

**WARNING**

**Arc Flash and Shock Hazard**  
**Appropriate PPE Required**

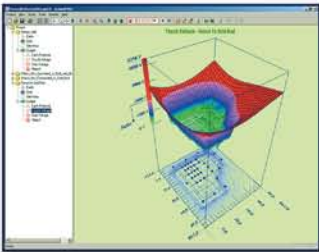
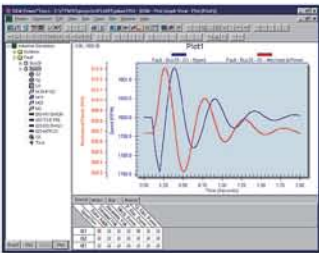
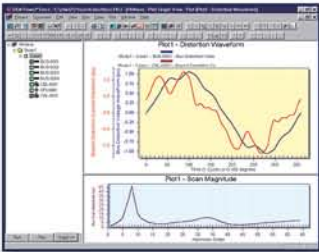
82 inch	Flash Hazard Boundary
2.7 cal/cm <sup>2</sup>	Flash Hazard at 36 inches
Category 1	FR Shirt & Pants
4160 VAC	Shock Hazard when cover is removed
1	Glove Class
60 inch	Limited Approach
26 inch	Restricted Approach
7 inch	Prohibited Approach

**Location: 010-MTR 10**

**SKM** Systems Analysis, Inc.  
SKM Systems Analysis, Inc.  
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Manhattan Beach, CA 90266  
(800) 232-6789

Job#: 232874 | Prepared on: 06/06/06 | By: Engineer

Warning: Changes in equipment settings or system configuration will invalidate the calculated values and PPE requirements



# SKM Power\*Tools<sup>®</sup>

## Price List



- ◆ **DAPPER® *Integrated Electrical Analysis Software***  
Comprehensive Three Phase Short-Circuit Studies, Load Flow Study, Demand Load Study, Feeder and Transformer Sizing Study, Impact Motor Starting Study, and Load Schedules. (Unbalanced Studies also available)
- ◆ **CAPTOR® *Time-Overcurrent Coordination***  
Graphical Time-Overcurrent Coordination. Integrates with one-lines, short-circuit modules, Equipment Evaluation, and Arc Flash. Comprehensive protective device library.
- ◆ **ARC FLASH EVALUATION**  
Calculates the incident energy and arc flash boundary for each bus in the system. Trip times are automatically determined from the protective device settings and arcing fault current values. Incident energy and arc flash boundaries are calculated based on accumulated fault values. Clothing requirements are specified from a user-defined clothing library. Clearing times can be reduced based on current-limiting capabilities. Complies with OSHA, NFPA 70E, NEC 110.16, and IEEE 1584 requirements. Generates custom labels and work permits. *Also available as ArcCalc, a simplified stand-alone Arc Flash calculator.*
- ◆ **A\_FAULT *ANSI Short-Circuit Study***  
Three Phase Short-Circuit based on the ANSI/IEEE C37 Standards. Separate solutions for low, medium and high voltage systems and for symmetrical, momentary and interrupting calculations. (Unbalanced Studies also available)
- ◆ **IEC\_FAULT *IEC Short-Circuit Study 909 or 363***  
Three Phase Short-Circuit Study based on the IEC 60909 or IEC 61363 Standards. (Unbalanced Studies also available)
- ◆ **EQUIPMENT EVALUATION *Equipment Evaluation Report***  
Automatically compares short-circuit ratings, withstand ratings. Applies de-rating adjustments and user defined pass/marginal/failed criteria. Includes error checking for input data and topology.
- ◆ **IEE WIRING REGULATION SIZING**  
Integrates the rules and data tables from the IEE Wiring Regulation to size cables based on the design loads of the power system. Automatically select the correct table from the IEE Wiring Regulation and pick the proper cable size.
- ◆ **TMS *Transient Motor Starting Simulation***  
Time-based motor starting simulation with graphical output. Includes reduced voltage and capacitor starting, graphical motor and load models.
- ◆ **HI\_WAVE *Harmonic Investigation and Filter Design***  
Frequency Scan, Harmonic Current, Voltage Distortion, Harmonic Load Flow and Interactive Filter Design.
- ◆ **I\*SIM *Dynamic Simulation and Transient Stability***  
Dynamic Response to Power System Electro-Mechanical Disturbances, Generator Sizing and Stability, Flux Level Machine Representation. User Defined Graphical Models for Exciter, Turbine Governor, PSS, and other controllers.
- ◆ **UNBALANCED/SINGLE PHASE STUDIES**  
Load flow, short-circuit, demand load analysis, sizing, and load schedules. Reports single-phase loads and unbalanced operating conditions including phase and sequence currents and voltages.
- ◆ **DISTRIBUTION RELIABILITY *Reliability Analysis***  
Calculates the reliability indices of individual load points and the overall distribution systems with either radial or loop configuration. Includes Load Point MTTF, Failure/Year, MTTR, Annual Outage, EENS, ECOST, and other IEEE indices. Cost-related factors and aging factors are included in the analysis to compare alternative designs.
- ◆ **DC SYSTEMS ANALYSIS**  
Battery Sizing, Load Flow, & Short Circuit Analysis. Evaluate all loading conditions for DC duty cycle loads and AC emergency loads. Complies with IEEE std. 485, 1115, 399, 946, and IEC std. 61660.
- ◆ **PTW VIEWER**  
Read-only version of PTW for displaying, printing, and exporting all study results. Create or expand one-lines and apply datablocks. View Time-Current Curves. View and create customized Arc Flash Labels and Work Permits.
- ◆ **GROUND MAT *Substation Ground Grid Design and Analysis***  
Optimizes grid design using general purpose finite element algorithm for potential analysis and graphical facilities to validate grounding systems efficiency.
- ◆ **CABLE-3D**  
Solves complex three-dimensional cable pulling tension and sidewall pressure calculations.

# Combination & Upgrade Pricing Matrix

PTW Program Modules with Add-On Options	PTW-LT 50 Buses	DAPPER 50 Buses	DAPPER 100 Buses	DAPPER 300 Buses	DAPPER 1000 Buses	DAPPER 2000 Buses	DAPPER 5000 Buses	CAPTOR 1000 Buses
<b>BASE PRICE</b>	<b>\$2,495</b>	<b>\$1,500</b>	<b>\$2,995</b>	<b>\$3,995</b>	<b>\$5,995</b>	<b>\$7,995</b>	<b>\$10,995</b>	<b>\$3,495</b>
Maximum Components per Project	150	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited
Baseline (One-line Interface)	included	included	included	included	included	included	included	included
DAPPER Study Modules*	Demand Load and Fault Analysis Only	included	included	included	included	included	included	See DAPPER
CAPTOR - Protective Coordination	included	\$2000	\$2000	\$2500	\$2500	\$2500	\$2500	included
Arc Flash Evaluation	\$2000	\$2000	\$2000	\$2000	\$2000	\$2000	\$2000	\$2000 Requires Fault Study
A_FAULT - ANSI C37 Fault Analysis	\$1000	\$1000	\$1000	\$1500	\$1500	\$1500	\$1500	\$1500
IEC_FAULT 909 or IEC_FAULT 363	\$1000 each	\$1000 each	\$1000 each	\$1500 each	\$1500 each	\$1500 each	\$1500 each	\$1500 each
Equipment Evaluation	\$1000	\$1000	\$1000	\$1500	\$1500	\$1500	\$1500	\$1500
IEE Wiring Regulation Sizing	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000
TMS - Transient Motor Starting	\$2000	\$2000	\$2000	\$2000	\$2000	\$2000	\$2000	\$2000
HI_WAVE Harmonic Analysis	\$2500	\$2500	\$2500	\$3000	\$3000	\$3000	\$3000	\$3000
I*SIM Transient Stability	\$5000	\$5000	\$5000	\$5000	\$5000	\$5000	\$5000	\$5000
Unbalanced Three-Phase/Single-Phase	\$1500 Requires DAPPER	\$1500	\$2000	\$3000	\$3000	\$3000	\$3000	\$3000 Requires DAPPER
Distribution Reliability	\$3995	\$3995	\$3995	\$3995	\$3995	\$3995	\$3995	\$3995
DC Systems Analysis	\$5000	\$5000	\$5000	\$5000	\$5000	\$5000	\$5000	\$5000
Transmission Line Impedance Calcs	included	included	included	included	included	included	included	included
Motor Parameter Estimation	included	included	included	included	included	included	included	included
Data Import / Export	included	included	included	included	included	included	included	included
Scenario Manager	included	included	included	included	included	included	included	included

## ADDITIONAL PROGRAMS

PTW Viewer (2000 Buses)	\$995
PTW Viewer (5000 Buses)	\$1995
Ground Mat	\$3995
CABLE - 3D	\$1000
ArcCalc	\$995

\* DAPPER Study Modules Include: Demand / Design Load Analysis  
Feeder / Transformer Sizing  
Panel, MCC, SWBD Schedules  
Comprehensive Fault Analysis  
Load Flow / Voltage Drop  
Impact Motor Starting

12,000 Bus Modules are also available. Please contact SKM for pricing.

# Special Combination Packages

## PTW Combo-Packs

SKM Systems Analysis, Inc. is pleased to offer two PTW Software combination packages. The Combo-Packs offer the most requested PTW study modules used by over 40,000 engineers. No substitutions allowed on Combo-Packs. Combo-Packs are not available with any other discounts. Existing software packages cannot be upgraded to the Combo-Packs.

### PTW Combo-Pack I

DAPPER  
CAPTOR  
A\_FAULT  
IEC\_909  
IEC\_363

Equipment Evaluation  
Arc Flash Evaluation

Buses	Price*
50	\$4,995
100	\$6,495
300	\$8,495
1000	\$10,995
2000	\$12,995
5000	\$15,995

*Annual Support and Maintenance after 1 year \$1200*

### PTW Combo-Pack II

DAPPER  
CAPTOR  
TMS

Unbalanced Single Phase  
Equipment Evaluation  
Arc Flash Evaluation

Buses	Price*
50	\$4,995
100	\$6,495
300	\$8,495
1000	\$10,995
2000	\$12,995
5000	\$15,995

*Annual Support and Maintenance after 1 year \$1200*



### PTW Power\*Pack

DAPPER  
CAPTOR  
Arc Flash Evaluation

Buses	Price*
50	\$3,995
100	\$5,995
300	\$7,995
1000	\$9,995
2000	\$11,995
5000	\$14,995

*Annual Support and Maintenance after 1 year \$850*

\*Prices includes one year of updates, software maintenance and support.

## New from SKM Systems Analysis, Inc.

### **PTW Viewer**

PTW Viewer is a perfect tool to provide an interactive electrical model to your customers. Rather than paging through long reports, your customers can display results on the interactive one-line, view time-current curves, print arc flash labels, and many other activities. With the Viewer there is no chance of inadvertent changes to the power system model.

#### **PTW Viewer Features:**

- ◆ View, print, and export all study results.
- ◆ Make new one-lines by picking from existing components and expanding the one-lines.
- ◆ Adjust component positions in existing one-lines and add annotations.
- ◆ Modify or make a new datablocks, and apply to any one-line, TCC, etc.
- ◆ Print Arc Flash work permits, standard labels, and create customized labels.

**\$995** each, 2000 Buses

**\$1995** each, 5000 Buses

*Not available with any other discounts.*

### **ArcCalc**

ArcCalc is a stand-alone calculator that calculates the arcing fault current, determines the fault clearing time from the protective device settings, calculates the incident energy, flash boundary and PPE requirements, and produces warning labels and work permits in compliance with NEC, IEEE, NFPA and CSA-Z462 requirements. ArcCalc evaluates a single fault location in a simplified network.

#### **ArcCalc Features:**

- ◆ Intelligent default data for fault sources, transformers, cables, motors, bus gap, and working distance.
- ◆ Comprehensive protective device library with thousands of validated trip curves.
- ◆ Automatically applies tolerances to determine min/max arcing fault currents to provide more conservative results with estimated data.
- ◆ Custom label designer supports plain paper and vinyl label printers.

**\$995** each

*Please contact SKM for multiple copy discounts.*

## PTW Service and Support

Annual maintenance and support services for individual licenses are included for the first year.

### PTW Study Modules

PTW Study Modules	Annual Renewal
PTW-LT	\$350 per year
DAPPER	\$395 per year
CAPTOR	\$395 per year
Arc Flash Evaluation	\$300 per year
A_FAULT	\$200 per year
IEC_FAULT 909	\$200 per year
IEC_FAULT 363	\$200 per year
Equipment Evaluation	\$200 per year
IEE Wiring Regulation Sizing	\$150 per year
TMS	\$300 per year
HI_WAVE	\$250 per year
I*SIM	\$500 per year
Unbalanced/Single Phase	\$350 per year
Distribution Reliability	\$350 per year
DC Systems Analysis	\$500 per year
Additional Baselines Users	\$225 per year
Additional Simultaneous LAN Users	30 to 50% discount (based on quantity)

### Additional Programs

PTW Viewer	\$225 per year
Ground Mat	\$350 per year
CABLE-3D	\$150 per year
ArcCalc	\$150 per year

**Receive a 20% discount on your maintenance for 2 or more study modules when renewed in a timely manner.**

## Upgrades and Multiple Copy Discounts

### Upgrades

When upgrading from any product or combination to another product or combination, you will receive credit as long as the previously purchased software is current in Software Maintenance and Support Service.

### Multiple Copy Discounts

A 15% discount applies to the purchase of additional licenses of the same software combination package. (Excluding Combo\*Packs & Power\*Packs)

### Competitive Upgrades

Call about our competitive upgrade pricing.

## Network Options

### Local Area Network (LAN) Options

#### Single User License: One Baseline with One Network License

Allows one user at a time, regardless of the number of program modules.  
Price: Cost of program or combination package plus \$1500

#### Multiple User License: Two or more Baselines with One Network License

Enables multiple, separate program modules to be accessed at the same time by different users.  
Price: Contact SKM for pricing.

#### Simultaneous User License:

#### Two or more Baselines with Multi-user Study Modules

Enables a single program or multiple program modules to be accessed at the same time by multiple users.

Price: Cost of program or combination package, plus each additional program/combination package at a 20% discount off of full price.

This includes one baseline for each program or combination package purchased. Additional baselines can be added.  
(20% discount not applicable to Combo\*Packs & Power\*Packs)

## Corporate Licenses

### Multi-Site PTW Licenses

Please contact SKM for pricing.

## Specifications

### Minimum System Requirements

Windows 98, ME, NT, 2000, 2003, 2008, XP, Vista, or 7 (32 & 64 bit)  
1.5 GHz Processor or faster (2.0 GHz for 1000+ bus projects)  
1.0 GB of RAM (3.0 GB for 1000+ bus projects)  
10 GB of free hard disk space  
CD-ROM Drive  
USB Port

## What's Included in Your Order?

- ◆ Software program and applicable libraries.
- ◆ Hardware key protection for each license.
- ◆ Software Maintenance and Support Service, including technical support as needed. Maintenance is annually renewable in following years.
- ◆ Major updates as released for one year.
- ◆ User's Guides with step-by-step tutorials.
- ◆ Added Bonus: Free DVD Tutorial Video!
- ◆ UPS Ground Shipping. Expedited shipping available.

## Acceptable Forms of Payment

- ◆ Purchase Order (net 30 days) with approval
- ◆ Check
- ◆ Bank wire transfer
- ◆ Credit Cards: MasterCard or VISA (call for details)



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