>SPDL</b>	Standard Page Description Language
<b>SPLICE</b>	Stock Point Logistics Integrated Communications Environment (Navy)
<b>SPRINT</b>	Sperry Interactive Graphic Maintenance Trainer
<b>SQL</b>	Standard Query Language (for database)
<b>SRA</b>	System Requirement Assembly
<b>SREM</b>	Software Requirements Evaluation Methodology
<b>SRL</b>	SGML Reuse Library
<b>STARS</b>	Shipboard Test and Repair System
<b>STEP</b>	Standard for The Exchange of Product model data
<b>STEPS</b>	Ships Technical Publication System
<b>STIP</b>	Scientific and Technical Information Program
<b>STR</b>	SGML Target Registry
<b>SUPSHIP</b>	Superintendent of Shipbuilding (oversee private yard)
<b>SWBS</b>	Ship Work Breakdwon Structure

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## T

Acronym	Meaning
<b>TAB</b>	Training Aid Booklet
<b>TC</b>	Technical Committee

<b>TCP/IP</b>	Transmission Control Protocol/Internet Protocol
<b>TD</b>	Technical Data
<b>TC/CMS</b>	Technical Data/Configuration Management System
<b>TDI</b>	Technical Data Interchange
<b>TDM</b>	Technical Data Management
<b>TDMS</b>	Technical Data Management System
<b>TDP</b>	Technical Data Package
<b>TDSS</b>	Technical Data Storage System
<b>TI</b>	Technical Information
<b>TI</b>	Technical Information Analysis Center
<b>TICCIT</b>	Time Shared Interactive Computer Controlled Information Television
<b>TIDER</b>	TI Deficiency Report
<b>TIDS</b>	Trident Integrated Data System
<b>TIMS</b>	Technical Information Management System
<b>TIPPS</b>	Total In House Publication Production System
<b>TM</b>	Technical Manual
<b>TMMP</b>	Technical Manual Management Program
<b>TMSS</b>	Technical Manuals Specifications and Standards
<b>TOES</b>	Telephone Order Entry System
<b>TOP</b>	Technical Office Protocol
<b>TPAS</b>	Technical Publication Automated System
<b>TPI</b>	Tracks Per Inch
<b>TQM</b>	Total Quality Management
<b>TRC/TOD</b>	Technical Repair CNeutral/Technical Order Distribution
<b>TRITAC</b>	Joint Tactical Communications Office
<b>TRS</b>	Technical/maintenance, overhaul, and Repair Standard
<b>TTO/ITO</b>	Tailored Technical Ordees/Integrated Technical Orders
<b>TYCOM</b>	Type Command

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## U

<b>Acronym</b>	<b>Meaning</b>
<b>UDBAL</b>	Unified Data Base for Acquisition Logistics
<b>UKCIC</b>	United Kingdom CALS Industry Council
<b>UL</b>	Underwriters Laboratory
<b>USPRO</b>	US Product Data Association
<b>USAPPC</b>	US Army Publications and Printing Command
<b>UTACC</b>	United Trade Association CALS Committee

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## V

<b>Acronym</b>	<b>Meaning</b>
<b>VDI</b>	Virtual Device Interface (old name for CGI)
<b>VDM</b>	Virtual Device Metafile (old name for CGM)
<b>VDTs</b>	Alpha/Numeric Terminals

<b>VHDL</b>	VHSIC Hardware Description Language
<b>VHSIC</b>	Very High Speed Integrated Circuit
<b>VIM</b>	Virtual Interconnected Management
<b>VIMAD</b>	Voice Interactive Maintenance Aiding Device

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## W

<b>Acronym</b>	<b>Meaning</b>
<b>WAN</b>	Wide Area Networks
<b>WBS</b>	Work Breakdown Structure
<b>WCAP</b>	Weapon Control Intrasystem and Intersystem Alignment Procedures Manual
<b>WORM</b>	Write Once Read Mostly (More)
<b>WRDC</b>	Wright Research and Development Center (Air Force)
<b>WSF</b>	Weapon Systems File
<b>WSHS</b>	Weapon System Handling and Storage manual
<b>WSIAO</b>	Weapon Support Improvement and Analysis Office
<b>WSIG</b>	Weapon Improvement Group
<b>WSMIS</b>	Weapon System Management Information System

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## Z

<b>Acronym</b>	<b>Meaning</b>
<b>ZOG</b>	Automated, Computerized Operational Management System VINSON Aboard the USS Carl Vinson (CVN 70) Since 3/83

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- **A.1 CALS ACRONYMS**
- **A.2 CALS DEFINITIONS**

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## **A.1 CALS ACRONYMS**

The following acronyms are used throughout this Handbook:

2-D	2-Dimensional
3-D	3-Dimensional
AAM	Application Activity Model
ADMAPS	Automated Document Management and Publishing System
ADP	Automated Data Processing
AECMA	Association Europeenne des Constructeurs de Material Aerospatale
AEG	Aerospace Electronics Group
AI	Artificial Intelligence
AIA	Aerospace Industries Association
AIM	1. Authoring Instructional Materials 2. Application Interpreted Model
ALPS	Automated Logistics Publishing System
AMSDL	Acquisition Management Systems and Data Requirements Control List
ANSI	American National Standard Institute
AP	1. Acquisition Plan 2. Application Protocol
APDE	Application Protocol Development Environment
APPS	Advanced Planning and Packaging Support
ASC	American Standards Committee
ASCII	American Standards Code for Information Interchange
ASIC	Application-Specific Integrated Circuits
ASME	American Society of Mechanical Engineers
ASO	Aviation Supply Office
ATA	Automatic Target Acquisition (system)
ATC	Abstract Test Cases
ATI	Automated Technical Information
ATIS	Advanced Technical Information Support
BBS	Bulletin Board System
BCL	Binary Cutter Location

BMP	Best Manufacturing Practices
CAC	Contractor's Approach to CALS
CAD	Computer-Aided Design
CADA	Computer-Assisted Data Acceptance
CAD	Computer-Aided Design
CAM	Computer-Aided Manufacturing
CAE	Computer-Aided Engineering
CAD2	Computer-Aided Design (Second Acquisition)
CALS	1. Continuous Acquisition and Life-cycle Support 2. Computer-aided Acquisition and Logistics Support
CALS RIC	CALS Resource and Implementation Cooperative
CALSIP	CALS Implementation Plan
CAM	Computer-Aided Manufacturing
CASE	Computer-Aided Software Engineering
Cax	Computer-Aided Systems
CCITT	Consultative Committee on International Telegraphy and Telephony
CD	Compact Disk
CD-ROM	Compact Disk - Read Only Memory
CDI	Compact Disk Interactive
CDM	Content Data Model
CDR	Critical Design Review
CDRL	Contract Data Requirements List
CDSO	CALS Digital Standards Office
CE	Concurrent Engineering
CED	Concept Exploration and Definition
CEIO	CALS Evaluation and Integration Office
CE / IPD	Concurrent Engineering / Integrated Product Development
CFA	Cognizant Field Activities
CFI	CAD Framework Initiative
CGM	Computer Graphics Metafile
CGM AP	Computer Graphics Metafile Application Profile
CIM	Corporate Information Management
CITIS	Contractor Integrated Technical Information Service
CIVR	Configuration Item Verification Review
CLIN	Contract Line Item Number
CLIP	Configuration and Logistics Information Program
CMA	Configuration Management Agent
CMIS	Configuration Management Information System

CMP	Configuration Management Plan
COTS	Commercial Off-The-Shelf
CPU	Central Processing Unit
CRC	Camera-Ready Copy
CSAR	Configuration Status Accounting Reports
CSRC	CALS Shared Resource Center
CTC	CALS Technology Center
CTN	CALS Test Network
CX	Command and Control, Communication, and Computers
ELIN	Exhibit Line Item Number
EMD	Engineering and Manufacturing Development
EPC	Electronic Publishing Committee
ETPS	Engineering Technical Publications System
FAX	Facsimile
FCIM	Flexible Computer Integrated Manufacturing
FCS	Finite Coordinate Space
FDL	Fault, Detection, and Localization
FDT	Formal Description Technique
FMECA	Failure Modes and Effects Criticality Analysis
FOD	Open Document Format
FODA	Formal Specifications of the ODA Standard
FOSI	Formatting Output Specification Instance
FPGA	Field-Programmable Gate Arrays
FRACA	Failure Reporting and Corrective Action
FRC	Final Reproducible Copy
G-byte	Gigabyte
GCA	Graphic Communication Association
GCO	Government Concept of Operations
GDD/D	Global Data Dictionary and Directory
GFI	Government-Furnished Information
GIDEP	Government-Industry Data Exchange Program
GOSIP	Government Open System Interconnection Profile
HW	Hardware
SW	Software
HyTime	Hypermedia Time-based Document Structuring Language
IAW	In Accordance With
IBM	International Business Machines

IC	Integrated Circuit
ICAM	Integrated Computer-Aided Manufacturing
IDEFIX	Integrated Computer-aided Manuf. (ICAM) DEFinition Method 1X
IDEF0	Integrated Computer-aided Manuf. (ICAM) DEFinition Method 0
IDS/LSAR	Instructional Systems Development / Logistics Support Analysis Record
IE	Instrument Engineering
IEEE	Institute of Electrical and Electronic Engineers
IETM	Interactive Electronic Technical Manual
IETM/PMA	Interactive Electronic Technical Manuals and Portable Maintenance Aids
IFD	Image File Directory
IGES	Initial Graphics Exchange Specification
IL	Index List
ILS	Integrated Logistics Support
ILSP	Integrated Logistics Support Plan
IMIS	Integrated Maintenance Information System
IMP	Infrastructure Modernization Programs
IPC	Institute for Interconnecting and Packaging Electronic Circuits
IPO	IGES / PDES Organization
IR&D	Independent Research and Development
IRDS	Information Resources Dictionary System
ISA	Information Systems Architecture
ISAC	Issues Screening and Analysis Committee
ISD	Instructional Systems Development
ISG	Industry Steering Group
ISO	International Standards Organization
ISP	International Standardization Profiles
ISR	Implementation Support Requirements
ISWG	Industry Standards Working Group
ITO	Instructions To Offers
IWSDB	Integrated Weapon Systems Database
JCAG	Joint CITIS Advisory Group
JCALC	Joint Computer-aided Acquisition and Logistic Support
JCMO	Joint CALS Management Office
JEDMICS	Joint Engineering Data Management Information and Control System
JIT	Just-In-Time
JLSC	Joint Logistics Systems Center
LAN	Local Area Network
LCC	Life Cost Cycle

LEP	Layered Electrical Products
LLTIL	Long Lead Time Items List
LOGPARS	LOGistics Planning And Requirements Simplification
LOGSA	LOGistics Support Activity
LORA	Level of Repair Analysis
LRU	Line Replacement Unit
LSA	Logistic Support Analysis
LSAP	Logical Support Analysis Plan
LSAR	Logistic Support Analysis Record
MACS	Mutually Agreeable Commercial Software
MDA	Material Disposal Area
MEARS	Multi-User ECP Automated Review System
MEDIS	Modular Electronic Document Information System
MIS	Management Information System
MPT	Manpower, Personnel, Training
MTC	Manufacturing Technology Center
NADC	Naval Air Development Center
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NC	Numerical Control
NCGA	National Computer Graphics Association
NCH	NATO CALS Handbook
NCO	NATO CALS Office
NCMB	NATO CALS Management Board
NCSL	NATO CALS SGML Library
NCSR	NATO CALS SGML Registrar
NCMS	National Center for Manufacturing Sciences
NCoO	NATO/Government CALS Concept of Operation
NDI	Non-Developmental Items
NFS	Network File System
NIAG	NATO Industrial Advisory Group
NIC	Network Interface Card
NICG	NATO Industry CALS Group
NII	National Information Infrastructure
NIPDE	National Initiative for Product Data Exchange
NIST	National Institute of Standards and Technology
NIUG	National IGES User Group

NSIA	National Security Industrial Association
O&S	Operation & Support
OCR	Optical Character Recognition
ODA	Open Document Architecture
ODIF	Office Document Interchange Format
ODL	Open Document Language
OIW	OSI Implementors Workshop
OS	Output Specification
OSD	Office of the Secretary of Defense
OSI	Open Systems Interconnection
OTA	Office of the Technology Assessment
OUSD	Office of the Under Secretary of Defense
P&D	Production and Deployment
PAGODA	Profile Alignment Group for ODA (Open Document Architecture)
PC	Personal Computer
PCA	Physical Configuration Audit
PCB	Printed Circuit Board
P&D	Production & Deployment
PDD	1. Page Description Data 2. Program Directive Document
PDDI	Product Definition Data Interchange (Air Force)
PDE	Product Data Exchange
PDES	Product Data Exchange using STEP
PDF	Portable Document File
pDISP	Proposed Draft International Standardized Profile
PDL	Page Description Language
PDR	Preliminary Design Review
PE	Professional Engineer
PHIGS	Programmer's Hierarchical Interface Graphics Standard
PHS&T	Packaging, Handling, Stowage, & Transportation
PL	Parts List
PLD	Programmable Logic Design
PLS AP	Product Logistic Support Application Protocol
PM	Program Manager
PMA	Portable Maintenance Aid
PMAG	Project Management Advisory Group
PMJALS	Program Manager, JCALS
PMS	1. Planned Maintenance System

## 2. Project Management System

PMTC	Pacific Missile Test Center
POSIX	Portable Operating System Interface
PREMO	PResentation Environment for Multimedia Objects
PTD	Provisioning Technical Documentation
PTM	Preliminary Technical Manual
PUB	Publication
PVE	Process Validation Enterprise
PWB	Printed Wiring Board
QA	Quality Assurance
QAPP	Quality Assurance Program Plan
QFD	Quality Function Deployment
QIC	Quarter Inch Cartridge
QSTR	Quick Short Test Reports
R&D	Research and Development
R&M	Reliability and Maintainability
RAMP	Rapid Acquisition of Manufactured Parts
RCM	Reliability Center Maintenance
RDC	Review Draft Copy
RDT&E	Research, Development, Test, and Evaluation
RFC	Request for Change
RFD	Request for Deviation
RFP	Request For Proposal
RFQ	Request for Quotation
RFW	Request for Waiver
RISC	Reduced Instruction Set Computing
ROM	Read Only Memory
RRM	Rapid Response Manufacturing
SALSA	Spares Acquisition and Logistics Support Analysis
SAP	Site Activity Plan
SCSI	Small Computer System Interface
SDAI	STEP Data Access Interface
SDE	Shared Data Environment
SDIF	SGML Document Interchange Format
SDR	System or Software Design Review
SE	Support Equipment
SEMP	System Engineering Management Plan

SERD	Support Equipment Recommendation Data
SGML	Standard Generalized Markup Language
SIE	Special Inspection Equipment
SIG	Special Interest Group
SOW	Statement of Work
SPA	Solicitation Package Automation
SPAG	Strategic Planning Advisory Group
SPDL	Standard Page Description Language
SQL	Standard Query Language
SRL	SGML Reuse Library
SSAP	Site Support Activity Plan
STEP	Standard for the Exchange of Product Model Data
STG	Standards Task Group
STR	SGML Target Registry
SW	Software
T&E	Test and Evaluation
T&TS	Training and Training Support
TCAPS	Technical CAPabilities
TCP/IP	Transmission Control Protocol/Internet Protocol
TDI	Technical Data Interchange
TDMO	Technical Data Management Officer
TDP	Technical Data Package
TDMP	Technical Data Management Program
TEMP	Test and Evaluation Master Plan
TI	Technical Information
TIF	Technical Information File
TIFF	Tagged Image File Format
TM	Technical Manual
TMCR	Technical Manual Contract Requirement
TMM	Technical Manual Manager
TMPODS	Technical Manual Publish-On-Demand System
TMSS	Technical Manual Specifications Standards
TO	Technical Order
TQM	Total Quality Management
TRIF	Tiled Raster Interchange Format
TRSL	Test Requirements and Specification Language
TSS	Telecommunication Standards Sector
TTG	Tiling Task Group

UFI	User Defined Information (same as GFI)
UHDL	UHSIC Hardware Description Language
UHSIC	Ultra High Speed Integrated Circuits
VASG	VHDL Analysis Standardization Group
VHDL	VHSIC Hardware Description Language
VHSIC	Very High Speed Integrated Circuit
VIM	Virtually Interconnected Management
VITAL	VHDL Initiative Toward ASIC Libraries
WAN	Wide Area Network
WBS	Work Breakdown Structure
WORM	Write Once/Read Many Times
WRA	Weapon Replaceable Assembly

## **A.2 CALS DEFINITIONS**

The following terminology has become common in the CALS environment in reference to data deliverables:

**AEGIS** is the combat and weapon system designed for use on the US Navy's CG 47 class of guided missile cruisers and the DDG 51 class of guided missile destroyers.

**Associated List** is a tabulation of engineering information pertaining to an item depicted on an engineering drawing or on a set of engineering drawings. Associated list is a generic term for any of the following: Parts List (PL), Data List (DL), Index List (IL).

**CGM** or Computer Graphics Metafile is a digital data file containing graphic information in a file format compatible with most other graphic systems.

**CITIS** (Contractor Integrated Technical Information Service) is a contractor developed service which provides electronic access to and/or delivery of contractually required Contract Data Requirements List (CDRL) data to users. CITIS, and consequently the contract provisions for CITIS, does not include the databases to which access is granted, or the database process, or the format of data to be accessed through CITIS.

**Data Call** is a formal process which includes all organizations which require data in order to perform a function at any time over the entire life cycle of the item being acquired. The data call will specifically include the applicable inventory control point and engineering and maintenance activities. In cases where an item is going to be managed by DLA or another service, DLA or the other service personnel should be specifically included in the formal data call. It is not appropriate that someone at another organization identify what the management activity needs in order to carry out its responsibilities relative to the item being procured. It is each organization's responsibility to specifically and clearly identify, and justify, its needs. In other words, the data call is to be addressed to those organizations which actually require and use the specific technical/engineering information conveyed by technical data, such as engineering and maintenance organizations and inventory control points. In turn, these organizations are responsible for providing to the program office their specific data (DIDs/CDRL) needs in order to carry out the functions

**ILS Data** is the technical information to support the ILS management process.

**Interim Deliverables** are any item or items delivered under the contract that are not specifically required by the contract, but may include draft forms of final deliverables.

**Legacy Data** is technical data (ILS Data, engineering drawings, LSAR, etc.) that was developed and archived before the implementation of CALS initiatives.

**LSA** or Logistic Support Analysis is the selective application of scientific and engineering efforts undertaken during the acquisition process, as part of the systems engineering process, to assist in: Causing support considerations to influence design; defining support requirements that are related optimally to design and to each other; acquiring the required support; and providing the required support during the operational phase at minimum cost.

**LSAR** or LSA Record is a set of data elements formatted in either flat file or relation table that is comprised of ILS technical data used to satisfy support acquisition.

**PDES/STEP** or Product Data Exchange using STEP/Standard for the Exchange of Product Model Data are standards and specifications under development for communicating a complete product model with sufficient information content so as to be interpretable directly by advanced CAD/CAM applications such as generative process planning, CAD-directed inspection, and automatic generation and verification of automated manufacturing data. PDES is being developed as a national standard, and STEP is being developed as the international counterpart. STEP is the international standards effort (officially entitled ISO 10303) to develop a neutral mechanism capable of completely representing product data throughout the life cycle of the product.

**Product Definition Data** denotes the totality of data elements required to completely define a product. Product definition data includes geometry, topology, relationship, tolerances, attributes, and features necessary to completely define a component part or an assembly of parts for the purpose of design, analysis, manufacture, test, and inspection.

**Product Drawings** are engineering drawings that provide the necessary design, engineering, manufacturing, and quality support information necessary to permit a competent manufacturer to produce an interchangeable item that duplicates the physical and performance characteristics of the original design without additional design engineering or recourse to the original manufacturer.

**Raster data** is a binary representation of an image. There are two types of raster data, tiled and untiled. Untiled raster data has no document architecture and is represented by a single compressed data entity. Tiled raster data resembles a two-dimensional grid with each tile or set of pixels representing a portion of the image.

**Technical Data Package** is a technical description of an item consisting of all applicable technical data such as drawings and associated lists, specifications, standards, performance requirements, quality assurance requirements, and packaging details necessary to define the design configuration and procedures required to ensure item performance.

**Technical Manuals** are any technical publication or other form of documentation used to install, operate, maintain, test, repair, or overhaul weapon systems and support equipment or to provide logistic support of ships, aircraft, weapon systems, or defense material. Technical manual information may be presented

or delivered in any form including, but not limited to, hard copy, audio and visual displays, magnetic tape, discs, and other electronic devices.

**TMCR** or Technical Manual Contract Requirement is a definitive contractual document that provides the complete content and format requirements for the preparation and delivery of one or more technical manuals and technical manual management data items. The TMCR consolidates the requirements from various specifications and standards and tailors those requirements to produce a technical manual that satisfies specified user needs.

**Transfer Media Format** is the physical form of the data deliverable such as paper, microfilm, magnetic tape, or optical disk.

**Validation** is the comprehensive testing of information, data, and procedures contained in a technical manual. This testing is accomplished by review/comparison of nonprocedural material against up-to-date source data and by actual performance of procedures on the system or equipment for which the manual was written by the TM preparing activity.

**Vector data** is the representation of an image as a sequence of line segments. Vector data provides geometrical and physical representation of objects in both two and three dimensions.

**Verification** is Government testing in an operational environment of the accuracy, adequacy, and suitability for use of a technical manual prior to final acceptance.

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