

# Paladin® DesignBase™

## New Features



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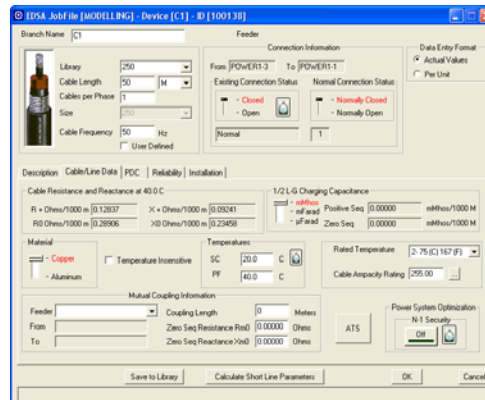
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## What is new in this release

This document shows some of the major new features in DesignBase 2.0. For complete instructions, refer to the user's guides on the Documents CD.

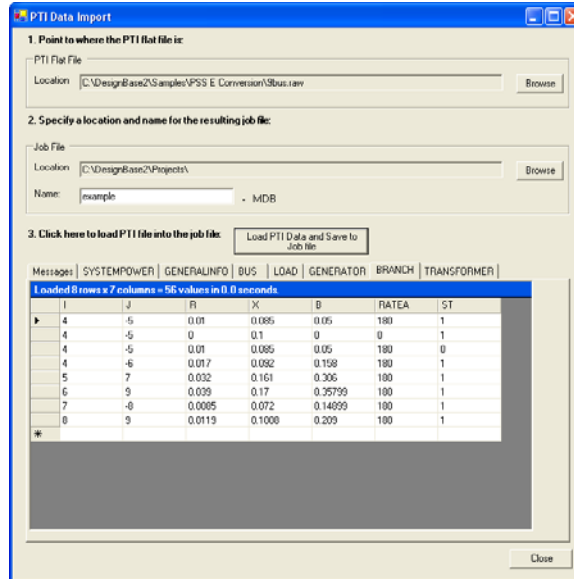
### General functions

- Completely new database format (ODBC)
- Enhanced editor speed (editing, saving, copy/paste, etc.); significant enhancements especially for the large files.
- Reduced number of project files
- Comprehensive and simplified device editor. New device editor contains lower number of fields; eliminated repetitive information.



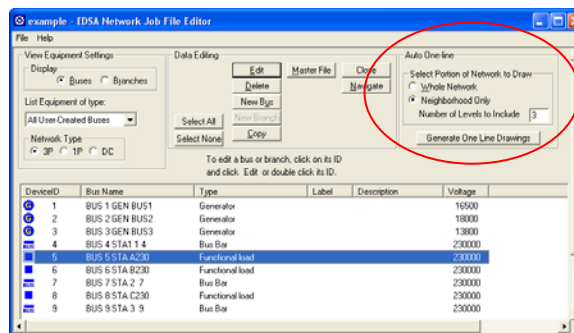
## Import PSS/E project data

- Automatic conversion of PSS/E raw data file into DesignBase database



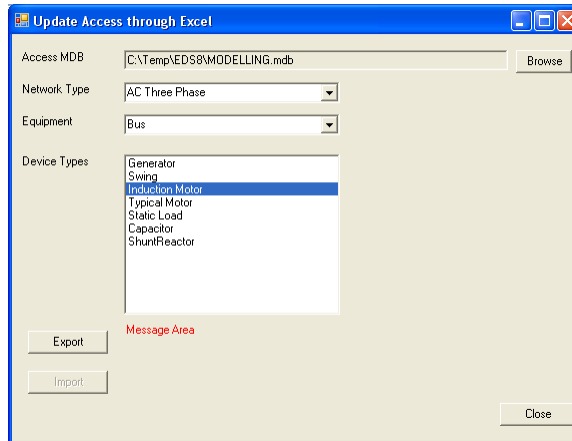
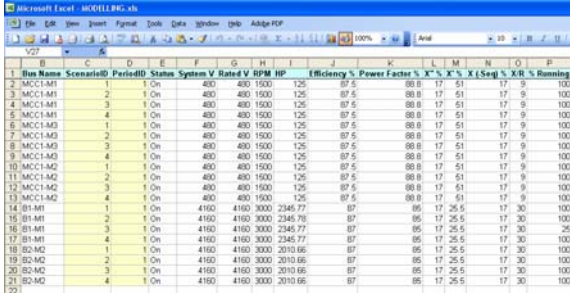
## Auto One-Line feature

- Ability to automatically create one-line from project database.
- Ability to select the entire network or to define a neighborhood of interest.



## Export / Import function

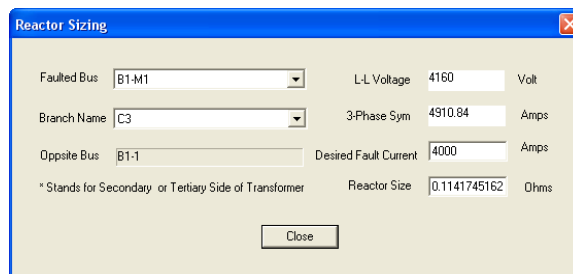
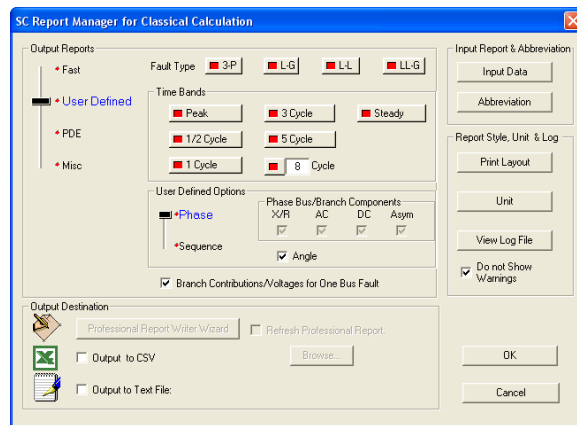
- Export project database to Microsoft Excel
- Review and change the data, if needed, in Excel
- Import the data back to project database

Run Name	ScenarioID	PeriodID	Status	System V	Rated V	RPM	HP	Efficiency %	Power Factor %	X%	R %	X (Seq) %	X R %	Running
1	MCC1-M1	1	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
2	MCC1-M1	2	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
3	MCC1-M1	3	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
4	MCC1-M1	4	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
5	MCC1-M1	4	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
6	MCC1-M3	1	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
7	MCC1-M3	2	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
8	MCC1-M3	3	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
9	MCC1-M3	4	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
10	MCC1-M2	1	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
11	MCC1-M2	2	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
12	MCC1-M2	3	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
13	MCC1-M2	4	1 On	400	400	1500	125	87.5	88.8	17	51	17	9	100
14	BI-M1	1	1 On	4150	4160	3000	2345.77	87	85	17	25.5	17	30	100
15	BI-M1	2	1 On	4150	4160	3000	2345.78	87	85	17	25.5	17	30	100
16	BI-M1	3	1 On	4150	4160	3000	2345.77	87	85	17	25.5	17	30	25
17	BI-M1	4	1 On	4150	4160	3000	2345.77	87	85	17	25.5	17	30	100
18	B2-M2	1	1 On	4150	4160	3000	2010.66	87	85	17	25.5	17	30	100
19	B2-M2	2	1 On	4150	4160	3000	2010.66	87	85	17	25.5	17	30	100
20	B2-M2	3	1 On	4150	4160	3000	2010.66	87	85	17	25.5	17	30	100
21	B2-M2	4	1 On	4150	4160	3000	2010.66	87	85	17	25.5	17	30	100
221														

### Short Circuit:

- New Network Equivalent feature
- New Reactor Sizing feature
- New simplified GUI (toolbar, report and annotation dialogs)
- New report types (fast reports, summary reports...)
- Reporting based on areas/zones
- Shunt parameters included in Short Circuit based on power flow simulation
- User defined phases with fault
- “Pass margin” added to protective device evaluation



## Power Flow

- Power flow based on governor response solution, generation distributed based on equal droop

## PDC

- IEC and IEEE short circuit currents now available in PDC

## Arc Flash

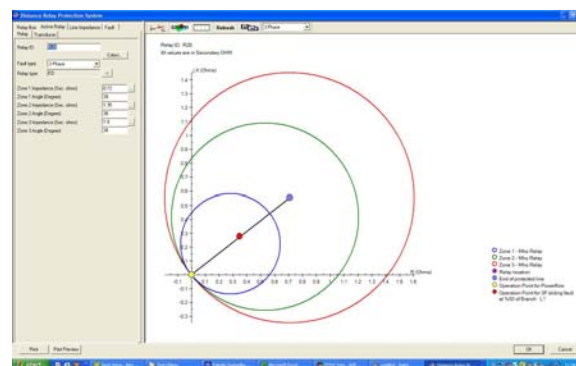
- New label styles
- Customized labels for DuraLabel printers
- Enhanced speed

<b>! DANGER</b>	
<b>QUALIFIED WORKERS ONLY</b>	
<b>Appropriate PPE Required</b>	
16 Inches	Flash Hazard Boundary
Category 0	Flash Hazard Category
1.0 Cal/cm <sup>2</sup>	Flash Hazard at 17.9 Inches
16.2 kA	Bolted Fault Current
Arc Flash boundary at energy < 1.2 cal/cm <sup>2</sup>	
<b>SHOCK HAZARD</b>	
480 VAC	Shock Hazard when cover is removed
00	Glove Class with leather protectors
120 inches	Limited Approach Boundary
12 inches	Restricted Approach Boundary
1 inches	Prohibited Approach Boundary
<b>Equipment ID: MCC1-M1</b>	
Project: MODELLING	
Wed Nov 26 11:58:42 2008	

<b>Bus Electrical Shock and Flash Hazard</b>		
<b>Appropriate PPE Required</b>		
0	Max PPE Level	
1.0	Cal/cm <sup>2</sup> Flash Hazard at 17.9 Inches	
16.2	kA Bolted Fault Current	
16	Inches Flash Hazard Boundary	
00	Glove Class	Insulated Tools
<input type="checkbox"/>	Face Shield	Eye Protection
<input checked="" type="checkbox"/>	Hair/Beard Net Not Allowed	
Required <input checked="" type="checkbox"/>	Not Required <input type="checkbox"/>	Arc Flash boundary at energy < 1.2 cal/cm <sup>2</sup>
480 Volts Shock Hazard when cover is removed		
Shock Distances (inches) - Limited = 120, Restricted = 12, Prohibited = 1		
Project: MODELLING		Equipment Name: MCC1-M1

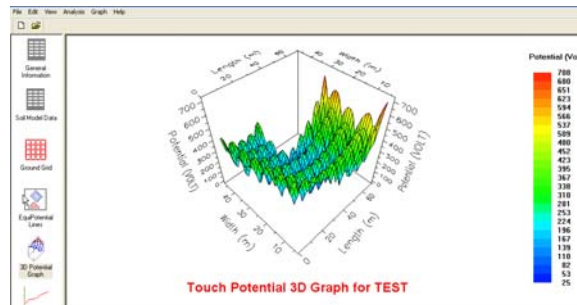
## ***New Impedance Relay program***

- A comprehensive library with Siemens, ABB, SEL, Areva, GE and GEC relays
- Complete default relay data
- Display up to three location each location look into three zones
- Forward and backward zones
- All types of fault including sliding fault



## Grounding Grid

- New capability to identify maximum touch voltage within a user defined area.
- New capability for computing potentials (touch or absolute value) in a user defined irregular shape.
- New option to export the values of the potentials along an axis, potentials within a regular area, or potentials within an irregular area in Microsoft Excel.



## Transmission Line Constants with magnetic field computation

- Computation of the magnetic field added to the transmission line parameters
- Export results to Microsoft Excel

