

# **InfoCAD Program System**

Product Overview  
Price List



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Price List**

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## General Information

This price list supercedes all previous price lists.

### Pricing, Installation

All goods and services are subject to the General Terms and Conditions of InfoGraph GmbH. The listed prices are quoted ex works Aachen, Germany, and exclude VAT. On-site installation will be charged on a time and material basis.

### Scope of Delivery, Network Licenses

The InfoCAD program system is delivered on a CD and is compatible with Windows 8 and newer. The programs feature software protection and are installed with single-user or network licenses. The licensing fees do not depend on the type of installation.

### Multiple Licenses

The price list shows the fees for the initial license of the program components. In the case of multiple installations at one business location, the following scale of discount shall apply:

2nd license:	40% discount on initial license
3rd or subsequent license:	70% discount on initial license

### Conditions for Universities

Special licensing agreements are available upon request if the program is used for educational and research purposes.

### Warranty Period

The warranty period is 6 months. Within that period the licensee may receive program maintenance and application support free of charge.

### Software Maintenance Agreement

Upon conclusion of a software maintenance agreement, the licensee is eligible for all program revisions and extensions during the entire agreement period. In addition, the licensee may make use of the support services of the licensor regarding program system use at any time via telephone, mail or the Internet.

## **Extension of Program Licenses**

All program licenses can be extended in a modular fashion. Program components purchased during the warranty or maintenance period shall be credited based on the range of functions they provide. After this period, the licensee may be charged for updating older program components prior to extension.

## **Leasing**

The monthly leasing fee for a program license including software maintenance is 4.5% of the listed price. The minimum leasing period is 3 months. Expansion modules may be leased only in conjunction with a basis module. The scale of discounts for multiple licenses are not applicable in this case.

## **Study Version**

A study version for teaching and training purposes and without warranty, maintenance and consulting services is available free of charge. The student version offers a limited range of functions and does not include software protection. Documentation is limited to the help system only.

## **Email, Internet**

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## **Mailing Address**

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InfoGraph® Software uses Microsoft® MFC and Intel® MKL libraries.

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## Finite Elements 2D

Analysis of slabs and plain stress structures with downstand beams as well as 2D frameworks and girder grids.

**Price in €**  
plus VAT

- Internal forces calculation
- Stress determination
- Load case combination
- Polygonal beam sections, steel sections
- Elastic bedding with exclusion of tensile stress
- Elastic support according to modulus of compressibility method
- Stiff or spring-mounted support with exclusion of tensile forces
- Frameworks based on the second-order theory
- Determination of influence lines and surfaces
- Checks at the ultimate limit state according to DIN 1045-1, OENORM B 4700, SIA 262 and EN 1992-1-1
  - Bending with or without longitudinal force or long. force only
  - Lateral force with minimum level of reinforcement
  - Pure torsion or torsion with lateral force
  - Check against punching shear
  - Check against concrete and reinforcing steel fatigue
- E-E and E-P steel checks according to DIN 18800 and EN 1993-1-1
- Section analysis for polygonal beam sections
- Management of a section database

CAD user interface for entering all system data, graphical and alphanumeric results output, serial print with automatic updating of results plots, animation using the InfoGraph System Viewer, data exchange over DXF, DSTV and IFC interfaces, BIM Add-In for Revit®, transfer of reinforcements to construction programs.

**3,900.00**

### Serviceability Checks Reinforced Concrete

- Limiting the concrete compressive stresses
- Limiting the reinforcing steel stresses
- Minimum reinforcement for crack width limitation
- Limiting the crack width via direct calculation

**750.00**

### Timber Checks

**750.00**



## Finite Elements 3D

Calculation of slabs, plain stress structures, shells and prismatic shell structures as well as 2D and 3D frameworks.

- Internal forces calculation, stress determination, load case combin.
- Polygonal beam sections, steel sections
- Elastic bedding with exclusion of tensile stress
- Elastic support according to modulus of compressibility method
- Stiff or spring-mounted support with exclusion of tensile forces
- Frameworks based on the second-order theory
- Determination of influence lines and surfaces
- Checks at the ultimate limit state according to DIN 1045-1, OENORM B 4700, SIA 262 and EN 1992-1-1
  - Bending with or without longitudinal force or long. force only
  - Lateral force with minimum level of reinforcement
  - Pure torsion or torsion with lateral force
  - Check against punching shear
  - Check against concrete and reinforcing steel fatigue
- E-E and E-P steel checks according to DIN 18800 and EN 1993-1-1
- Section analysis of polygonal beam sections; profile database

CAD user interface for entering all system data, graphical and alphanumeric results output, serial print with automatic updating of results plots, animation with the InfoGraph System Viewer, data exchange over DXF, DSTV and IFC interfaces, BIM Add-In for Revit®, transfer of reinforcements to construction programs.

### **Serviceability Checks Reinforced Concrete**

### **Timber Checks**

### **Extension Modules**

Calculation of cable structures with or without prestressing according to the theory of large deformations.

Calculation of shell and solid element structures according to the second-order theory, determination of buckling eigenmodes incl. load factors.

Parallel sparse solver, substructure technique and iterative equation solver for large systems.

**Price in €**  
plus VAT

**8,950.00**

**750.00**

**750.00**

1,500.00

1,250.00

1,250.00

## **Solid Models**

### **Extension Module for 3D FEM Calculation**

Calculation of solid models with finite solid elements.

- 8- and 10-node elements
- Construction with model objects
- Automatic tetrahedral mesh generator
- Nonlinear supports and bedding
- Contact

Graphical and interactive input of solid models, graphical display of the calculated deformations and stresses, integration of stresses with design objects.

**Price in €**  
plus VAT

**2,950.00**

## Bridge Checks

### Extension Module for 3D FEM Calculation

This module performs checks for all beam and shell structures as defined in EN 1991-2 and EN 1992-2 as well as DIN Technical Reports 101 and 102. Elements with no prestress as well as prestressed elements with subsequent bond, without bond, with external prestressing and in mixed construction can be analyzed.

- Consideration of any stresses and loading
- Special preparation of the load model LM 1
- Automatic combination of the actions
  - Construction and final states for all action combinations
  - Optionally user-defined actions
- Checks at the ultimate limit state
  - Minimum reinforcement for ensuring robustness
  - Bending with or without longitudinal force or longitud. force alone
  - Lateral force under consideration of minimum reinforcement
  - Pure torsion and torsion with lateral force
- Checks against fatigue
  - Bending and prestressing steel
  - Shear and torsional reinforcement
  - Concrete under longitudinal compressive stress
  - Concrete compressive struts under lateral force and torsion
- Checks at the serviceability limit state
  - Minimum reinforcement for the crack width limitation
  - Limiting the crack width through direct calculation
  - Check of the decompression
  - Limiting the concrete compressive stress
  - Limiting the reinforced concrete stresses
  - Limiting the prestressing steel stresses
  - Check of the diagonal principal tensile stresses

Graphical display of the calculated reinforcements and stresses of all action combinations and situations.

Output of detailed check log.

Special price in conjunction with the Prestressing module.

**Price in €**  
plus VAT

**3,900.00**

**2,900.00**

## **Prestressing**

### **Extension Module for 3D FEM Calculation**

Calculation of prestressed beam, shell and solid element structures according to DIN 1045-1, OENORM B 4750, SIA 262 and EN 1992-1-1

**Price in €**  
plus VAT

- Element-independent 3D tendon guide
- Consideration of over-stressing reserve through using the Kappa allowance according to DAfStb (German Committee of Reinforced Concrete) Book 525 and DIN Technical Report
- Load processing using cubical spline functions
- Consideration of creep and shrinkage at the composite section
- Checks at the ultimate limit state
  - Minimum reinforcement for ensuring robustness
  - Bending with or without longitudinal force or longit. force alone
  - Lateral force under consideration of minimum reinforcement
  - Pure torsion and torsion with lateral force
- Checks against fatigue
  - Bending and prestressing steel
  - Shear and torsional reinforcement
  - Concrete under longitudinal compressive stress
  - Concrete compressive struts under lateral force and torsion
- Checks at the serviceability limit state
  - Minimum reinforcement for limiting crack width
  - Limiting crack width through direct calculation
  - Check of the decompression
  - Limiting the concrete compressive stress
  - Limiting the reinforced concrete stresses
  - Limiting the prestressing steel stresses

Graphical and interactive input of tendon geometry with visual control of the prestress distribution, graphical display of the calculated reinforcements and stresses of all action combinations and situations. Output of detailed check log.

**4,900.00**

## Dynamics

### Extension Module for 3D FEM Calculation

Dynamic analysis of 2D and 3D beam and shell structures, solid models and cable structures.

- Determination of eigenvalues and eigenvectors under consideration of point and multi-point mass distributions
- Mass distribution from load cases
- Periodic and transient load functions
- Time step integration with determination of all system reactions
- Direct integration with consideration of point dampers
- Response spectrum according to DIN 4149, OENORM B 4015, SIA 261 and EN 1998-1
- User-defined response spectra
- Dynamic train crossing with freely selectable tracks

Interactive, graphical definition of point masses, graphical rendering of load functions, speeds, accelerations, deformations and internal forces in a given time interval, animation using the InfoGraph System Viewer.

**Price in €**  
plus VAT

**3,900.00**

## Frameworks

Frameworks in accordance with the first-order and second-order theory.

- Internal forces calculation, stress determination, load case combin.
- Polygonal beam sections, steel sections
- Elastic bedding with exclusion of tensile stress
- Consideration of predeformation
- Determination of influence lines
- Checks at the ultimate limit state according to DIN 1045-1, OENORM B 4700, SIA 262 and EN 1992-1-1
  - Bending with or without longitudinal force or long. force only
  - Lateral force with minimum level of reinforcement
  - Pure torsion or torsion with lateral force
  - Check against concrete and reinforcing steel fatigue
- E-E and E-P steel checks according to DIN 18800 and EN 1993-1-1
- Section analysis of polygonal beam sections; profile database

CAD user interface for all system data input, graphical and alphanumeric results output, serial print with automatic updating of results plots, animation with the InfoGraph System Viewer, data exchange via DXF, DSTV and IFC interfaces.

### 2D Frame

This module is part of the *Finite Elements 2D and 3D* suites.

**1,900.00**

### 3D Frame

This module is part of the *Finite Elements 3D* suite.

**2,500.00**

### Serviceability Checks Reinforced Concrete

**750.00**

### Timber Checks

**750.00**

## Lateral Torsional Buckling Check

Check according to DIN 18800 and EN 1993-1-1, in accordance with the equivalent beam method.

- Application for single- and double-symmetric I and U profiles
- Profile selection via section library
- Alternative definition of customized sections
- Consideration of load eccentricities and elastic rotational bedding
- Results log with system diagrams

**500.00**

## Nonlinear System Analysis

Determination of the internal force and deformation values for reinforced concrete and steel with allowance for physical nonlinearities (state 2 resp. plasticity).

- Reinforced concrete with stress-strain-curve according to DIN 1045, DIN 1045-1, OENORM B 4700, SIA 262, EN 1992-1-1
- Effect of concrete on tension between cracks
- Ultimate limit state
  - Check with allowance for existing reinforcement
- Serviceability limit state
  - Deformations with allowance for existing reinforcement
- Consideration of long-time deformations as result of concrete creeping
- Steel with bilinear stress-strain-curve under consideration of the Huber - von Mises yield criterion and interaction with all internal forces
- Bilinear stress-strain-curve and individually definable compressive and tensile strength
- Bedding with bilinear bedding curve
- Automatic reinforcement increase during ultimate limit state check for frameworks

Graphical display of internal forces, strains and stresses on the upper and lower sides as well as maximum comparison stresses of the elements.

### **Extension for '2D Frame' program module**

**1,500.00**

### **Extension for '3D Frame' program module**

(includes nonlinear system analysis of 2D frameworks)

**2,000.00**

### **Extension for the 'Finite Elements 3D' program module**

Can be used for beam, shell and solid elements  
(includes nonlinear system analysis of 3D frameworks)

**3,500.00**

**Price in €**  
plus VAT

## **Structural Analysis for Fire Scenarios Extension Module for the 'Nonlinear System Analysis'**

Analysis of 2D and 3D beam and shell structures with steel, reinforced concrete, timber and composite sections in accordance with EN 1992-1-2, EN 1993-1-2, ENV 1994-1-2 and EN 1995-1-2.

- Any kind of section geometry
- Steel, reinforced concrete, timber and free materials (e.g., insulation) within a section
- Predefined and user-defined thermal material properties
- Unit temperature-time curve, hydrocarbon fire curve
- User-defined fire curves
- Calculation of the temperature profile in the section via nonlinear time-step integration
- Consideration of different fire scenarios
- Temperature-dependent thermal strains and stress-strain curves
- Nonlinear time-step calculation of the structure based on the general calculation method

Thermal analysis for solid structures.

- Stationary and instationary thermal analysis
- Time-dependent heat source
- Stress analysis with the calculated temperature distributions

Graphical display of the time-dependent temperature distributions, deformations, internal forces and support reactions.

**Price in €**  
plus VAT

**2,450.00**



## Axisymmetric Shell

Calculation of rotationally symmetrical shell structures made of reinforced concrete and steel based on finite element methods.

- Internal forces calculation
- Stress determination
- Load case combination
- Orthotropic material behavior
- Radial and tangential element bedding with exclusion of tensile stresses
- Checks at the ultimate limit state according to DIN 1045-1, OENORM B 4700, SIA 262 and EN 1992-1-1
  - Bending with or without longitudinal force or long. force only
  - Lateral force with minimum level of reinforcement
  - Check against concrete and reinforcing steel fatigue

CAD user interface for entering all system data, graphical and alphanumeric results output, serial print with automatic updating of results plots, animation using the InfoGraph System Viewer, data exchange over DXF interface.

**Price in €**  
plus VAT

**2,300.00**

### **Serviceability Checks Reinforced Concrete**

- Limiting the concrete compressive stresses
- Limiting the reinforcing steel stresses
- Minimum reinforcement for crack width limitation
- Limiting the crack width via direct calculation

**750.00**

## Software Maintenance

Upon conclusion of a software maintenance agreement, the licensee is eligible for all program revisions and extensions during the entire agreement period. In addition, the licensee may make use of the support services of the licensor regarding program system use at any time via telephone, mail or the Internet.

The maintenance agreement can be concluded during the warranty period and will be valid for one year. It will automatically be extended by an additional year unless terminated three months before expiration.

The maintenance fees depend on the type and scope of the program licenses and are imposed at the start of each agreement year. Each license is always included in the agreement as a whole.

Multiple licenses are charged based on the scale of discount.

Program maintenance and consulting are provided free of charge during the warranty period.

### Annual Maintenance Fees for First License

	Price in € plus VAT
Finite Elements 2D	780.00
Finite Elements 3D	1,380.00
Solid Models	440.00
Bridge Checks	550.00
Prestressing	780.00
Dynamics	550.00
2D Frame	300.00
3D Frame	460.00
Nonlinear System Analysis for Frameworks	300.00
Nonlinear System Analysis for Beam and Shell Structures	500.00
Structural Analysis for Fire Scenarios	390.00
Axisymmetric Shell	330.00
Parallel Sparse Solver	200.00

# General Terms and Conditions

of InfoGraph GmbH in Aachen, Germany, as of June 1, 2018.

## **§ 1 Enforcement of Terms and Conditions, Applicable Law**

The goods, services and offers of the Contractor are provided exclusively on the basis of these General Terms and Conditions. The General Terms and Conditions are therefore also valid for all future business relations even if not expressly agreed upon again. The law of the Federal Republic of Germany shall apply exclusively.

## **§ 2 Conclusion of Agreement**

(1) All offers enclosed in brochures and advertisements and the prices quoted therein are non-binding and subject to change. The Contractor shall be bound to specially negotiated offers for a period of 30 calendar days.

(2) The Customer shall be bound to his order for a period of 6 weeks. The written confirmation of the Contractor shall be required for orders to have legal effect.

(3) Subsidiary agreements, alterations and amendments shall require the written confirmation of the Contractor in order to be valid.

## **§ 3 Types of Agreement**

The agreements between the Contractor and Customer shall be understood as sales agreements insofar as they involve the delivery of goods. The creation, modification and installation of software shall be provided under service contracts. All mutual obligations shall arise exclusively from the following provisions which shall not be affected by any financial agreements between the Customer and a third party. In particular, the payment obligations of the Customer are upheld in full.

## **§ 4 Prices, Price Changes**

(1) All prices are listed without statutory VAT.

(2) The prices for the delivery of goods including freight and packaging are not included.

(3) Insofar as the time between conclusion of the agreement and the agreed or actual date of delivery/service performance is more than 6 months, the prices of the Client valid at the time of delivery, provision or service shall apply.

(4) The Contractor shall charge an hourly rate for the modification, configuration or installation of software. If the Contractor carries out work on the Customer's premises, then he shall be entitled to charge any related travel costs.

## **§ 5 Delivery and Performance Times**

(1) In the event a delivery or service by the Contractor is in default, the Customer may

withdraw from the agreement based on the following provision.

(2) The Customer shall set the extension period as prescribed by law to 6 weeks. The extension period shall begin once notice thereof is received by the Contractor.

## **§ 6 Shipping and Transfer of Risk**

(1) The risk shall transfer to the Customer as soon as the shipment is handed over to the carrier or has left the premises of the Contractor for delivery. If shipment is delayed at the request of the Customer, the risk shall transfer to the Customer upon shipment notification.

(2) The Contractor shall be entitled but not obligated to insure shipments in the name and at the cost of the Customer.

## **§ 7 Software License**

(1) The Contractor grants the Customer a non-exclusive, non-transferable license to use the software programs created by the Contractor in the business operations of the Customer. The license includes the right to purchase subsequent program revisions or extensions.

(2) In the case of lease installations, the right to use the licensed programs shall expire once the leasing period ends. The Customer shall be obligated to return to the Contractor all data carriers, documentation and software protection devices at his own cost and risk and delete all program copies within one week after expiry of the leasing period. If the Customer is in default in returning said items, the Contractor shall be entitled to claim the agreed leasing fees as compensation for use until those items are returned.

(3) Data carriers and devices included in the delivery for software protection purposes shall remain the property of the Contractor. If it is shown that such devices are damaged by accident, they shall be replaced with reimbursement of the costs of the Contractor. In case of willful damage or damage due to serious operating errors, the Contractor shall exercise its equitable discretion in determining the conditions for a redelivery of programs.

(4) The programs and operating instructions are protected by copyright. The programs may not be copied, altered or amended or passed on to third parties. The Customer may, however, create a backup copy of each data carrier as well as a working version of the program for exclusive use.

The software protection may not be removed or disabled.

(5) If unauthorized persons are allowed to use the programs or the software protection is removed or disabled by the Customer or by a third party whom the Customer has given access to the programs, the Customer shall be required to pay a contract penalty in the amount of the licensing fee for each case of violation. The right to assert additional damages shall be reserved.

### **§ 8 Warranty and Liability**

(1) The warranty period is 6 months and begins on the date of delivery or service performance.

(2) If the delivery item is defective or missing promised features, the Contractor shall choose to either replace or rectify the original item at the exclusion of further warranty claims by the Customer. Multiple rectifications shall be permitted. This shall also apply to the programs licensed by the Contractor. Program errors are defined as program instructions or omitted program instructions which result in incorrect results or program failure despite proper use of the program in accordance with the operating manual. The warranty rights of the Customer shall be limited to a right to rectification which is asserted by means of an exact written description of the error and situation in which the error occurred.

(3) The Customer must inspect the goods for shipping damages immediately upon arrival and notify the Contractor in writing of any damages or losses. The Contractor must also be given written notification of any obvious defects immediately or within 2 weeks of delivery at the latest. A violation of these provisions shall lead to the exclusion of any and all warranty claims against the Contractor.

(4) The Contractor shall to the best of his knowledge inform and advise the Customer regarding the use of his products. The Contractor shall only be held liable for this as set forth in the paragraph below if a special fee has been agreed for the above service.

(5) Compensation claims against the Contractor or his vicarious agents arising from impossibility of service performance, non-performance, positive breach of contract, debt at the time of contract conclusion or improper handling shall be excluded provided that such damages are not the result of willful or gross negligence.

### **§ 9 Retention of Title**

(1) The Contractor shall retain the title to supplied goods (goods subject to retention of title) until all the demands which the Contractor is or will be legally entitled to assert against the Customer have been fulfilled. The Customer may not possess any goods subject to retention of title.

(2) In the event of improper conduct by the Customer, in particular default of payment, the Contractor shall be entitled to take back all goods subject to retention of title or revoke software licenses at the cost of the Customer. If the Contractor asserts this right, it shall not entail withdrawal from the agreement.

### **§ 10 Payment**

(1) Sales or technical personnel shall not be entitled to cash collection. Payment with discharging effect can only be made directly to the Contractor or to one his specified bank accounts.

(2) Unless specified otherwise, the invoices of the Contractor shall be paid in net within 14 days of the invoice date.

(3) The Contractor shall reserve the right to refuse checks or bills of exchange. Acceptance shall only be given on account of payment. Discount or bill charges shall be borne by the Customer and due immediately.

(4) Under the exclusion of §§ 366 and 367 of the BGB (German Civil Code) and despite conflicting provisions of the Customer, the Contractor shall determine which demands have been fulfilled through payment by the Customer.

(5) The Customer shall only be entitled to set off payment if counter claims are determined to be indisputable or legally enforceable.

### **§ 11 Privacy**

(1) The Contractor will electronically store the personal data necessary to fulfill the concluded contracts as well as the usage data for licensed software.

(2) By placing of orders, the Customer declares his consent to electronic storage of his data according to the European General Data Protection Regulation (GDPR), Article 6, paragraph 1, letter (a). He has the right to information, correction, restriction, blocking and deletion of his data.

(3) The following institution is responsible as supervisory authority under Article 77 of the GDPR: Landesbeauftragte für Datenschutz und Informationsfreiheit Nordrhein-Westfalen, Kavalleriestr. 2-4, 40213 Düsseldorf, Germany.

### **§ 12 Consumer Information as per § 36 VSBG**

The Contractor is not obliged to support settlement proceedings before a consumer arbitration board under the German Act on Alternative Dispute Resolution in Consumer Matters (VSBG) and does not take part in it.

### **§ 13 Severability Clause**

Should one or more of the provisions set forth in these General Terms and Conditions be held to be invalid, the validity of the remaining provisions shall remain unaffected thereby. Invalid provisions

shall be replaced by provisions which best reflect the original intent of the contract.

**§ 14 Place of Performance, Jurisdiction**

The place of jurisdiction and performance for all goods and services of the Contractor shall be Aachen, Germany.





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**InfoGraph**   
*Software für die Tragwerksplanung*