2021 PRODUCT BROCHURE

FIRECAD® 2021

Powered by
AUTODESK®
AUTOCAD® OEM

A AUTODESK

CADGEN SOFTWARE LLC

CADGEN SOFTWARE LLC

AUTODESK
Authorized Developer

FLEXIBLE. RELIABLE. PERPETUAL.

CADGEN FIRECAD™ IS THE COMPLETE SOLUTION YOU NEED TO PRODUCE FIRE AND SECURITY DESIGNS.

Cadgen Software LLC was founded from the ground up to fill the void in reliable CAD automation tools for the Fire and Security industry. The team behind FireCAD™ has a collective 70 years of exclusive experience in the Fire industry, and this experience is what makes our products surpass the competition.

FireCAD™ was designed by engineers and CAD designers to maximize efficiency, AHJ approval rates, and cut design time in half. Combine all this with a software development team with 15 years of providing Autodesk® software solutions, and you get a world class product.

By leveraging AutoCAD® OEM as our robust and feature rich platform, we have the ability to exclusively work on features related to improving Fire and Security design, while providing you with the standard platform features you can count on.

Consistency in design output is important. Feel free to use your existing DWG templates, title blocks and drawing standards. Your existing blocks can also be used to define your devices. We will help you set up master SQL project templates which the CAD operator can choose from when starting a new project, containing the applicable parts for the project and circuit requirements.

If you are a small business owner and also serve as your own CAD operator, rest assured that there are many online resources available and extensive help in getting familiar with the base platform drawing features and commands, and we include 6 months of remote technical support in each license. On-site training is available for an additional fee.

ROBUST & COMPLETE USER INTERFACE

## DESIGNED BY FIRE INDUSTRY PROFESSIONALS

- TESTED AND IMPROVED WITH HUNDREDS OF REAL WORLD PROJECTS
- HANDLES THE MOST DEMANDING APPLICATIONS
- DESIGNED FOR EASE OF USE

INDUSTRY STANDARD PLATFORM

- CADGEN FIRECAD™ IS POWERED BY AUTODESK® AUTOCAD® OEM 2019
- PERPETUALLY LICENSED
- NATIVELY DWG FILE COMPATIBLE
- ALL THE LATEST PLATFORM FEATURES (DRAWING COMPARE, PDF IMPORT, XREFS, LAYOUT SHEETS AND PLOTTING) ARE INCLUDED
- AUTOCAD® EXPERIENCED DESIGNERS WILL FEEL RIGHT AT HOME!

FLEXIBLE DATABASE MANAGEMENT

- THE INCLUDED DATABASE MANAGEMENT UTILITY IS DESIGNED FOR EASY CONFIGURATION OF ALL PART TYPES
- ARBITRARY CIRCUIT TYPES OFFER MAXIMUM FLEXIBILITY
- MANUFACTURERS CAN PROVIDE OFFICIAL PRODUCT DATABASES HOSTED IN THE CLOUD OR ON A SERVER
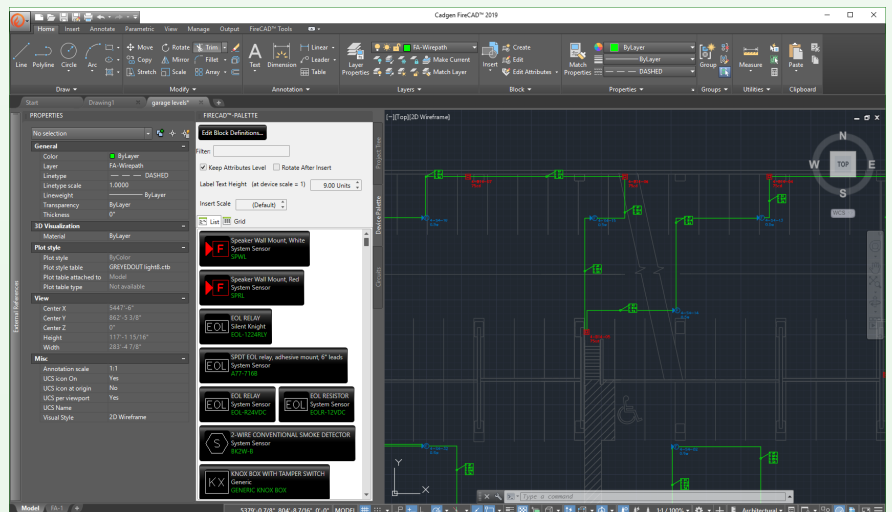
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EASY PROJECT SETUP

- UTILIZE PROJECT TEMPLATES TO MINIMIZE SETUP TIME & MAXIMIZE COMPLIANCE

- MANAGE & ASSOCIATE MULTIPLE PROJECT DRAWINGS

DATABASE MANAGEMENT TOOLS

- COMPLETE DATABASE MANAGEMENT UTILITY INCLUDED

- CAN BE USED BY A MANAGER OR MANUFACTURER TO SEPARATELTY CONFIGURE DEVICES, CIRCUIT REQUIREMENTS AND STANDARDS

- CUSTOMIZABLE DYNAMIC LABEL PROPERTIES FOR DEVICES AND WIREPATH LABELS
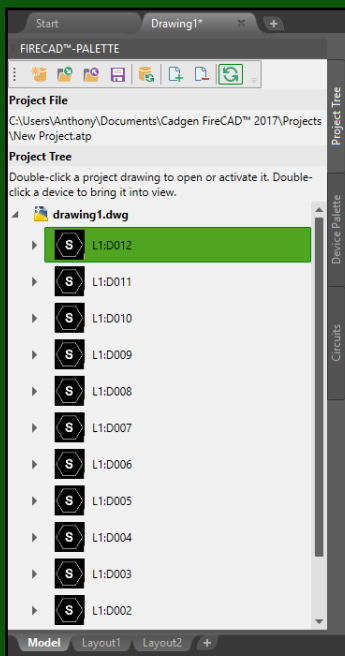
PROJECT CREATION WIZARD

The Project Creation wizard allows the CAD designer the option to start a blank project, or connect to any valid master SQL parts database on the client machine, internal company server, or even a cloud based database service and select from predefined groups of equipment required for the specific project. These 'template groups' contain devices configured to your standards, or can be set to manufacturers' specifications.
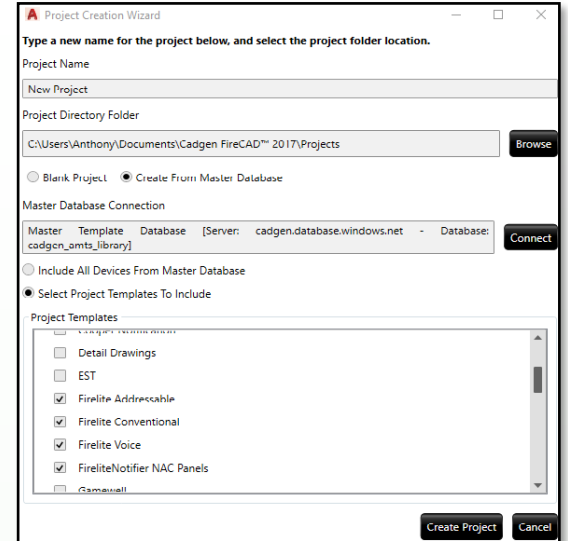
Organization into logical template groups ensures specification compliance by allowing the CAD designer to quickly start a project with the panels, circuits and devices ready to place and connect without getting bogged down by selecting from a confusing list of thousands of parts with subtle part number differences each time a device is selected.

For example, a template group of all of a manufacturer's 'White, Alert, Clear Lens' devices can be selected, along with a template containing the specified manufacturer's addressable control equipment and modules. Additional template groups required can be added to the project at any time if specifications should change.

PROJECT TREE & DRAWING MANAGMENT

Each project database is stored in a project folder which contains all drawing files that are associated with the project, and optionally any other supporting documents or attachments related to the project or drawing. The user may store the project folders locally (recommended) or even on a network location. The project folders may also be copied and shared with others, and will contain all data required to open and modify the project.

The main application palette contains a toolbar for adding/removing project drawings, and a helpful tree of devices on the drawing. Double clicking the drawing or a device will open the drawing from the project folder or zoom to the selected device in the drawing modelspace.

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EASY DEVICE PLACEMENT AND SELECTION

- SEARCHABLE DEVICE PALETTE TO QUICKLY FIND AND INSERT A DEVICE

- OPTIONS TO ROTATE AND AUTO LEVEL DEVICE ATTRIBUTES

- DEVICES SUPPORT TRADITIONAL COPY AND INSERT COMMANDS

- SHOW AND HIDE DYNAMIC COVERAGE DISPLAYS

- REPLACE EXISTING BLOCK REFERNCES WITH DEVICES

DEVICE PALETTE

The Device Palette offers a searchable list of all project devices to choose from. Simply click a device button to insert the device into the drawing. Extra options are available to keep attributes level, and also to rotate after insert.

Any device with output circuits will automatically prompt for an optional panel or module name which can dynamically be used to be displayed in the device label. Devices that require incoming circuit selections will prompt the user to configure the proper settings required.
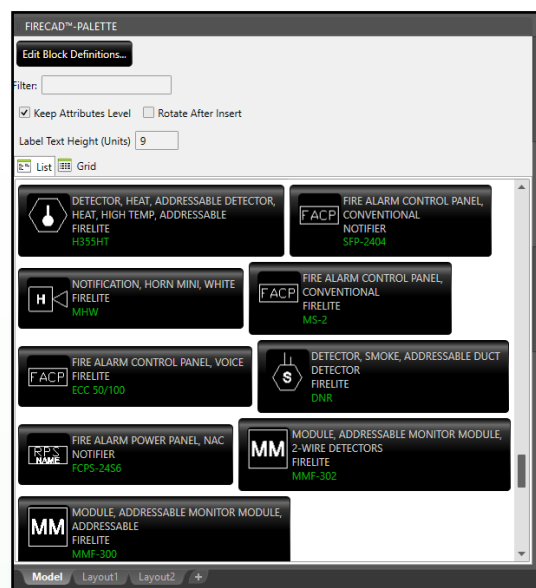
After inserting and configuring a device from the palette, traditional copy and insert commands can also be used to add the device to the proper locations.

DYNAMIC COVERAGE DISPLAY

Coverage display can be turned off for any selection of devices, using quick select commands or selecting the areas you want to display. These coverage overlays are displayed transparently to easily see where there is overlapping or not enough coverage. In the event you have multiple setting for a device, these coverage areas adjust dynamically as you change connected or unconnected devices. The device configuration database allows you to easily configure the coverage area, width and height for each circuit setting.

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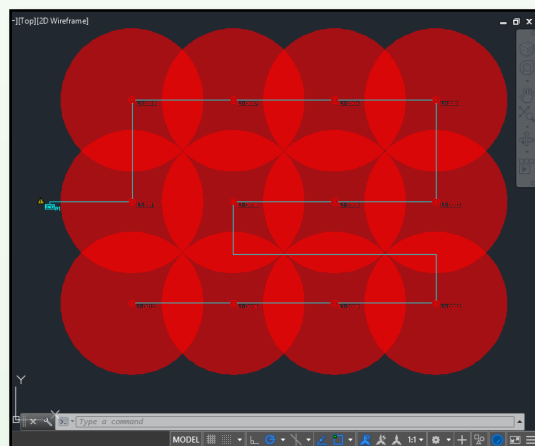
INTUITIVE CONNECTION CONTROLS

- CONNECT, DISCONNECT, INSERT DEVICES

- DYNAMIC HIGHLIGHTING OF DEVICES AVAILABLE TO CONNECT

- LIVE LIMIT FEEDBACK AND VOLTAGE DROP CALCULATION DATA

- COMPLETE PASS-THROUGH RISER CIRCUIT CALCULATION TOTALS (E.G. AMPLIFIER AUDIO CIRCUIT)

- ADDRESS LOCKING AND AS-BUILT REVISION TOOLS TO ASSIGN FIELD ADDRESSES

OPTIONAL CIRCUIT LIMIT VALUES

- TOTAL CIRCUIT LENGTH (USES ACTUAL WIREPATH SEGMENT DISTANCES, OR ORTHO MEASUREMENT IF NO WIREPATH IS USED)

- TOTAL CIRCUIT WATTAGE

- TOTAL CIRCUIT CURRENT

- SLC DEVICE QUANTITY (SHARED OR UNSHARED SUPPORTED)

- QUANTITY LIMIT BASED OFF OF CIRCUIT TYPES YOU DEFINE

CONNECTION PALETTE

After placing and devices, the connection palette is the complete control center for selecting an available circuit and connecting devices. Intuitive controls to connect, disconnect, and insert guide the user to making sure everything is connected.

Live limit feedback is provided in the interface as for each device is connected, and these limits are completely configurable in the database.
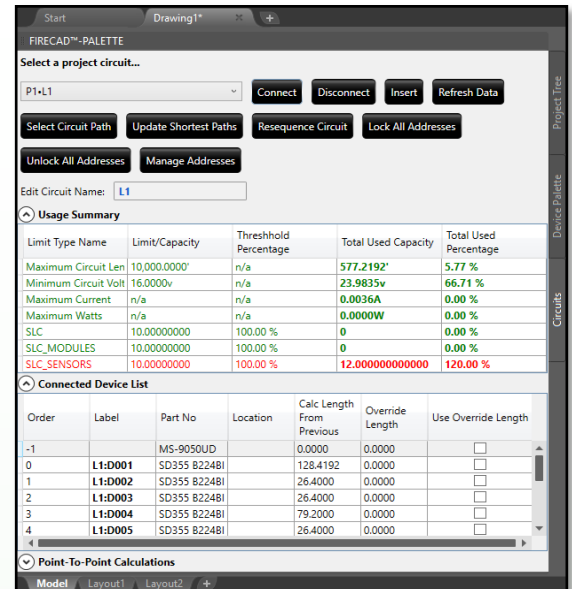
Other features are available to override addresses for as-built revisions, and to lock addresses so that subsequent modifications do not change addresses that may already be assigned in the field.

DYNAMIC DEVICE HIGHLIGHTING

While the connection commands are active, helpful highlight displays show the user all compatible devices that have an available connection. This makes large confusing jobs much easier to complete. In addition, devices with circuits that aren't connected optionally have an alert symbol in the project palette and in the drawing modelspace to let the user know they still need connect it to a circuit.
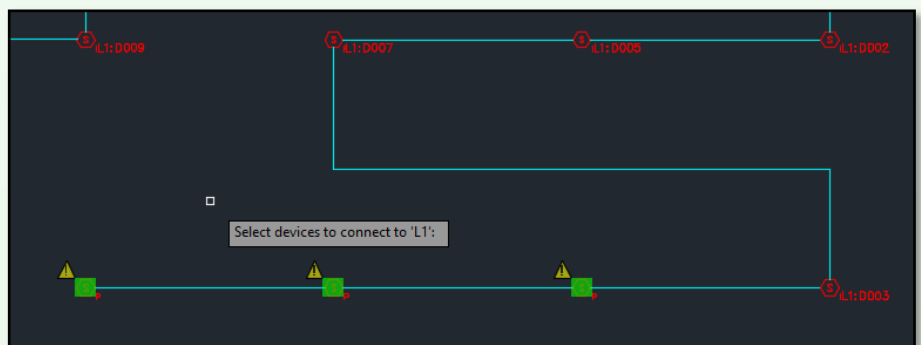
AUTOMATIC WIREPATH LABELING

- **FULLY CUSTOMIZABLE LABELS CAN BE FORMATTED WITH DYNAMIC PROPERTIES**

- **OPTIONALLY SET CONDUIT TYPE AND SIZE AND CALCULATE CONDUIT FILL**

- **OPTIONALLY DISPLAY CONDUCTOR COUNT**

WIREPATH LABELING

Wirepath labels can be generated automatically and are fully customizable to optionally include dynamic properties cable label, AWG, conductors, panel, and circuit information.
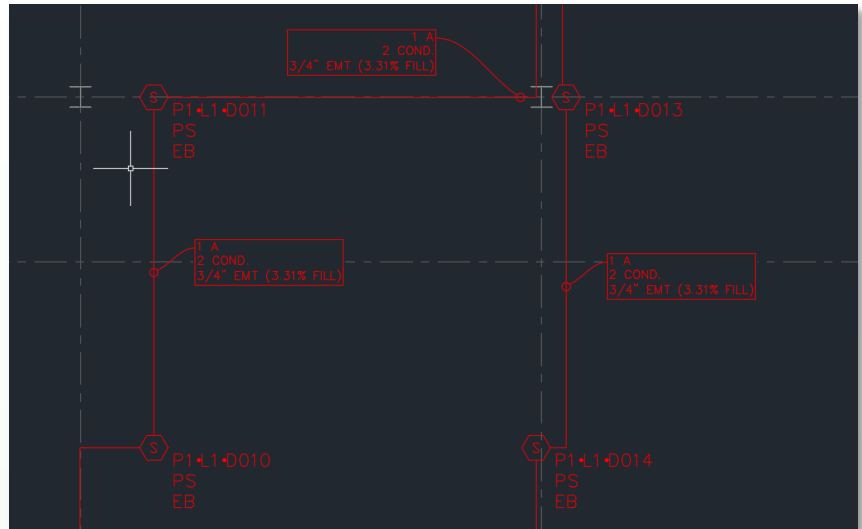
CONDUIT TYPE AND FILL CALCUATIONS

Wirepaths can simply indicate cable quantities, or can also be easily associated with a conduit type and size to also calculate a fill percentage. Conduit types and sizes can be easily assigned to any selection of segments. Cable quantity, conductor count, and conduit fill can be shown and hidden independently of one another, depending on the project requirements.

BUILT IN REPORTS (NATIVE TABLE ENTITIES)

- DEVICE LEGEND

- BILL OF MATERIAL

- POINT-TO-POINT VOLTAGE DROP

- LUMP SUM VOLTAGE DROP

- ADDRESSABLE DEVICE SCHEDULE

- SPEAKER SCHEDULE / DECIBEL LOSS

- CABLE AND WIRE LEGEND

- BATTERY CALCULATIONS

AVAILABLE EXCEL EXPORTS

- FULL RAW DEVICE AND CONNECTION DATA

- POINT-TO-POINT VOLTAGE DROP

- ADDRESSABLE DEVICE SCHEDULE

- SPEAKER SCHEDULE / DECIBEL LOSS

REPORTS

A full complement of reports have been added which generate native table entities ready to arrange in your drawing. In addition, you may export all project data to an Excel file for use in your own templates or backend processes.
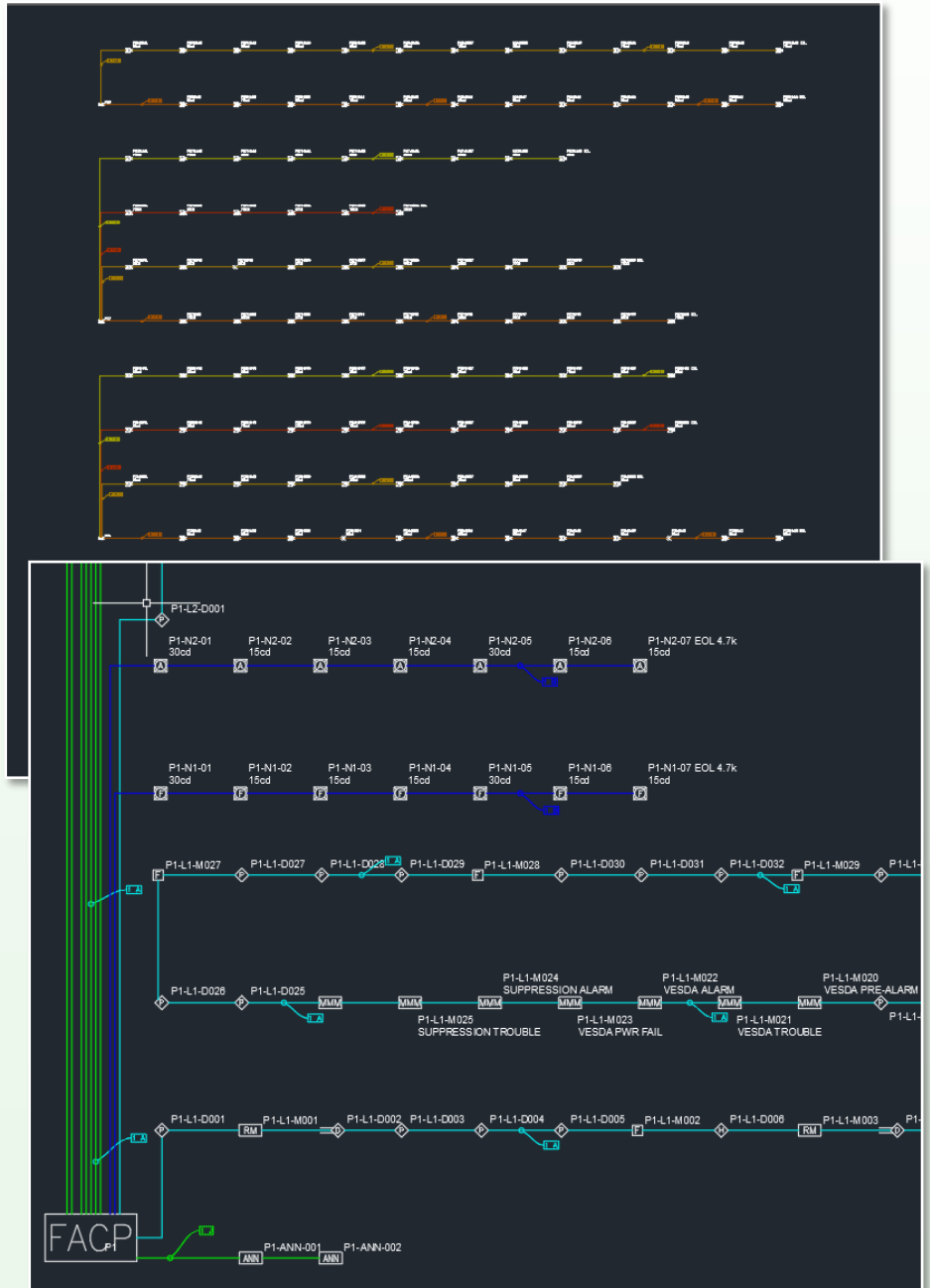
FULLY CUSTOMIZABLE RISER GENERATION TOOLS

- FULL PROJECT RISER GENERATION

- RISER BY SELECTION

- ASSIGN LEVELS TO DEVICES

- ASSIGN RISER COLUMNS ON SELECT RISER STYLES

- SHOW T-TAPPED CONNECTIONS

- DISTINCT CIRCUIT LAYOUT STYLES

- WIREPATH LAYOUT STYLE

RISER GENERATION

Riser generation is truly one of the most intricate problems to solve, and each project is unique in complexity. We have added a number of layout styles and options make to this process easier.

Fast advanced algorithms are used to layout devices depending on your selections to get the riser that looks the best for your application. When you find the perfect settings, these are saved in your project folder so that subsequent riser generation produces a consistent output.

System requirements for Cadgen FireCAD™ 2019

Operating System	• Microsoft® Windows® 7 SP1 with Update KB4019990 (64-bit) • Microsoft Windows 8.1 with Update KB2919355 (64-bit) • Microsoft Windows 10 Anniversary Update (64-bit only) (version 1607 or higher)
Processor	**Basic:** 2.5–2.9 GHz processor **Recommended:** 3+ GHz processor
Memory	**Basic:** 8 GB **Recommended:** 16 GB
Display Resolution	**Conventional Displays:** 1920 x 1080 with True Color **High Resolution & 4K Displays:** Resolutions up to 3840 x 2160 supported on Windows 10, 64 bit systems (with capable display card)
Display Card	**Basic:** 1 GB GPU with 29 GB/s Bandwidth and DirectX 11 compliant **Recommended:** 4 GB GPU with 106 GB/s Bandwidth and DirectX 11 compliant
Disk Space	6.0 GB
Browser	Google Chrome™
Network	Outgoing Internet access required for connection to license server to activate and de-activate licenses, and connect to online Azure server parts databases.
Pointing Device	MS-Mouse compliant
.NET Framework	.NET Framework Version 4.7.1

Additional Requirements for large datasets, point clouds, and 3D modeling

Memory	8 GB RAM or more
Disk Space	6 GB free hard disk available, not including installation requirements
Display Card	1920 x 1080 or greater True Color video display adapter; 128 MB VRAM or greater; Pixel Shader 3.0 or greater; Direct3D®-capable workstation class graphics card.