Advanced AutoCAD Commands and Shortcuts for Professionals Training Course



14 - 18 Dec 2026

Boston

7500 € (Per Person)

Ref: #CAD4857_60252

Course Introduction / Overview:

This training course is designed to equip design professionals, engineers, and drafting technicians with the strategic and technical skills needed to master advanced AutoCAD commands and shortcuts. The ability to use these powerful tools efficiently is a critical factor in improving productivity and accuracy on a project. This program, offered by BIG BEN Training Center, provides a comprehensive framework for understanding the core principles of advanced AutoCAD, from various drawing customization and automation techniques to 3D modeling and data extraction. We will explore key concepts such as dynamic blocks, LISP programming, and the use of external references (Xrefs). The curriculum is informed by the academic work of authors like George Omura, whose book, Mastering AutoCAD, provides a foundational and detailed understanding of the principles behind effective technical drawing. This course goes beyond a simple overview of basic commands to provide a deep understanding of how to implement real-world solutions that ensure design accuracy, operational efficiency, and project profitability. We prepare participants to be leaders who can build more efficient and innovative design initiatives.

Target Audience / This training course is suitable for:

- Architects and designers.
- Civil and structural engineers.
- Drafting technicians and specialists.
- Project managers.
- Interior designers.
- Manufacturing engineers.
- GIS professionals.
- Government agencies and equivalents.

Target Sectors and Industries:

- Architecture and Design.
- Construction.
- Engineering.
- Manufacturing.
- Real Estate Development.
- Urban Planning.
- Automotive and Aerospace.
- Government and public administration agencies.

Target Organizations Departments:

- Engineering.
- Design and Drafting.
- Project Management Office (PMO).
- Operations.
- Quality Assurance.
- Research and Development.
- Procurement.
- Information Technology (IT).

Course Offerings:

By the end of this course, the participants will have able to:

- Apply advanced AutoCAD commands.
- Create and use dynamic blocks.
- Utilize external references (Xrefs) for collaboration.
- Automate repetitive tasks with macros and scripts.
- Perform complex 3D modeling and rendering.
- Master data extraction from drawings.
- Customize the AutoCAD interface.
- Improve drafting speed and accuracy.

Course Methodology:

This training course uses a highly practical and case-study driven methodology. The program is built on real-world examples of successful advanced AutoCAD applications. Participants will work in teams to optimize a set of complex technical drawings, applying the tools and frameworks learned in the course. We will use interactive workshops to practice skills like LISP programming and sheet set management. The curriculum is designed to be a collaborative experience where participants can share their unique challenges and innovative solutions. Our trainers, with extensive experience in the field, will provide direct feedback and guidance throughout the course. BIG BEN Training Center is committed to providing a dynamic and practical learning environment, ensuring that participants leave with the skills and confidence to effectively use advanced AutoCAD.

Course Agenda (Course Units):

Unit One: Customization and Interface Management

- Customizing the user interface.
- Creating toolbar shortcuts.
- Setting up a personalized workspace.
- Keyboard macros and shortcuts.
- Working with palettes.
- Advanced system variables.
- Optimizing performance.

Unit Two: Advanced Drawing and Annotation

- Using dynamic blocks.
- Advanced line types and hatches.
- Working with fields and attributes.
- Data extraction for reports.
- Advanced dimensioning techniques.
- Plot styles and publishing drawings.
- Creating and managing templates.

Unit Three: External References and Collaboration

- Working with external references (Xrefs).
- Overlay vs. attachment.
- Managing complex Xref dependencies.
- Drawing compare and version control.
- Using sheet set manager.
- Best practices for collaboration.
- E-transmitting drawings.

Unit Four: 3D Modeling and Visualization

- Advanced 3D modeling commands.
- Working with solids, surfaces, and meshes.
- Creating rendered images.
- Adding lights and materials.
- Converting 2D to 3D.
- Creating cross-sections and details.
- Preparing models for 3D printing.

Unit Five: Automation and Scripting

- Introduction to Auto LISP and Visual LISP.
- Creating simple scripts.
- Developing custom commands.
- Automating repetitive tasks.
- Using scripts for batch processing.
- The future of AutoCAD automation.
- Implementing workflow optimization.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How can a deeper understanding of advanced AutoCAD commands and shortcuts and a proactive approach to automation empower design professionals to move beyond traditional methods and become strategic leaders in creating more accurate, efficient, and innovative projects?

What unique qualities does this course offer compared to other courses?

This training course is unique because it provides a dedicated, strategic focus on advanced AutoCAD commands and shortcuts. While other programs may cover general software use, our curriculum is designed to empower professionals with the specific skills needed to address the unique challenges of complex design work, from managing dynamic blocks to performing data extraction. The program is a hands-on experience, with exercises that directly simulate the challenges and decisions involved in a real-world drafting scenario. We go beyond theoretical concepts to provide a clear, actionable roadmap for balancing the demands of a complex project with the imperative of delivering a successful and well-documented outcome. This course is for professionals who want to lead their organizations toward a more efficient, profitable, and innovative future.