Protection

Objective:

To train protection staff how to place and coordinate protection relays in PowerFactory. The objective is to allow protection engineers and technicians the ability to fully utilise Powerfactory for their protection grading and co-ordination studies.

Pre-requisites:

- **MUST have attended the Powerfactory Basic course**
- Basic protection coordination theory and experience.

No of participants: Minimum: 6; Maximum: 12.

Cost: see www.digsilent.co.za for latest course fees, which includes a set of course notes, lunch and refreshments.
Computers and PowerFactory licences are also supplied.
Please note the booking clauses on the registration form.

CPD Points: 2

Duration: 2 days

Topics to be covered:

Relay modelling general aspects

- Structure of relay models
- Relay library
- Over-current-time relays (including fuses and LV circuit breakers)
- Creating CTs and VTs

Application of over-current protection relays

- Using standard protection elements from the library
- Modelling new fuse types
- Time over-current plots.
- Motor protection.
- Transformer protection.
- Cable protection.
- Defining of coordination paths.

Application of distance protection relays

- Application of distance protection relays.
- Path definition.
- R-X diagrams
- Time distance diagrams.

Exercises

- Tutorial: over-current protection.
- Tutorial: distance protection.