

FOCUSING ON... DIGITIZATION SUPPORTING... GREEN!









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Our Partners

These are some of the partners we have the pleasure to work with.























WHAT WE DO IS EMPOWER VARIOUS APPLICATION AREAS.

YOU ARE WELCOME.



ProLed 3.0 Plan the future!



ProLED 3.0 About ProLED



ProLED, acronym for "Design of Distribution Power Lines", is an IT system created to perform the design and mechanical check of average and low voltage power lines in compliance with IEC-11-4-1998, IEC-11-4-2011 and IEC EN **50341-2-13** standards.

The designer can use ProLED through Web Browser (Google-Chrome).



ProLED 3.0 ProLED vision & mission

> Vision

- Create a tool that can become **a standard** for the design of power lines in Italy
- Mission
 - Create an easy to use and accessible tool
- A bit of history...
 - The first version of ProLED was released in 2012 >
 - 2015: Official release of the 2.0 version >
 - 2019: Official release of ProLED 3.0 >

> ProLED 3.0 Main Features

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DESIGN

- Powerline design in a CAD-like environment accessible via browser.
- Modification of existing powerlines, creation of new powerlines and evaluation of different project scenarios.
- General view from the top of the powerline, integration with a cadastral map or Google Maps.
- Defining approximate paths from a raster or Google Maps image...



ROUTE

PROFILE

- Detail of the spans to assess compliance with the minimum vertical and horizontal distances.
- Immediate visualization of the violation of the minimum distances, with red marking of the overhead contact line.

ProLED Main Features

Relief environment

Table

Track of the defined points

Google Maps



> ProLED 3.0 The Work-Flow

Designer workflow: 7 steps to carry out a project.

Each project is associated with a specific power line.









New project, data setting and definition of the relief

- 1. Selection of the CEI standard, of the area, of the proposed support for pilling;
- 2. Preparation of the data of the plan-altimetric relief;
- 3. Refinement of the relief: identification of supports, placement of crossings, alignment of the vertices
- 4. We can start designing



ProLED 3.0 Input: The relief

- The relief can be created through different inputs:
 - **Dxf format**: generated by topographical tools, it contains only the beaten points.)
 - **Zip format**: it is possible to import and work on a project already created in ProLED, both in its complete version and the one limited to the definition of the relief
 - Manual creation: tapping the points and calibrating them directly from the Google Maps) environment, (or alternatively an orthophoto or cadastral map in raster format).

> ProLED 3.0 The design workflow

- Vertex addition and piling
- Configuration of the conductors
- Powerline Connection
- Verification of vertical and horizontal distances
- Generation of outputs: Picketing table, Tension table, support list, project printing, export (pdf,dxf,png)

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> ProLED 3.0 Vertexes and new supports



ProLED automatically inserts the supports that are vertices and the existing supports, according to the relief file. It allows the designer to add new supports to the powerline and "drag" them to the desired position.

The supports present in ProLED are of the Cab, Monostelo or Truss type, of old and new unification

The colors indicate terminus, amarro, suspension

ProLED 3.0 Span Configuration

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Definition of the means of the powerline and realization of the connections between the supports present. It is possible to connect the supports using different means and of different classes.





ProLED 3.0 Distances verification



Positioning of the amarri, calculation of the overhead lines in maximum deflection and maximum parameter, verification of vertical distances from all crossings, verification of horizontal distances, verification of intersection with TLC lines.



ProLED 3.0 Performance Calculation



zioni sul sostegno, ipotesi I-III e II-IV



Calculation of the actions of the powerline and the environment on the support, verification of the foundation, verification of the brackets and supports, control of the breaking load, calculation of pulls and laying arrows.







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Picketing table, tension table and support pull, development of the map, dxf export, diagrams usage, shape file export.





THANKS FOR THE ATTENTION



Contacts





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