



CATIA-CADAM Solutions *Version 4.2.1*



Solutions for the entire product development process

Mechanical Design Solutions

From concept to detailed design to drawing production, the CATIA® Mechanical Design Solutions accelerate core activities of product development. Designers can select from 2D and 3D wireframe, exact and mock-up solids,

feature-based part design, 3D parametric/variational modeling, drafting and annotation, and more. Specialized applications assist with assembly management, sheet metal work, dimensioning and tolerancing, and composites.



Shape Design & Styling Solutions

These solutions offer tools to design parts where innovative forms or complex shapes are key factors. Included are functions to easily create, import, modify, analyze, and manage surfaces. Tools help stylists and designers working on

shapes requiring aesthetic, aerodynamic, or other design constraints. Specialized programs facilitate working with clouds of points, engraving/embossing and mapping patterns onto curved surfaces.



Analysis & Simulation Solutions

CATIA provides analysis solutions for the designer and for the analysis specialist. Surfaces, solids and now assemblies can be analyzed through automated meshing, solving and visualization tools. Solutions are available which fully automate design

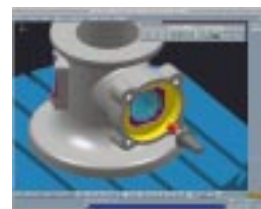
optimization to achieve stress targets. Specialists can use CATIA's proven tools for static and dynamic structural, stress, vibration and other types of analyses, including substructure analysis, allowing for true concurrent engineering.



Manufacturing Solutions

CATIA Manufacturing Solutions provide tools for drilling and 3- and 5-axis milling. Automated solutions are provided for the NC programmer as well as the NC specialist. These applications help companies share knowledge on stock, tools,

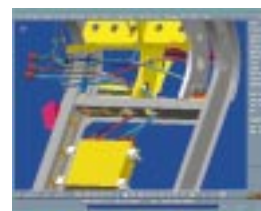
techniques and manufacturing parameters. Additional tools are provided for composites, nesting, lathe, defining and programming robots, and for stereo lithographic rapid prototyping.



Equipment & Systems Engineering Solutions

These solutions facilitate design, modification and analysis of electrical and fluid systems. Electrical systems design is handled from wire and cable content definition through manufacturing. These solutions include piping and tubing, schematics,

electrical equipment, harness routing and cable form board design. Space reservation, fitting simulation and interference and clearance analysis, provide for comprehensive space management.



Plant Design & Shipbuilding Solutions

These applications exploit engineering and design data across the entire enterprise and throughout the life-cycle of the plant or ship. Owner/operators can bring products to market faster, achieve consistent, high quality production at a lower cost

while meeting regulatory requirements. Engineering, construction firms and shipbuilders can capitalize on know-how to win projects and deliver them on time, within cost, at the highest quality while maximizing profitability.



CATIA Network Computing Solutions




CATIA Network Computing Solutions allow anyone to access CATIA data from anywhere over normal networks using ordinary PCs and workstations. Clients require only a Java-enabled browser such as Netscape Navigator or Microsoft Internet

Explorer. Users can quickly view multiple models; perform measurement analysis and 3D interference; capture, embed and annotate views in HTML pages, plus extract reports remotely with no prior training.



CATIA-CADAM Solutions 4.2.1 products




Mechanical Design Solutions

3D Functional Dimensioning & Tolerancing (FDT) 
Assembly Modeling (ASS)
CATIA-CADAM Drafting (CCD) 
CATIA-CADAM 2D Mark-up & Annotation (MU2)
Composites Covering (COV) 
Drafting (DRA)
Draw-Space (2D/3D) Integration (DRS) 
Feature-Based Design (FEA)
Generative Aerospace Sheetmetal Design (GSA) 
Generative Composites Covering (GCC) 
 Generative Composites Tape Design (GCT)
Sheet Metal Design (SHE)

Shape Design & Styling Solutions

Advanced Surface Design (ASU)
Body-In-White Templates (BWT) 
CATIA/ALIAS Interoperability (CAI)
Cloud to Geometry (CGO)
Develop (DEV)
Engraving/Embossing (ENG)
Free Form Design (FRF)
Generative Shape Modeling (GSM) 
Geodesic (GEO)
Global Shape Deformation (GSD)
Surface Design (SUD)








Equipment & Systems Engineering Solutions

2D Building Design (BDG)
3D Structures (STM)
3D Tubing Design (TU3)
Electrical Device & Support Modeling (ELD)
Electrical Generative Formboard (ELG) 
Electrical Wire Bundle Installation (ELW) 
Fitting Simulation (FIT)
Knowledge Engineering (CKE)
Ship Steelwork Design (SHB)
Ship Steelwork Production (SHP)
Space Analysis (SPA) 
Space Navigation (SPN)
Systems Pathways Definition (SPD)
System Schematics (SCH)








Analysis & Simulation Solutions

Analysis Infrastructure (ANI)
ANSYS® Interface (ANS)
Assembly and Substructure Analysis (ASA)
ELFINI Solver (ELF)
Finite Element Modeler (FEM)
Generative Part Dynamic Analysis (GPD)
Generative Part Optimization (GPO)
Generative Part Stress Analysis (GPS)
Kinematics (KIN)
NASTRAN® Interface (NAS)
Scientific Presentation Manager (SPM)


Manufacturing Solutions

Cell Design and Robot Programming (ROS)
Generative Composites Manufacturer (GCM)
Inspection Planning Assistant (IPA) 
Lathe (TUR)
Lathe Machining Programmer (LMP) 
Manufacturing Infrastructure (NCB) 
Milling Analysis (MAA)
Mold & Die Machining Assistant (MAD) 
Multi-Axis Machining Programmer (MMP) 
Multiple Axis Milling (NC5)
Nesting (NES)
Post Processor Builder (PPB)
Prismatic Machining Assistant (PMA)
Prismatic Machining Programmer (PMP) 
Robot and Controller Definition (ROC)
Rough Cutting (NCR)
STL Rapid Prototyping (STL)
Surface Machining Programmer (SMP) 
Toolshop Access (TSA)

Plant Design & Shipbuilding Solutions

 AEC Conveyor Design (ACD)
AEC Drafting (ADR) 
AEC Drawing Production (ADP) 
AEC Ductwork Design (ADW) 
AEC Equipment Design (EQT) 
AEC Infrastructure (ABA)
AEC Piping and Instrumentation Diagrams (PID) 
AEC Piping Design (APD) 
AEC Piping Isometrics Production (ISO) 
AEC Raceway Design (ARW)
AEC Ship Hull Design (SHD) 
 AEC STEP AP227 Interface (ST2)
AEC Structural FEA Integration (SAI)
AEC Structural Frame Analysis (STA)
AEC Structural Frame Modeling (STF) 
AEC Virtual Product Management (AVM) 




CATIA Application Architecture Solutions

2D Wireframe & Annotation (DR2)
3D Parametric Variational Modeler (PA3)
3D Wireframe (WF3)
4D Navigator (N4D)
CADAM IUE (IUE)
CATIA-CADAM Coupler (CCC)
CATIA-CADAM Hybrid Raster (RAS) 
CATIA-CADAM MCX Translator (MCX)
CATIA Distributed Services (CDS)
CATIA Object Manager (COM)
CATIA Viewing Services (CVS)
CATIA Data Management Access (CDA)
CDM Build Time (CDB)
CDM Library (LIC)
CDM-ProductManager Integration (CDP)
CDM Run Time (CDR)
Conferencing Groupware (CGW)
CPW Automated Test Tools (ATT)
CPW Software Environment (SWE)
Dynamic Sketcher (DYS)
DXF/DWG Interface (DXF)
Exact Solids (SOE) 
Graphic Interactive Interface (GII)
IGES Integrated Interface (IGS)
IGES Interface (IGI)
IGES MIL Standard 28000 Interface (IGC)
Image Design (IMD)
Library (LIB)
Publishing (PBG)
Realistic Rendering (REN)
Solid Mock-up (SOM)
STEP AP214 Infrastructure Interface (ST1)
STEP AP203 Interface (STP)
Visualization Studio (VST) 

Education Materials

CATIA Computer-Based Training (5799-CBT)
CATIA Solutions Process Methodologies (5799-GFK)

CATIA Network Computing Solutions

CATweb Navigator (WEB)  (Vers. 2 Rel. 2)
CATweb Space (WSP)  (Vers. 2 Rel. 2)
CATweb Publish (WPB)  (Vers. 2 Rel. 2)

Version 4.2.1

PRODUCTS

	CONFIGURATIONS												
	Drawing Production (DRP)	Downstream Detailing (DWD)	Solid-Based Part Design (SBP)	Solid-Based Part Development (SBV)	Solid-Based Part Design and Detailing (SBD)	Sheet Metal Design and Detailing (SDD)	Feature-Based Part Design and Detailing (FBD)	Assembly Design and Detailing (ASD)	Advanced Part Design (AD1)	Advanced Part Design and Detailing (ADD)	Advanced Part Development and Detailing (ADV)	Advanced Product Design (AD3)	
CATIA Object Manager (COM)	●	●	●	●	●	●	●	●	●	●	●	●	
Library (LIB)	●	●	●	●	●	●	●	●	●	●	●	●	
3D Wireframe (WF3)			●	●	●	●	●	●	●	●	●	●	
Dynamic Sketcher (DYS)	●	●	●	●	●	●	●	●	●	●	●	●	
3D Parametric Variational Modeler (PA3)			●	●	●	●	●	●	●	●	●	●	
Exact Solids (SOE) 🏹			●	●	●	●	●	●	●	●	●	●	
Feature-Based Design (FEA)							●	●	●	●	●	●	
DXF/DWG Interface (DXF)	●	●			●	●	●	●		●	●	●	
2D Wireframe and Annotation (DR2)	●	●			●	●	●	●		●	●	●	
Drafting (DRA)	●	●			●	●	●	●		●	●	●	
Draw-Space (2D/3D) Integration (DRS) 🏹		●			●	●	●	●		●	●	●	
Assembly Modeling (ASS)								●				●	
Kinematics (KIN)												●	
Surface Design (SUD)									●	●	●	●	
Advanced Surface Design (ASU)									●	●	●	●	
Free Form Design (FRF)												●	
Generative Shape Modeling (GSM) 🏹													
Body-In-White Templates (BWT) 🏹													
Visualization Studio (VST) 🏹												●	
Cloud to Geometry (CGO)													
STL Rapid Prototyping (STL)													
Space Analysis (SPA) 🏹								●				●	
Sheetmetal Design (SHE)						●							
Generative Part Stress Analysis (GPS)				●							●		
Generative Part Optimization (GPO)				●							●		
	Mechanical Design Solutions												

CONFIGURATIONS TAILORED TO INDUSTRIAL OCCUPATION PROFILES

CATIA is packaged to meet the needs of any size or type of company. Customers can select complete, ready-to-use configurations that map to typical occupations. Each configuration offers logical packaging and attractive pricing. The building blocks of configurations are the dozens of CATIA products.

Add-on configurations give customers attractive options to grow their existing installations. Base configurations can be easily extended into the areas of drafting, solids, surface design, analysis, and machining.

When additional capabilities are needed, customers can expand a standard configuration by simply adding a product. Alternately, customers with highly specialized needs can custom-mix products to precisely meet their unique requirements.

PRODUCTS

CONFIGURATIONS
















	Surfaced Part Design (SUP)	Generative Shape Design (GSH)	Styling and Rendering (STY)	Shape Design and Detailing (ASH)	Finite Element Analysis (FAN)	Finite Element Integrated Analysis (FEI)	Design and Analysis (DAA)	Mold and Die Manufacturer (MDM)	Multi-Axis Manufacturer (MXM)	3D Electrical Systems Engineering (EEM)	3D Electrical Engineering and Formboard (EEF)
CATIA Object Manager (COM)	●	●	●	●	●	●	●	●	●	●	●
Library (LIB)	●	●	●	●						●	●
3D Wireframe (WF3)	●	●	●	●	●	●	●	●	●	●	●
Dynamic Sketcher (DYS)	●	●	●	●	●	●	●	●		●	●
3D Parametric Variational Modeler (PA3)							●			●	●
Exact Solids (SOE) 🏠							●			●	●
Feature-Based Design (FEA)											
DXF/DWG Interface (DXF)				●							●
2D Wireframe and Annotation (DR2)				●							●
Drafting (DRA)				●							●
Draw-Space (2D/3D) Integration (DRS) 🏠				●							●
Assembly Modeling (ASS)											
Kinematics (KIN)											
Surface Design (SUD)	●	●	●	●	●	●	●	●			
Advanced Surface Design (ASU)	●	●	●	●							
Free Form Design (FRF)		●	●	●							
Generative Shape Modeling (GSM) 🏠		●	●								
Body-In-White Templates (BWT) 🏠											
Visualization Studio (VST) 🏠			●								
Cloud to Geometry (CGO)			●								
STL Rapid Prototyping (STL)			●								
Space Analysis (SPA) 🏠	Shape Design & Styling Solutions									●	●
Sheetmetal Design (SHE)	Shape Design & Styling Solutions										
Generative Part Stress Analysis (GPS)	Shape Design & Styling Solutions										
Generative Part Optimization (GPO)	Shape Design & Styling Solutions										
Generative Part Dynamic Analysis (GPD)	Shape Design & Styling Solutions										
Analysis Infrastructure (ANI)					●	●	●				
Finite Element Modeler (FEM)					●	●	●				
Scientific Presentation Manager (SPM)					●	●	●				
ELFINI Solver (ELF)						●	●				
IGES Integrated Interface (IGS)					Analysis & Simulation Solutions				●		
Manufacturing Infrastructure (NCB) 🏠								●	●		
Prismatic Machining Assistant (PMA)											
Prismatic Machining Programmer (PMP) 🏠								●	●		
Toolshop Access (TSA)								●	●		
Surface Machining Programmer (SMP) 🏠								●	●		
Multi-Axis Machining Programmer (MMP) 🏠								●	●		
Mold and Die Machining Assistant (MAD) 🏠								●			
Electrical Device and Support Modeling (ELD)										●	●
Systems Pathways Definition (SPD)										●	●
Electrical Wire Bundle Installation (ELW) 🏠										●	●
Electrical Generative Formboard (ELG) 🏠											●

Manufacturing Solutions

Equipment & Systems Engineering Solutions

PRODUCTS

ADD-ON CONFIGURATIONS

	Detailing Add-on (DET)	Solid Design Add-on (SDA)	Generative Composites Design Add-on (GCD) 	Surface Modeler Add-on (SUR)	Generative Body-In-White Add-on (GBW)	Analysis Add-on (CAN)	Generative Part Analysis Add-on (GPA)	Prismatic Machining Add-on (PRM)	Surface Machining Add-on (SUM)	Multi-Axis Machining Add-on (MUM)	Tooling Machining Add-on (TOM)
CATIA Object Manager (COM)											
Library (LIB)											
3D Wireframe (WF3)		●									
Dynamic Sketcher (DYS)		●									
3D Parametric Variational Modeler (PA3)		●									
Exact Solids (SOE) 		●									
Feature-Based Design (FEA)											
DXF/DWG Interface (DXF)	●										
2D Wireframe and Annotation (DR2)	●										
Drafting (DRA)	●										
Draw-Space (2D/3D) Integration (DRS) 	●										
Assembly Modeling (ASS)											
Kinematics (KIN)											
Surface Design (SUD)				●							
Advanced Surface Design (ASU)				●							
Free Form Design (FRF)				●							
Generative Shape Modeling (GSM) 					●						
Body-In-White Templates (BWT) 					●						
Visualization Studio (VST) 											
Cloud to Geometry (CGO)											
STL Rapid Prototyping (STL)											
Space Analysis (SPA) 											
Sheetmetal Design (SHE)											
Generative Part Stress Analysis (GPS)							●				
Generative Part Optimization (GPO)							●				
Generative Part Dynamic Analysis (GPD)							●				
Analysis Infrastructure (ANI)						●					
Finite Element Modeler (FEM)						●					
Scientific Presentation Manager (SPM)						●					
ELFINI Solver (ELF)											
IGES Intergrated Interface (IGS)											
Manufacturing Infrastructure (NCB) 								●	●	●	●
Prismatic Machining Assistant (PMA)								●			
Prismatic Machining Programmer (PMP) 								●	●	●	●
Toolshop Access (TSA)								●	●	●	●
Surface Machining Programmer (SMP) 									●	●	●
Multi-Axis Machining Programmer (MMP) 										●	●
Mold and Die Machining Assistant (MAD) 											●
Composites Covering (COV) 			●								
Generative Composites Covering (GCC) 			●								
Generative Composites Tape Design (GCT) 			●								

Add-on Configurations

PRODUCTS

CONFIGURATIONS

	Design Base (PDB)	Drawing Generator (PDG)	Piping Isometrics Generator (PIP)	Piping Designer (PPD)	Ductwork Designer (PDD)	Structural Designer (PSD)	Structural Analyst (PSA)	Tooling Structures Design (PTD)	Conveyor Design (PCD)	Plant Designer (PLD)	Raceway Designer (PRD)	Piping and Instrumentation Diagrams Designer (PAI)	Ship Hull Designer (PSH)	Digital Manufacturing Plant (PMD)	
CATIA Object Manager (COM)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Library (LIB)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DXF/DWG Interface (DXF)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Dynamic Sketcher (DYS)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
AEC Infrastructure (ABA)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
AEC Drafting (ADR)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
AEC Drawing Production (ADP)		●						●							
AEC Piping Isometrics Production (ISO)			●												
AEC Piping Design (APD)				●						●				●	
AEC Equipment Design (EQT)				●	●			●	●	●				●	
AEC Ductwork Design (ADW)					●					●				●	
AEC Structural Frame Modeling (STF)						●	●	●		●				●	
AEC Structural Frame Analysis (STA)							●	●							
AEC Conveyor Design (ACD)									●					●*	
Space Analysis (SPA)										●				●	
AEC Raceway Design (ARW)										●	●			●	
Systems Pathways Definition (SPD)											●				
AEC Piping & Instrumentation Diagrams (PID)												●			
AEC Ship Hull Design (SHD)													●		
Fitting Simulation (FIT)														●	
4D Navigator (N4D)														●	
AEC Virtual Product Management (AVM)															●
CATIA Data Management Run Time (CDR)															●

ADD-ON CONFIGURATIONS

Virtual Product Management Add-on (PVM)

Plant Design & Shipbuilding Solutions

Enhanced in 4.21

* Added in 4.21

The products and configurations listed in this matrix are available for the following workstation platforms:

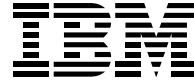
- IBM AIX®
- Hewlett-Packard HP-UX
- SiliconGraphics® IRIX™
- Sun™ Solaris™

The exceptions are detailed below.

The CCD, IUE™, MCX and MU2 products are only available for the AIX and HP-UX workstation platforms. The SWE and ATT products are only available for the AIX workstation platform. CDP is only available on the AIX, HP-UX and Solaris workstation platforms. The following products are also available under Microsoft® Windows NT™: CCD, IUE, MCX, MU2 and RAS.

The machine type is 5626 for all workstation offerings.

CATIA 4.21 on the UNIX workstation platforms is fully interoperable with CATIA 4.1.7 Refresh 4 on the IBM MVS and VM mainframe platforms or CATIA 4.1.7 Refresh 5 on the OS/390 platform. A “transparent access” method gives mainframe users at their 4.1.7 level the ability to open CATIA models which contain 4.2.0 or 4.2.1-specific entities.



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