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The New Print Landscape for AutoDesk CAD Users

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Learning Objectives

- How to use print in today's AutoDesk / CAD environment
- Using software to monitor and estimate print costs and usage
- Solutions to help reduce shipping and share printed copies faster
- Workflows you can use to create effective documents

Description

Like all technology, the way AutoDesk CAD professionals use print as a tool is always in evolution. For what used to be a routine office task of printing, the needs are changing for Autodesk Professionals and all business users to manage print costs, work remotely with teams across geography, and share information fast to colleagues at home, off-site, and across town in paper form in compliment to the digital files we share. With work from home and remote offices on the rise, being able to not just print, but also share and collaborate annotated hardcopy prints is now a requirement to get work done at the speed of today without compromise.

Speaker(s)

Jacob Hardin is a Product Manager at Epson America for the SureColor® T-Series Line of Technical CAD and Graphics Printers. Jacob has an extensive background in Product Management and joined Epson in 2014, supporting several roles in the areas of Sales Enablement, Marketing, and Product Management of Epson Large Format Printers. Jacob currently holds a Bachelor's Degree from Kent State University, and a Master's Degree from California Lutheran University in Marketing.

So, why print for CAD?

1. **Large images convey a lot of visual information** and also a lot of scale detail. Also, using vector artwork and text allows scaling up of imagery while retaining that detail. Large prints have the ability to convey a lot of information quickly and succinctly. Thus, a large drawing with fine detail has the ability to communicate a lot of information, with required detail, in a short period of time.

2. **Print allows teams to collaborate around a project**. Viewing, and editing by marking up documents together is a straightforward method of editing, pointing out areas of concern, details, and making adjustments.

   a. Less effort in editing increases the likelihood that reviewers speak up about areas of concern and improvement. So, marking up documents is a free-flow process which encourages editing and collaboration.

   b. Physical prints have a dimensional feel. Taking designs from computer monitor to paper allows review sessions to be a tangible, constructive experience. In other words, the feel of stepping closer to the final product.

3. **Printed documents can be reviewed anywhere.** There's no laptop required and docs can be laid out on a table for everyone to see. Also, prints can be posted on a wall for team study or to be referenced at a later time, or any time, throughout the development process.

4. **Print is a tool for presentations.** Even in online meetings, prints can be referenced in conference calls to avoid slide fatigue. Using printed documents as a common reference image throughout the presentation keeps viewers engaged. Also, creating prints with multiple angles, cuts, and views also helps bring a dynamic element when presenting to clients and peers.

5. **Print can help secure and streamline the approval process.** Signatures are often tracked using printouts routed through all approvals. Also, information is difficult to alter on printed copies throughout this process, as well as signatures.

What printing tools are available today?

1. While CAD printers were somewhat limited in selection and features in the past, today's printers have expanded into three main classes to fit more specific needs: Home and Small Office CAD Printers, Mid-Size Office CAD Printers, and Production-Class CAD Printers.

    a. **Home Office:** Has a compact size, sleek design to fit home and small office environments, while retaining the ability to handle large rolls, network features, and IT security features.

    b. **Mid-Size Office:** These integrate larger cartridge sizes, some flash drive and network capability, built-in stands, and fast speeds which enable multiple workgroups and users to print multiple jobs quickly.

    c. **Production-class models**: Typically very high speed, high duty models. Some have stacking capability, increased amount of inks for printing on glossy media, and direct-to-rigid posterboard capability.

Are there ways to help monitor costs?

1. In the past, CAD printers did not provide many ways to see or estimate printing costs. **Accounting software has made it much simpler to monitor estimated ink costs.**

    a. One example is the Epson LFP Accounting tool. By inputting cost of cartridges and media used to print specific jobs, the software outputs an estimated overall cost to print that job. This information can be used to adjust cartridge sizes used, and estimate costs for specific accounting periods, as needed, over time.

    b. Many **new CAD printers have variable size ink cartridge options**, which provide more time in between cartridge changes, allowing users to select higher capacity cartridges for colors they use more. These can help manage costs, as higher capacity cartridges generally have a lower cost per mL.

2. **Paper saving is possible by using the full width of the roll**. In other words, printing multiple copies on a single sheet. Additional, entry level CAD printers have come down in price tremendously for printers within the Home/Small Office Category.

How can CAD printing enhance my workflow?

1. **Today's CAD printers have many connectivity options**, such as printing from Computers, from USB Flash Drives, Network-based files, or even printing wirelessly from Mobile devices and tablets. Some CAD printers have large format scanners integrated, allowing sharing of marked-up documents to USB flash drives, network folders, and Mobile devices.

   a. **Copying and scanning is also becoming essential to CAD users** to deliver copies to multiple teams, approvers, and state/local government approvers. More team members are working remotely across geographies than ever; increasing the need to share documents both in both print formats and digitally.

Does media make a difference?

1. **Bond is a great all-purpose media for rolling up and storing, and marking up documents**. It's a good all-purpose media to use for in-house reviews and collaboration. While bond is the most common amongst CAD professionals, there are more media types available for elevated purposes.

   a. **Single and Doubleweight matte papers are an option to present high-quality information.** Good for readability, line acuity, and enhancing colors, this thick, bright media can make an effective impression for presentations outside the office or for clients. It is recommended to keep 1-2 rolls on hand for these special instances where media quality can helpful in presenting designs.

   b. **Some CAD printers print on glossy papers, allowing print of photographic-style designs and renderings**. This application fits a final product presentation need, where color, appearance, and impression are most important. This is the media typically used for final-stage presentation of drawings and renderings.

   c. Not as widely known, but **some CAD printer models have the ability to print directly onto rigid poster board.** This is useful for printing out designs and transmitting directly hard-backed media without having to do any additional finishing. These printouts can be placed directly on an easel or hung on a wall for viewing or presenting.

   d. Specialty medias like Vellum and Polypropelene are also good for viewing against a lightboard or for documents that are going to be rolled and unrolled frequently.

Summing it all up:

Printing is important to the design process because it enables successful, impactful presentations and sharing of information. It also allows you to create rich looking, tangible materials that positively improve presentation impact for meetings and clients. It provides a snapshot of a phase in design process for markups, sharing, collaboration to move projects forward. And, it can help safeguard against copying, alterations, and assists approval flows.

Today's CAD printers provide several options over past generations of printers to fit where you print, how and how much you print, how many users you have and options to help keep your printing costs reasonable.