



## Main Core Competencies

- Agent Technology
- Animation
- Augmented Reality
- Avatars
- Computer Supported Cooperative Work (CSCW)
- Computer Vision
- Data Exchange
- Graphical Information Systems (GIS)
- Graphical User Interface
- Human Computer Interaction (HCI)
- Imaging
- Image Processing
- Internet, Intranet
- I\*net-based Learning and Training
- Mobile Computing
- Modeling
- Multi/Hyper Media
- Multimedia Data Bases
- Networking, Telecommunication
- Neuronal Nets and Evolutionary Algorithms
- OO-Framework and Compound Document Architecture
- Perceptual Computing
- Printing & Publishing
- Product Data Technology (PDT)
- Radiosity & Raytracing
- Secure Image Communication
- Security Technology
- Simulation
- Telework, Telecooperation, Telelearning
- Video Computing
- Visual Computing
- Virtual Reality
- Visualization

## Main Application Domains

- Automotive industry
- Architecture, Interior decoration, design
- Bank and insurance business
- Biotechnology
- Air and space travel systems
- Chemical and pharmaceutical industry
- Cultural Heritage
- Education and training
- Entertainment
- Facility management
- Marketing and advertising
- Mechanical engineering
- Medicine and medical technologies
- Microelectronics
- Mobile information systems
- Online services and new media
- Pollution control
- Print machines
- Public administration
- Publishing trade
- Ship construction
- Social and public health, support of older and disabled persons
- Software industry
- Telecommunication, networking and service providers
- Telematics
- Telework Technologies
- T.V. Stations
- Tourism
- Transport and Traffic

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## Computer Graphics

Computer graphics is the **technology with which pictures, in the broadest sense of the word (synthetic graphics as well as grayscale and color images), are captured or generated, presented, manipulated, digitally processed in the appropriate form for the respective application and merged with other, nongraphical application data.** Computer graphics also includes the computer-supported integration and manipulation of these pictu-

res with other kinds of data, such as audio, speech and video (**to create multimedia systems**) as well as corresponding advanced **dialogue and interactive technologies.** Concepts which characterize the important topics of computer graphics are, to name a few, visualizing information, visual data mining, visual computing, virtual reality (VR), augmented reality (AR), interactive Internet services and secure image transmission and communication.

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