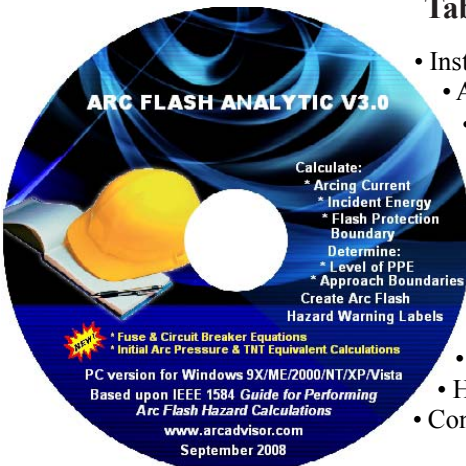# ArcAD

Arc Flash Analytic v3.2
User Guide

PC version for Windows 9X / ME / 2000 / NT / XP / Vista

Arc Flash Hazard Analysis and Label Making
Without the Fuss

Table of Contents

ARC FLASH ANALYTIC V3.0

Calculate:
* Arcing Current
* Incident Energy
* Flash Protection Boundary
Determine:
* Level of PPE
* Approach Boundaries
Create Arc Flash Hazard Warning Labels

NEW! * Fuse & Circuit Breaker Equations
* Initial Arc Pressure & TNT Equivalent Calculations

PC version for Windows 9X/ME/2000/NT/XP/Vista
Based upon IEEE 1584 *Guide for Performing Arc Flash Hazard Calculations*
www.arcadvisor.com
September 2008

Getting Started

Installing Arc Flash Analytic version 3.2

• Download installation wizard to your PC or insert the installation CD into CD drive.
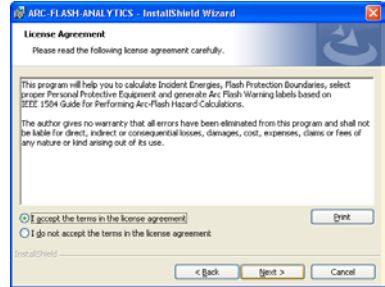
Arc Flash Analytic v3.2 package comes in form of a single executable file named *<afav32_setup.exe>*.

• Double click the EXE file icon to launch the installation wizard.

The installation wizard will check your system files and may attempt to install updated runtime resources.

• Click Next button to proceed
• Review and accept terms of license agreement

• Click Next button to continue

• Follow instructions to complete the installation
• Click Finish button to close the installation wizard and launch the program

About the program

Arc-Flash-Analytic v3.2 (AFA v3.2) is a powerful, easy to use Windows based program developed to assist in performing arc flash and shock hazard analysis in low and medium voltage power systems. With Arc-Flash-Analytic, it is also easy to create customized arc flash warning labels, reducing the cost of obtaining compliance with NFPA 70E and Canadian CSA Z462 standards.

AFA V3.2 Key Features

IEEE 1584 EMPIRICALLY DERIVED MODEL AND LEE METHOD
Applicable for systems with voltages in the range of 208V to 46kV, short circuit currents in the range of 700A to 106kA, switchgears, MCC, panels, cables and arc in open air.

IEEE 1584 FUSE EQUATIONS

Applicable for systems protected by current limiting Class RK1 and Class L fuses.

IEEE 1584 LOW VOLTAGE CIRCUIT BREAKER EQUATIONS
Applicable for systems protected by molded case, insulated case circuit breakers (MCCB & ICCB), or LVPCB low voltage power circuit breakers.

AFA V3.2 Key Capabilities

1) Determine

> √ Arcing current
> √ Incident energy
> √ Flash protection boundary
> √ Limited, restricted, prohibited shock approach boundaries
> √ Initial arc pressure
> √ Arc TNT explosive equivalent
> √ Hazard risk category
> √ Typical clothing system

2) Save calculation results for future reference or printing.
3) Generate arc flash warning labels in electronic JPG and BMP formats
4) Customize labels by selecting and adding information displayed on them.
5) Perform analysis using metric, imperial units, or a mix of both
6) Create warning labels in English, French or Spanish languages

Registering the program

- *Click on Windows START button*
- *Select ARC-FLASH-ANALYTIC from All PROGRAMS Program Manager*
- *Click on Launch AFA 3.2 icon to launch the program*

First time you launch the program, you will need to register it and unlock the program features inactivated in unregistered / demo version.

- *Click on Help menu*
- *Select Register option*
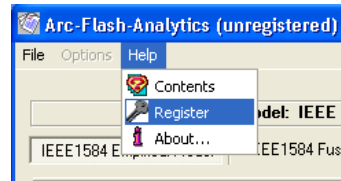
Registration screen will pop up.

Enter your individual registration credentials including your first and last names, company name and your license key exactly as they appear on a letter or email accompanying your AFA v3.2 purchase.

NOTE

**Registration key comes with the purchase of the software.
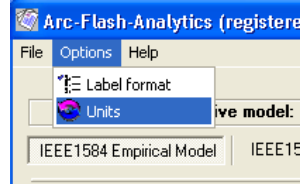Please contact us for your individual registration key.**

Options Menu

Use *Options* to view and modify units of measurement and label layout settings.

Units of measurement

• *Click on Options menu and select Units.*

The *Units* screen will pop up showing default units of measurement for input and output data.

This feature allows you to switch units of measurement for a wide variety of input and output data including protection boundaries, incident energy, working distance, arc flash initial pressure, arc flash explosive equivalent and more. The program would also automatically convert all relevant values to new units of measurement including input, output data and label readins.
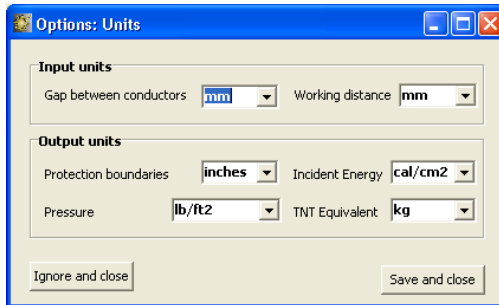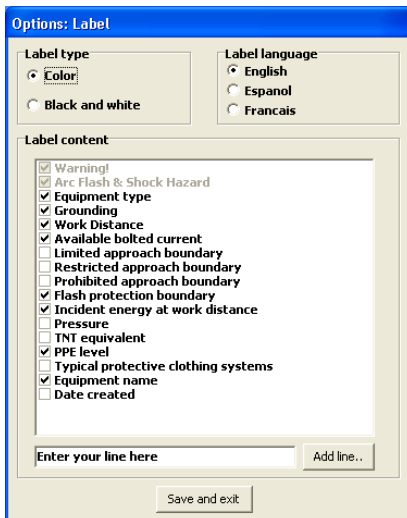

Label Format

• *Click on Options menu and select Label Format*

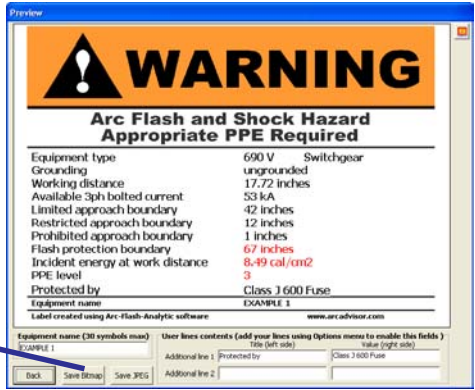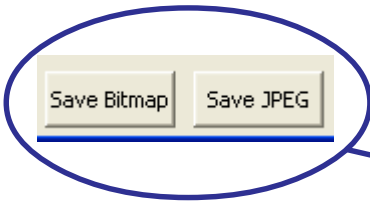The *Label format* screen will pop up showing preset label type, language, label layout and label content.
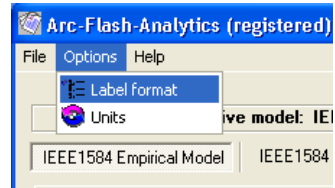
You can add or modify the list of information displayed on the label.

Saving Label

From *Label Preview* window, click on *Save JPG* or *Save BMP* buttons to save the label in any one of the available electronic formats.


You will need standard laser or inc jet printer to produce warning labels created using Arc Flash Analytic software.

Note: We offer label printing services. Please visit www.arcadvisor.com website or contact us for more information.

Saving Calculation Results

By pressing *Save Results* button from *Calculation Results* screen, the results could be saved to a text file for future reference or printing.
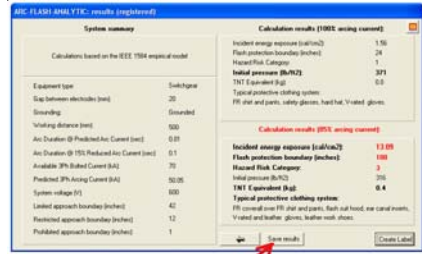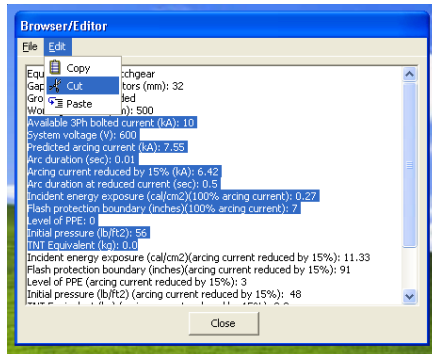

Opening Results Files

• *Click on Open from File menu to open an existing results file, inspect its current content, do simple editing operations including Cut, Copy and Paste to and from the clipboard, Save and Print*
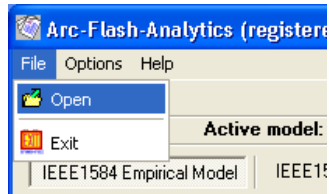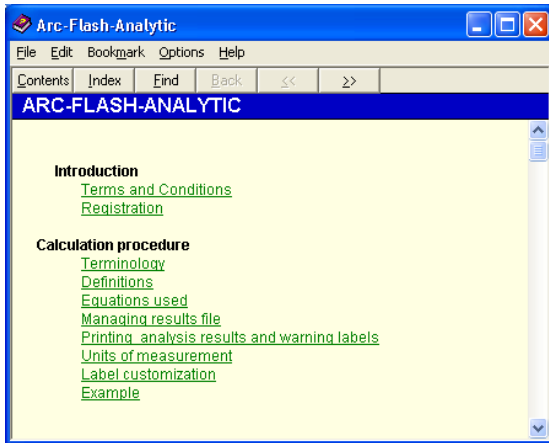

If you need more complex editing, import the file into your favorite text manipulation processor MS Word for example and do what you need to do.

Help About the Program

If you have any question or problems with installation, running the program, arc flash hazard analysis, or creating warning labels using the program tool, please check the program Help or contact us.
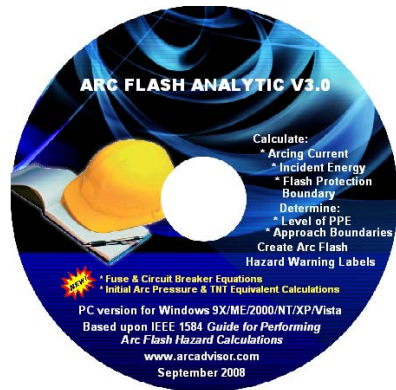

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