Autodesk®

Autodesk® Utility Design

Design matters.

Productivity tools for intelligent networks.

Autodesk® Utility Design (AUD) is a comprehensive design productivity tool that lets you plan, design, analyze, and order materials for distribution networks—improving the speed, ease, and accuracy of utility design.

Utilities face challenges in several areas that affect their designers:

- **Increased workloads.** Urbanization, aging infrastructure, and sustainability initiatives require utilities to speed design cycles and increase accuracy.
- **Workforce turnover.** More than half of all utility workers plan to retire in the next five years. Experienced veterans—with deep industry, design, and service area knowledge—will be replaced by more tech-savvy employees with less utility specific experience.
- **Network reliability.** Utilities must improve reliability with right-sized, least-cost, and optimized networks and facilities.

- **Reduce layout time.** Use AUD to create graphical representations of distribution design, automatically gather material data for construction, and complete work orders. Set up the design environment for the way you work: assemble personal editing screens; create symbol palettes; and personalize menus, displays, report formats, and workspaces.
- **Improve material ordering accuracy.** Automatically load work order data into AUD's project explorer, improving accuracy and reducing data errors. Data created or modified in AUD can be seamlessly integrated back into SAP, eliminating duplicate entries and preserving data integrity.
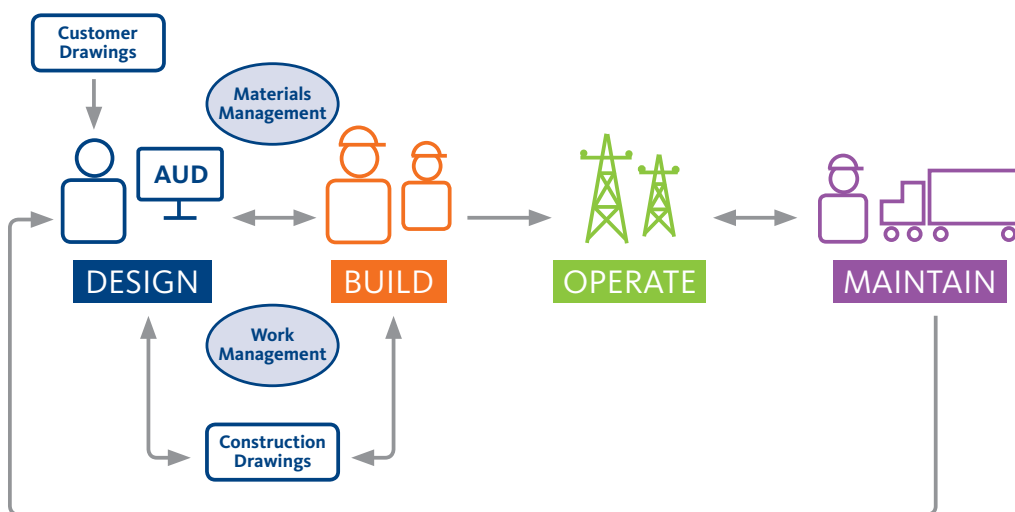
> "With AUD, when we create a work order map, we automatically gather the material for design, reducing manual entry into the materials system."
> —Kodi Ekker
> Idaho Power

Reliable Design

AUD helps design right-sized, least-cost, and best-engineered facilities that increase reliability and network efficiency.

- **Improve facility design.** A comprehensive set of engineering tools, including automatic guying, voltage drop calculations, and clearance checking, helps configure calculations and incorporate engineering standards. Consistent and informed choices about material, equipment, and facility sizing help optimize capital and operating costs across the board.
- **Automate design processes.** Leverage proven data interoperability technologies to integrate design data with work order management, materials ordering, and other downstream engineering calculations. AUD is compatible with all peripherals and data exchange formats supported by AutoCAD Map® 3D, so it's easy to share network design data.
- **Increase data accuracy.** Standardization and asset intelligence is built into the engineering process—eliminating duplicate data entry, decreasing design time, and streamlining data flow. It's easy to generate quick, accurate construction work orders, layouts, bills of materials, design scenarios, and estimated costs.

Efficient Design

Autodesk® Utility Design integrated tools let you build construction sketches, engineer new facilities, order materials, and estimate costs quickly and easily.

- **Leverage familiar interface and skills.** Built on AutoCAD® Map 3D, the CAD-based AUD is easier to adopt than purely GIS-based solutions. The familiar user interface lets designers complete work more easily and accurately.

> "Autodesk's full-scale solution is the first step toward creating an integrated system that leverages our engineering design information in the processes to build, operate, and maintain our assets."
> —Scott Gudeman
> Arizona Public Service

Intelligent Design

AUD incorporates design, geospatial, and asset information in one place—creating an environment for more intelligent designs. Build in standards, design workflow rules, and symbology for greater accuracy. Define rules based on industry standards or utility-specific needs.

- **Transfer knowledge.** Rules-based design helps retain valuable knowledge gained from veteran employees. AUD provides the guidelines both new and experienced staff needs to ensure accurate, consistent, and efficient design.
- **Onboard new designers quickly.** Leverage existing AutoCAD and AutoCAD Map 3D skills, reducing training costs and getting new workers up to speed sooner.
- **Import external data.** Import spatial information from external mapping and design systems, then export ODBC-compliant files in the formats you specify.

> "[AUD] allowed us to develop custom applications to automate time-consuming procedures. The functionality of AUD combined with our customizations has significantly improved our design process."
> —Ray Pearce
> Anchorage Municipal Light and Power

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