The Benefits of Using the Architecture Toolset in AutoCAD

A productivity study detailing the differences between AutoCAD® and the Architecture toolset

ARCHITECTURE
TOOLSET

The Architecture toolset (previously referred to as AutoCAD Architecture) is now included with AutoCAD as a specialized toolset. It is built specifically to create and modify software-based design and documentation productivity for architects.

Purpose-built architectural design tools help eliminate errors and provide accurate information to the user, allowing more time for architectural design. This study details the productivity gains that users may experience when using AutoCAD with the Architecture toolset rather than just basic AutoCAD when designing and documenting a building.

AUTODESK® AUTOCAD®
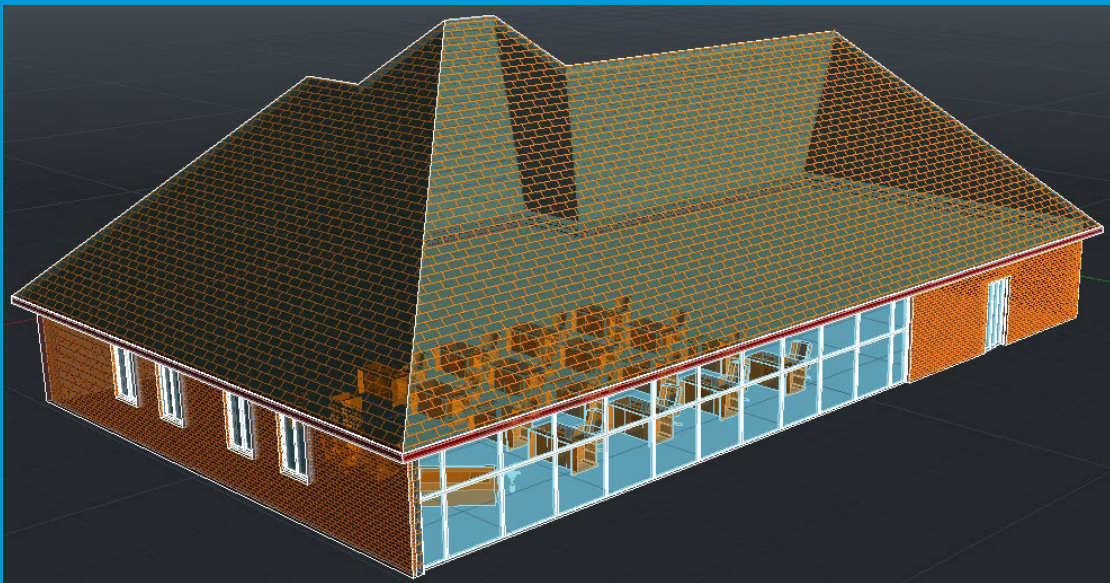
Benefits of the Architecture Toolset

The Architecture toolset brings dramatically increased productivity and significant time savings to common AutoCAD® architecture design tasks
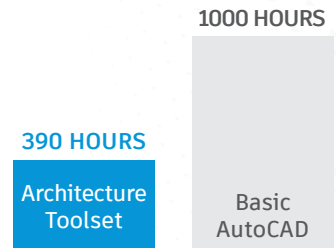
ARCHITECTURE TOOLSET

STUDY SUMMARY

Autodesk commissioned a study that compared basic AutoCAD to the Architecture toolset when performing nine tasks commonly used by architects.

Results showed that the Architecture toolset provided over **61% overall productivity gain*** compared with basic AutoCAD, when these tasks were performed by an experienced AutoCAD user.

61% Overall Productivity Gain*

1000 HOURS

390 HOURS

Architecture Toolset

Basic AutoCAD

HOW THE ARCHITECTURE TOOLSET SAVES TIME:

1. **Floor plans**
   (Time savings with the Architecture toolset up to 53%)
   Provides a huge library of thousands of predefined building objects that eliminate the need to manually develop symbols and styles such as wall styles, windows, doors, etc.

2. **Elevations**
   (Time savings with the Architecture toolset up to 79%)
   Uses the 3D model to generate elevations without the need to project lines from the floor plan, saving tedious 2D editing time required in basic AutoCAD.

3. **Reflected ceiling plans**
   (Time savings with the Architecture toolset up to 25%)
   Creates rooms and spaces from the 3D model, automatically creating outlines for rooms that also allow for the automatic creation of ceiling grids.

4. **Building sections**
   (Time savings with the Architecture toolset up to 65%)
   Uses the 3D model to generate building sections in the same way that elevations are quickly created, without the need to project lines from the floor plan.

5. **Sheet layouts**
   (Time savings with the Architecture toolset up to 71%)
   Uses the 3D model so no extra drafting is required to create

sheet views. The Architecture toolset contains additional sheet set tools that improve productivity and save time on sheet set creation.

6. **Details**
   (Time savings with the Architecture toolset up to 70%)
   Provides substantial time saving through its use of the 3D model and pre-designed multi-level blocks in the content library.

7. **Schedules**
   (Time savings with the Architecture toolset up to 65%)
   Necessary scheduling information is already in pre-drawn content library blocks. Schedules are easily created and refreshed after attribute information changes.

8. **Project modifications**
   (Time savings with the Architecture toolset up to 47%)
   Intelligent objects maintain their relationships, and design changes can be implemented quickly and easily with updates also reflected in elevations, sections, and details.

9. **Coordination and publishing**
   (Time savings with the Architecture toolset up to 36%)
   Contains additional built-in publishing tools that speed up the DWF publishing process. The DWFs published also contain all the necessary callouts required to link to the elevations, sections, and details in the project.

AutoCAD includes access to all AutoCAD vertical industry functionality as specialized toolsets. Take your work with you with the AutoCAD mobile app and the AutoCAD web app.

The Benefits of Using the MEP Toolset in AutoCAD

A productivity study detailing the differences between AutoCAD® and the MEP toolset

MEP TOOLSET

AUTODESK® AUTOCAD®

Benefits of the MEP Toolset

The MEP toolset brings dramatically increased productivity and significant time savings to common AutoCAD® MEP design tasks
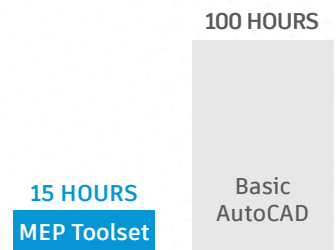
MEP TOOLSET

STUDY SUMMARY

Autodesk commissioned a study that compared basic AutoCAD to the MEP toolset when performing tasks commonly done by mechanical, electrical, and plumbing professionals in the building industry.

Results showed that the MEP toolset provided up to **85% overall productivity gain*** compared with basic AutoCAD, when these tasks were performed by an experienced AutoCAD user.

85% Overall Productivity Gain*

100 HOURS

15 HOURS
MEP Toolset

Basic AutoCAD

HOW THE MEP TOOLSET SAVES TIME:

1. **Project setup**
   *(Time savings with the MEP toolset up to **81%**)*
   The MEP toolset provides a huge library of MEP components, including MvParts, which allow for more productivity when setting up MEP designs in 3D.

2. **MEP – Electrical**
   *(Time savings with the MEP toolset up to **86%**)*
   Electrical workspace and Electrical design configurations allow for the full wiring circuit to be created for scheduling later, if required.

3. **MEP – HVAC**
   *(Time savings with the MEP toolset up to **81%**)*
   Working in 3D, the placement of ducting between items of equipment becomes much more manageable and less time-consuming. Extensive content library of HVAC MvParts is available.

4. **MEP – Piping**
   *(Time savings with the MEP toolset up to **91%**)*
   Piping plan can easily be set up using the MEP templates and the MEP Display Manager.

5. **MEP – Plumbing**
   *(Time savings with the MEP toolset up to **90%**)*
   MvParts provide an extensive library of plumbing fixtures and drainage items. Routing plumbing lines is quick and easy due to easy connection via the MvParts.

6. **Detailing and sheets**
   *(Time savings with the MEP toolset up to **84%**)*
   Provides extensive display configurations in specific sheet viewports which would otherwise need to be configured manually.

AutoCAD includes access to all AutoCAD vertical industry functionality as specialized toolsets. Take your work with you with the AutoCAD mobile app and the AutoCAD web app.

AUTODESK® **AUTOCAD®** 2022

CAD software to design anything — with time-saving specialized toolsets and AutoCAD web and mobile apps
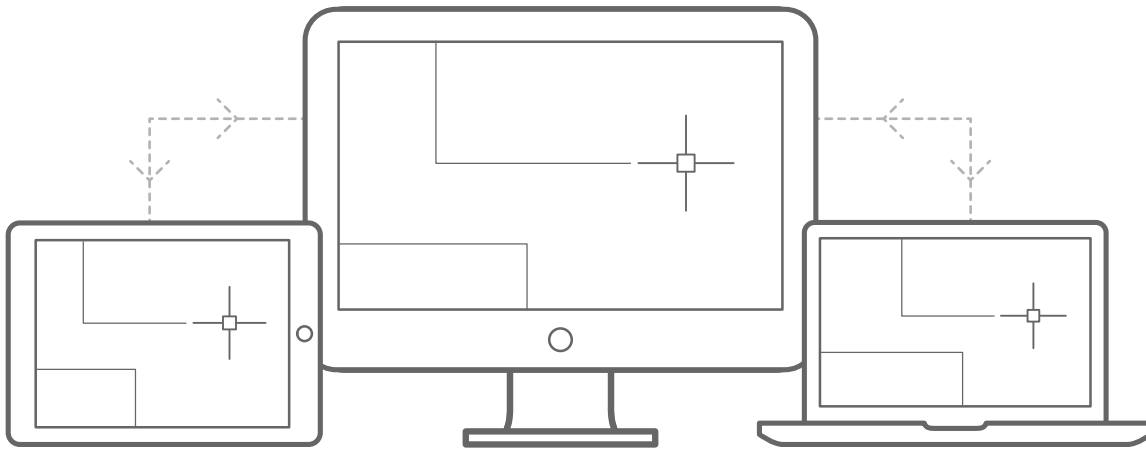
AutoCAD mobile app

View and edit your latest drawings in the field and on the go with a smartphone or tablet.

AutoCAD

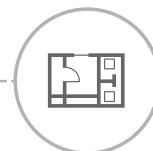Design in 2D and 3D across AutoCAD and seven specialized toolsets.

AutoCAD web app

View and edit drawings in a web browser on virtually any computer. No install required.

Mechanical

700,000+ intelligent manufacturing parts. Automate creation of bills of material.

Architecture

8,000+ intelligent architectural objects. Automate floor plans and elevations.

Electrical

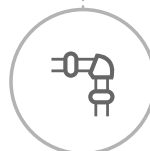65,000+ intelligent electrical symbols for electrical controls systems.

Map 3D

Incorporate GIS and CAD data to support planning, design, and data management.

MEP

10,500+ intelligent mechanical, electrical, and plumbing objects.

Plant 3D

Produce P&IDs and integrate into a 3D plant design model.

Raster Design

Edit scanned drawings and convert raster images into DWG objects.