What's New in Version 11 of ASPEN DistriView

The following are improvements in version 11 of ASPEN DistriView[™].

1. New S_Ckt | Fault Locator command that is capable of locating faults on a feeder based on voltage and current data collected in a COMTRADE, PDQ, or SEL event files with either EVE or CEV extension. You can alternatively enter the voltage and current data by hand. The picture below shows the waveform captured by an SEL relay for a line-to-line fault between phases 'a' and 'c'. You can select a snapshot of the waveform for analysis by moving the vertical black line in the plot. The program will report one or several possible locations for the fault.

Fault Locator	Read Event Phasor
Recorded Quantities DFA at: 120 1BusA 12kV Ia= 997.8 © 112.3 Ib = 2.8 © -45.0 Ic = 945.2 © -88.9 Va= 307.8 © -51.2 Vb = 1.1 © -78.9 Vc = 298.9 © 68.7 Currents are in Amp@degree; Voltages are in kV-LN@degree, Primary RMS Copy/Paste Read from file Clear all	Channel Selection Select Channels Data Selection Show: C Waveform C RMS
Fault ^C 3LG C BCG C CAG C ABG C AG C BG C CG C BC C CA C AB Apparent Z (ohm) = -274.7 + j -274.7 Compute	la=997.8@112.3; lb=2.8@-45.0; lo=945.2@-88.9A
OK Cancel Help	Phasor Calculation PTR = 1:1 CTR = 1:1 C 1-cycle Fourier transform Image: SEL 1/4-cycle method
OK Cancel Help	Phasor Calculation PTR = 1:1 CTR = 1:1 C 1-cycle Fourier transform • SEL 1/4-cycle metho

2. Added a S_Ckt | Arc flash hazard calculator command to support 2018 edition of IEEE-1584 Standard. The command that is based on the 2011 edition of the standard is still in the program.

IEEE-1584-2018 Arc-Flash Hazard Calculator	
Compute arc-flash hazard at: 📀 Highlighted node on the 1-line 🔿 Select list of nodes	
Electrode configuration: VCB: Vertical, inside metal enclosure	
Endosure H= 45. W= 30. D= (in.)	
Conductor gap (mm) = 104 Working distance (in.) = 36 Use typical values	
Fault dearing Manual	
Fault dearing time (sec) 0.197 Output to TTY Window	
OK Cancel Help	

3. New ArcFM Data Conversion Program for network data in Excel format that are exported from ArcFM GIS systems. The documentation of this data conversion program is in the appendix of the DistriView User's Manual.

4. New Add | Accuracy Boundary commands in the OC Curves Window that lets you display a plus and a minus boundary around overcurrent curves to indicate uncertainties in operating time. You can specify different accuracy limits for relays, fuses and recloser.



Note the dotted lines drawn above and below each of the curves.



5. Expanded font-size limits in the Main Window. The lower and uppers limits are 4 points and 28 points. These are the same limits in OneLiner v14.

6. Enhanced Check | I2T Limit of Lines and Cables command. A new parameter within the Line/Cable info dialog box lets you to specify a separate I2T limit for the neutral of cables. The Check | I2T Limit of Lines and Cables command will check the neutral current against this limit for the neutral conductor if it is not zero.

3-Phase Line / Cable Section Data		
General Parameters Reliability		
1201BusA 12kV - Name= Circuit II	1250 12kV D= Length= 2. mi ▼	
□ I^2*T rating of phase conductor 1000000. Amp^2 sec Multiplier= 1.	I [^] 2*T rating of neutral conductor 1000000. Amp ^{^2} sec.	
Section Load	Current ratings in Amps	
Total kVA = 271.35	Summer 40.	
C L-N C L-L No. of Consumers = 1800	Winter 40. Emergency 40. PANIC 40.	
Edit consumer & load alloc param.	Copy from Library	
Impedances Manual	✓ Phases ABC	
Memo	۸ ۳	
Config.: None		
	OK Cancel	

7. New Converter-Interfaced Generator Model for modeling solar and type-4 wind plants. This model is based on the findings of the C24 Working Group of the IEEE Protective Relaying Committee and research funded by EPRI. This model can also be used for battery storage, compressed air and any other storage or generation resources that are connected to the utility though inverters.

Converter-Interfaced Generator	
At 0 BUS2 12kV	
Name= ABC	
Number of units= 10	
Unit kVA rating= 330.	
Unit kW generation = 320.	
Max current (in multiple of full-load current)	
When V (pu) > 0.4 Max I= 1.1	
Otherwise, reduce current to Max I = 0.5	
Memo	
XYY	
OK Cancel Help	

Advanced Parameters of Converter-Interfaced Generator		
Fault Ride Through (FRT) Voltage deadband extent=		
Slope for FRT characteristics= 2.		
Generator Shuts Down When a phase voltage exceeds 1.5 pu		
When a phase voltage drops below 0.05 pu		
OK Cancel Help		

8. New Type-3 Wind Generator Model. This model is based on the findings of the C24 Working Group of the IEEE Protective Relaying Committee and research funded by EPRI. It can model both the crowbarred state and the controlled doubly-fed generating state of the generator.

Doubly-Fed (Type-3) Wind Generator		
At 0 1201BusB 12kV		
Name = ABCSSS		
Number of units= 11		
Unit kVA rating = 333.		
Unit rated kW= 330.		
Unit kW generation= 330.		
Converter current limits		
Rotor-side limit= 1.1 pu		
Grid-side limit= 0.35 pu		
Memo		
XYTZZZ		
OK Cancel Help		

Advanced Parameters of Type-3 Wind Generator		
Fault Ride Through (FRT)		
	Voltage deadband extent= 0.2 pu	
	Slope of FRT characteristics= 2.	
Generator Shuts Down		
When a phase voltage exceeds 1.5 pu		
When	a phase voltage drops below 0.05 pu	
Machine parameters in pu		
Rotor R= 0.03	Stator R= 0.03	
Rotor leakage L = 0.2	Stator leakage L = 0.2	
	Mutual L = 3.	
Misc Parameters		
Slip at rated kW = -0.2	Filter X=	
ОК	Cancel Help	

Installing DistriView Version 11

Please follow these instructions to install the DistriView v11 on your PC:

1. Recommended: Backup your data including all binary data files (with .dtv extension), distance relay library file (with .drl extension), overcurrent curve files (with extension .rly) that you have customized, the conductor library file (with .cdb extension), and reliability class library file (with .rlb extension), just in case.

Note: You do NOT have to uninstall v10 prior to installing v11. Versions 10 and 11 can coexist on your PC at the same time, allowing you to check to make sure that the new version gives the same answer as the previous one.

- 2. Use the link provided to download the setup program to your hard disk.
- 3. Run the setup program. Windows administrative privilege is required. Choose 'Regular Setup' unless you are making a file-server setup for a "Workstation Setup". If needed, use the link provided to download the latest Getting Started document for more information.