POWER*TOOLS[®] ELECTRICAL ENGINEERING SOFTWARE FOR WINDOWS

Power*Tools for Windows Enhancement List Version 10.0



The Leader in Electrical Engineering Software Chosen by the top 40 Electrical Engineering firms in the world.



Power*Tools for Windows Version 10.0 Enhancement List

SKM Mobile App for Apple iOS and Google Android platforms

We are excited to announce an exciting new phone and tablet app that will help engineers be more productive and shorten the time to perform a power system study! The SKM Mobile App allows engineers to collect field data and upload to their MySKM account – to be later imported into the PTW desktop program in order to perform power analysis studies. Engineers can also view & edit PTW projects modeled on the desktop program on the mobile app. Engineers now have the entire power system and results in the palm of their hands!

Equipment settings, specifications, and study results - such as arc flash incident energies and PPE clothing can be accessed in seconds! Use a tablet to take advantage of the split screen mode!



Download it today on the Apple App Store or Google Play Store!

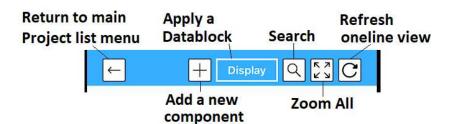




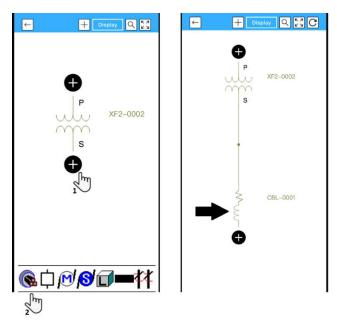
There are 3 views in SKM Mobile app:

- 1. Oneline View
 - Shows the entire power system graphically.
 - Oneline layout is automatically drawn and fixed by the app and layout is continuously enhanced through updates.
 - View Datablocks for each components by clicking on the "Display" button.
 - Pan and zoom using finger gestures.
 - Single tap on component to show the Component Editor.
 - Double tap to show the Branch View.
- 2. Component Editor View
 - Shows component properties in detail.
 - Some equipment has a library available for ease of data entry.
 - \circ $\,$ Capture rich format media and store with the component.
- 3. Branch View
 - The Branch View provides a closer look at a smaller portion of the system one branch at a time.
 - Swipping left or right on the screen will show the next branch.
 - Single click on any component will display the Component Editor.

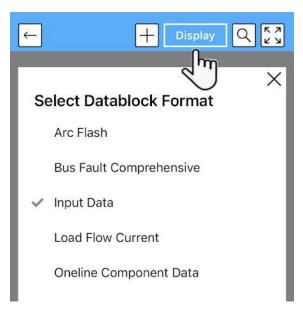
- Display Q 🖉	Component Editor - Cable	Coneline BranchView
UTIL 1	Name CBL-0022 Barcode ID	₩3 % 003-HV SWGR H- % 00 00 00 00 00 00 00 00 00
PD-351 PGE1	In Service In Obta State Incomplete	°22 € R6
P0-381 MS1-M	Length 2.0 ft Library Manufacturer	Св6 С
1		C3 ED E



Clicking on the + button on an unconnected end of a component will bring up a carousel of components. Clicking on any components in the carousel will automatically connect it to the existing component.



Select from a list of available Datablock formats. New formats are continuously added through app updates.



The Search feature allows searching by Name, Type, and Barcode. Once a component is selected, click on 1 of the 3 buttons (Component Editor, Branch View, Oneline) at the bottom to go directly to that component in that particular view.

When a physical equipment has a barcode sticker and the barcode is stored in the app, the user can scan the barcode using the device camera to instantly locate it on the oneline.

←	
	×
×	Name Type Scan Barcode
S	earch Text
	BUS-0001 (Bus)
	CBL-0001 (Cable)
	XF2-0001 (Standard Shell)
	XF2-0002 (Standard Core)
C	omponent Editor Branch View Oneline

The "Media" button will allow capture rich content and save it with the component:

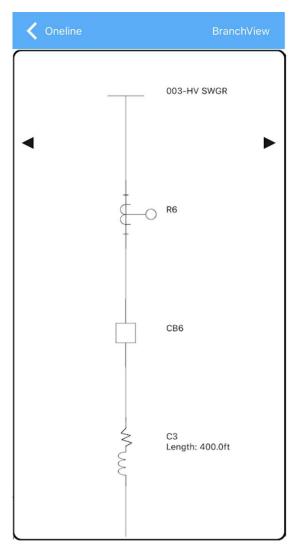
Concline	Component Editor - Cable	
Name		Installation
CBL-0022		
Barcode ID		Cond Desc
		4 Wire+Grnd
la Orași a		Conductor in Parallel / Phase
In Service		2
In		Volts (L-L)
Data State		
Incomplete		22000
Length		Cable Size
2.0	ft	500 kcmil
		System Nominal Voltage
Library	ا ت	21600
Manufacturer		Other Exit
Typical		Media
		- lm

I would like to	×
Take a Picture	
Record a Video	
Draw / Handwrite	
Record an Audio Note	
Attach Existing Pictures	
Attach Existing Videos	
Scan a QR code	

The Branch View provides a closer look at a smaller portion of the system – one branch at a time.

Swiping left or right on the screen will show the next branch.

Single click on any component will display the Component Editor.



Start new projects directly on the mobile app or download a project from your MySKM Cloud account.

< Project List	Project Settings		
Upload to MySKM Cloud	© 🗘	Project List	Project Search 🗱
Project Name	Cables	Cloud projects	
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Cables 2021-02-2	3 11:33 AM 🏠		

For full functionality, SKM Mobile App users will need:

- A MySKM Online User Profile.
- A licensed MySKM Mobile Cloud product/module for project storage and upload/download capabilities. Contact SKM for pricing.

MySKM Cloud

MySKM Cloud allows for project storage from Power*Tools for Windows (Desktop) or SKM Mobile app. Projects can be downloaded or uploaded with a few clicks.

Each cloud project contains a "Maintain Security" interface to add users and control permissions.

Download the projects for importing into PTW, sharing with others, or archiving from anywhere in the world! A separate purchase & maintenance is required to take advantage of this feature.

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Online User Prot Add online users Maintain online u	& securities	25	Maintain up	uploaded conte		

Manage Cloud Projects





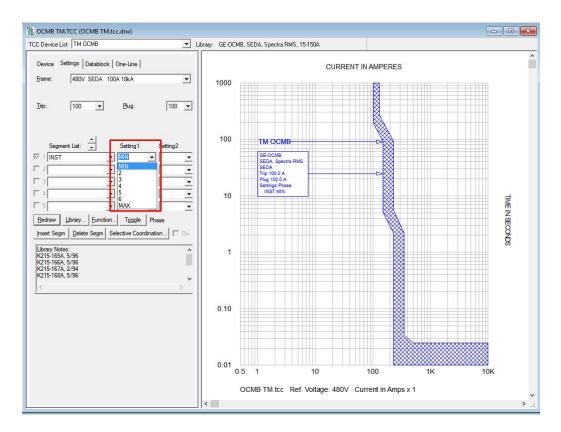
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< Project List	Project Settings				
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In the protective device library, new modeling segment "Open Clear Curves with Multiple Bands" to model multiple open-clearing curves in a single segment. The curves can be selected from the drop-down setting.

gment Data				
me: INST	[¹⁰		Initially	Shown in
pe: Oper	n - Clear Curve	s with Multiple	e Bands	
		Current *	Trip	
urrent in Amp	os Calculated a	as: Cuiterit		
Band 1:	MIN			Band 2:
Upening	Curve	Clearing	Curve	Upening
Current	Time (s)	Current	Time (s)	Current
1.030	1000.000	1.300	1000.000	1.030
1.030	190.000	1.300	270.000	1.030
1.500	93.000	2.300	93.000	0 1.900
1.500	5.200	2.300	5.600	1.900
2.300	2.200	3.500	2.200	3.000
2.300	0.010	3.500	0.045	3.000
180.000	0.010	4.000	0.028	180.000
		5.000	0.025	
		180.000	0.025	



DC Cable Resistance based on Temperature

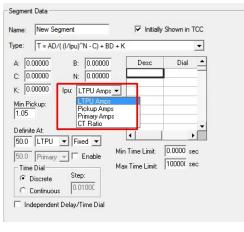
For DC load flow and short circuit studies, new option to adjust the resistance for all DC cables using one temperature value or based on the temperature set on individual cables. New fields in the DC Cable Component Editor, DC Study Setup, and DC Cable Library model.

Component Editor - So	enario[Base Project]	DC Study Setup
Component Subviews:		Battery Sizing Setup Load Flow ANSI SC IEC SC
DC Cable Impedance Notes and Links User-Defined Fields Datablock	Impedance / 1000 Feet R: 0.1600 Ohms L: 0.1220 mH Ampacity. 130.0000 A	Faulted DC Bus C Fault All Buses Image: Fault Selected Buses: Select Faulted DC Bus to Plot Bus Name: DBUS-0001
Scenario Manager All Jump CB DCBL-0002 CB DCBL-0003 CB DCBL-0004 CB DCBL-0005	Resistance Temperature Adjustment Base LF (Max) SC (Min) Temperature: 75 40 20 *C Include Adjustment 20 *C Adjustment	Pre-Fault Voltage C Load Row O I Per Unit Branch Current to Report One Branch Away From Faulted Bus C All Branches
bCBL-0005 bCBL-0006 bCBL-0007 bCBL-0007 bCBL-0008 bCBL-0012 cCAP-0001 v		Include Cable Resistance Adjustment Specified in
Expand Shrink		Double Circuit Rx2 Ignore Battery Impedance

Des	cription:	NEC	, 75C	▼ Type: (Rated Volta	age: 600.00 Volts
Con	tinuous Temp	erature: 75	°C	Resistance	Base Temperature: 75°C 💌
	Cable Size	R (Ohms /1000-feet)	L (mH /1000-feet)	Ampacity (A)	Conductor Type:
1	14	3.2600	0.1538	20.00	- Unit
2	12	2.0500	0.1432	25.00	
3	10	1.2900	0.1326	35.00	English (feet, AWG)
4	8	0.8090	0.1379	50.00 👻	C Metric (meter, mm ²)
		cities in PVC COI			



Added "Primary Amps" and "CT Ratio" to Current Pickup options. (Relay equations in the protective device library.)



Additional Enhancements

Added additional temperatures for cables (105C and 110C).

ieneral	Impedance	Shunt Admittance	Raceway G	around Wire	Ampacity T	emperature C	orrection P	hysical	
AC imp	edance in Ohr	ns/1000 feet at 60 Hz	(per conduct	or)	Resista	nce Base Ten		105℃ 👻	
	Cable Size	MCODE	Neutral Size	Parallel Permitted	R Pos	X Pos	R Zero	20°C 25°C 30°C 40°C 50°C	Rdc micro-ohms/ft
1	14		14	1	3.2781	0.0375	4.0037	55°C	3278.100
2	12		12	1	2.0659	0.0352	2.7489	65°C	2065.900
3	10		10	1	1.3000	0.0332	1,9053	70°C	1300.000
4	8		8	1	0.8172	0.0349	1.3289	75°C	817.200
5	6		6	1	0.5142	0.0358	0.935	90°C	514.200
6	4		4	1	0.3231	0.0337	0.732	110°C	323.100
7	3		3	1	0.2564	0.0326	0.6476		256.400
8	2		2	1	0.2055	0.0319	0.5721	0.0941	205.500
9	1		1	1	0.1628	0.0323	0.4886	0.0922	162.800
10	1/0		1/0	12	0.1304	0.0311	0.4405	0.0883	130.270
11	2/0		2/0	12	0.1044	0.0303	0.2942	0.0859	104.296
12	3/0		3/0	12	0.0836	0.0294	0.2628	0.0836	83.433
13	4/0		4/0	12	0.0670	0.0288	0.2466	0.0816	66.733
14	250		250	12	0.0574	0.0290	0.2206	0.0822	57.114

Modified many existing protective device libraries to optimize synchronization with the new SKM Mobile App.

Arc Flash label Enhancements

Crystal Report Enhancements

Page | 12 Updated October 11, 2021 Accuracy Simplicity Results Excellence

Taking Power Systems Analysis and Design to New Heights



OTHER RESOURCES

Website at skm.com

- SKM Customer Portal
- Application Guides
- Power Systems Study Specification
- Frequently Asked Questions
- Tutorial Videos
- SKM Training Courses

SKM Help Desk at support.skm.com



SKM Systems Analysis, Inc. 1 Pearl Street Redondo Beach, CA 90277 Phone: 1-800-500-4SKM

sales@skm.com support@skm.com www.skm.com

