# Overview

AutoCAD design tools make specifying faster, easier and more accurate. Manual efforts are eliminated in the specification process, quick bills of materials are created, and integration becomes seamless into myProjects and the HomeWorks Designer software.

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Software Requirements and Download of Design Files

Software Requirements

- AutoCAD 2018 or later
- Lutron myProjects
- HomeWorks Designer software 16.0 and newer
- Windows compatible PC/Laptop

Download of Design Files

Below is a list of step-by-step instructions on how to download Lutron AutoCAD Design Files.

Available for download on:

- Lutron.com/CADDownloads
- Ketra.com/resources

1. On Lutron.com, click on the Service & Support tab, then under Technical Documentation & Support select CAD Downloads.

2. Click on a product or system. In this case, HomeWorks has been selected. Then click AutoCAD Tool Chests.
Software Requirements and Download of Design Files  
(continued)

Download of Design Files  
(continued)

3. Once AutoCAD Tool Chests is selected, the following Design Files will appear. Click on a Design File and download.

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Software Requirements and Download of Design Files (continued)

Download of Design Files (continued)

1. On Ketra.com, click on the drop down in the top left corner of the screen. Click Resources and select Technical Documents.

Manual Installation of Design Files - AutoCAD 2018 or later

Below is a list of step-by-step instructions on how to manually install AutoCAD profiles, tool palettes and all included tools for AutoCAD 2018 or later.

1. To install the block files, navigate to the C:/drive and create a new folder in the root directory – name the folder **Lutron**.

2. Download the file **Tools by ZenTek.ZIP** from the Lutron website and place it in the Lutron folder – this folder contains all the block files. Right-click on the file and select **Extract Here**.

3. To install the tool palettes, extract the folder **ToolPalettes** and place it in the Lutron folder – this folder contains all tool palette references.
Manual Installation of Design Files - AutoCAD 2018 or later (continued)

4. To install and activate the Lutron profile(s), extract the file Lutron.ARG from the Lutron folder on the C:/drive. Launch AutoCAD and start a blank drawing. Click on the A in the top-left corner to open the AutoCAD menu and select **Options**.

5. Select the **Profiles** tab and click **Import**.

6. Browse to the Lutron folder on the C:/drive, and select the Lutron.ARG file. An Import Profile window will appear, click **Apply & Close**.
Manual Installation of Design Files - AutoCAD 2018 or later (continued)

7. Under available profiles, highlight Lutron and click Set Current.

8. To install the data extraction file, extract the file Lutron.DXE from the Lutron folder on the C:/drive. This file will be referenced by AutoCAD to extract Lutron design data from the drawing. When running data extraction for the first time, browse to the Lutron.DXE file in the Lutron folder on the C:/drive. The Lutron Design Files have been successfully installed into AutoCAD.
Installation of Design Files – AutoCAD 2020

Below is a list of step-by-step instruction on how to install AutoCAD profiles, tool palettes and all included tools for AutoCAD 2020.

1. To install and activate the Lutron profile(s), extract the file Lutron.ARG from the Lutron folder on the C:/drive. Launch AutoCAD and start a blank drawing. Click the A in the top-left corner to open the AutoCAD menu and select Options.

2. Select the Profiles tab and click Import.
Installation of Design Files – AutoCAD 2020 *(continued)*

3. Browse to the Lutron folder on the C:/drive and select the Lutron.ARG file. An Import Profile window will appear, click Apply & Close.

4. Under available profiles, highlight Lutron and click Set Current. The Lutron Design Files have been successfully installed into AutoCAD.
Lutron Design Files and AutoCAD Tool Palettes

Tool Palettes

In the command line, type **Tool Palettes**, then choose the desired palette from the tabs on the right-hand side.
Lutron Design Files and AutoCAD Tool Palettes (continued)

Switching Profiles
Click the gear icon on the left-hand side, then select the desired profile. In this case, HomeWorks + Ketra Type X is selected.

Switching Tool Sets
Click on the bottom tab on the right-hand side to extend the list of product categories.
Data Extraction to .CSV File

Below is a list of step-by-step instructions on how to successfully complete a data extraction from AutoCAD to a .CSV file.

1. Type in the command line, Data Extraction.

2. Select Create a new data extraction, click the “…” and choose the desired template. Next, select the Lutron.dxe file in the C:/drive and click Open. Then click Save to save the data extraction file.

3. Select Drawings/Sheet set, then click Next.
Data Extraction to .CSV File (continued)

4. Click **Display blocks only**, then select the objects from which to extract data. Click **Next**.

5. Select the following properties to extract; **AREA, LTRNCADSYM, NAME, PRODUCT, PRODUCT_TYPE**.

6. Refine data, if needed, click **Next**.
Data Extraction to .CSV File (continued)

7. Select Output data to external file, click the “…” and choose the desired template. Click Next.

Optional: Follow the step-by-step instructions below to insert a Bill of Materials onto a drawing.

7a. Select Insert data extraction table into drawing, click the “…” and choose the desired template. Click Next.

7b. Default: Manually setup table. Enter a title for the table, click Next. Below is an example of a complete Bill of Materials table.
Data Extraction to .CSV File (continued)

8. Click **Finish** to complete the data extraction.
Import to myProjects

Below is a list of step-by-step instructions on how to import a .CSV file to myProjects.

1. Open the saved data extraction, as described in the section **Data Extraction to .CSV File.**

   ![Data Extraction Table]

   2. Change **Count** to **Quantity**. Then in the **AREA** and **NAME1** columns, add in the control location – these need to be unique to each line item.

   ![Quantity Table]

   3. Login to myLutron.com, click **Add Project** in the top right-hand corner to create a new project.

   ![Add Project]

   4. In the top left-hand corner, click the **Revisions** drop-down and **drag or select a file to Import.**

   ![Revisions Drop-Down]

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LUTRON  Projects  Shop  Orders  Resources

Search   Add Project

Filter by

0 of 0 Projects
Import to myProjects *(continued)*

5. When the line items are successfully imported, click **Import**.

6. A quick bill of materials has now been created in myProjects. Further edits can be made before exporting into the HomeWorks Designer software 16.0 or newer.
HomeWorks Designer Software

Below is a list of step-by-step instructions on how to export from myProjects to HomeWorks Designer.

1. Open HomeWorks Designer software Version 16.0 or newer. Under Create a new Project, select From myProjects.

2. In the Project Setup Guide, under Project and Design, select a project to import and the correct revision. Follow the remaining steps on the left-hand side and click Finish.

3. Project has been successfully imported.
Best Practices

Stamping AutoCAD Blocks

Select a Tool Palette, then click the desired block and insert into the drawing. To change tool palettes, refer to Lutron Design Files and AutoCAD Tool Palettes.

Layer

In the command line, type Layer. Each product and product line have an individual layer associated with them.

Hatch Layer

Each product and product line have an individual hatch layer associated with them and can be toggled On and Off independently. Below is an example of the hatch layer turned Off on the drawing.
Best Practices (continued)

Snap Points

Midpoint
Midpoint allows for blocks to snap to the midpoint of any line on a drawing. The example below is a Midpoint Object-Snap.

Endpoint
Endpoint allows for blocks to snap to any endpoint on a drawing. This is used to specify precise locations and line up points. The example below is an Endpoint Object-Snap.
Best Practices (continued)

Shades

Selecting and Placing Shades

Select Shades within the Tool Palette(s) and insert into the drawing.

Rotating Shades

Place a shade on the drawing, then in the command line, type Rotate and click the arrow to rotate the shade to the desired location.

Adjusting Shade Length

Linear dynamic blocks can be adjusted by clicking the arrow and stretching the block to the desired length. Below are examples of adjusting shade lengths.
Best Practices *(continued)*

**Editing Attributes**

An **Edit Attributes** box will appear with each block placed on a drawing. **Edit Attributes** shows the block name and allows for a Name and Area of the block to be entered (optional). Click OK when complete.

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**Wireless Ranges**

**Clear Connect Wireless – Type A**

Below is a screenshot showing the usage of the 30 ft (9 m) Clear Connect Wireless - Type A radius which represents the recommended distance from the device to the repeater. This can be used to verify proper wireless coverage and the need for additional repeaters on the link.

**Clear Connect Wireless – Type X**

The following screenshot demonstrates the usage of the 71 ft (21.6 m) and 25 ft (7.6 m) radii which are used with Clear Connect Wireless – Type X applications. The 71 ft (21.6 m) radius represents the range that all devices assigned to a Clear Connect Gateway – Type X must be within and the 25 ft (7.6 m) radius is used for both of the following verifications:

1. At least two Clear Connect Wireless – Type X devices must be within 25 ft (7.6 m) of their gateway.
2. Each Clear Connect Wireless – Type X device must be within 25 ft (7.6 m) of 2 other devices on the subnet.