# TecAt 6 - Tutorial - Resistivity
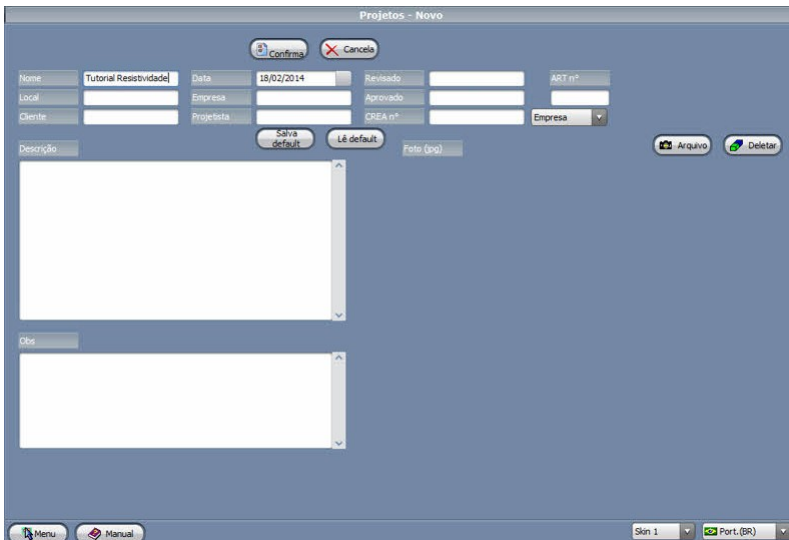
## 1 - Select Projects/New

To start a new project, please select, on the Menu bar, the Projects tab, then click on New:



## 2 - Give it a name (and other data, if you wish) and click Confirm

You can enter other data and info on your project on this screen, they will be included on the report but are not used on calculations, so we'll let them blank here:



## 3 - Open the project = load it to the memory

When you create a new project or select one from the table, you must click on the Open button to efffectively load its data to memory - you can check the project currently on memory at the top bar of the software: "TecAt 6 - nameofcurrentproject".
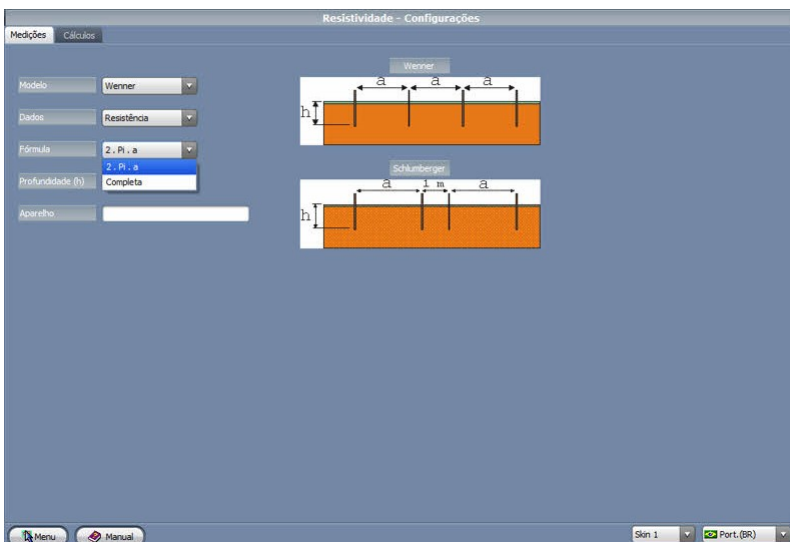
# 4 – Resistivity – Configurations

At the Menu bar, select Resistivity, then Configurations:



Choose the model (usually Wenner), select if your data is resistivity or resistance, select complete formula or the reduced form "2 x Pi x a" - for the complete formula, you need the depth the metter rod penetrated the soil during the measurements:

5 - Field data entering

Select Resistivity / Measures:



Now you will enter the data on spacing at a time: click in New, then enter the spacing (e.g. 2 meters) and each the resistance (or resistivity) for each line; when finish, click on Validate to check the data:



6 - Select layer model and go

On Menu / Resistivity, select Calculations:

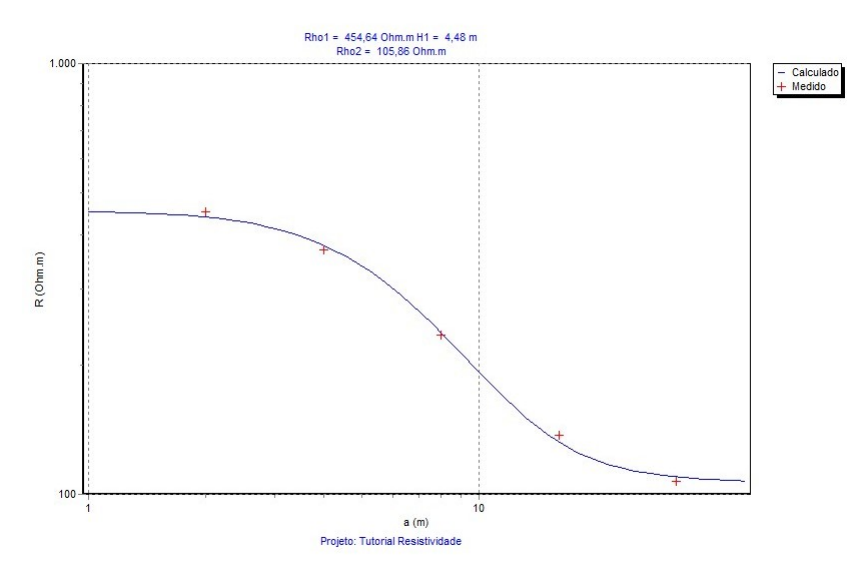You can select Auto or force 2-, 3- or 4-layer model, but please note that, for mathematical reasons, you need at least 3 spacings for model a soil in 2-layer model, 5 spacings for 3-layer and 7 spacings for model a 4-layer soil. Note that version **TecAt LE** has only the 2-layer model.
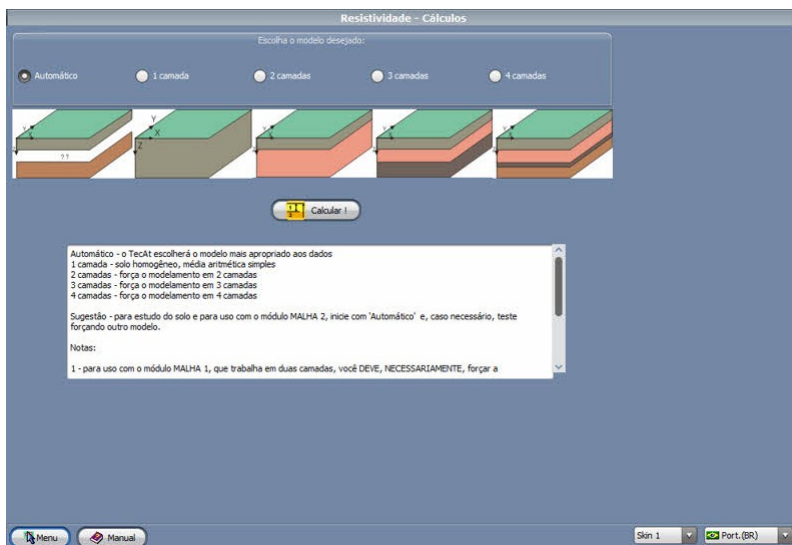


Obs: if the button Calculate isn't visible, you forget to Validate the field data, just go back and click on Validate.

7 - Graphical Report

When you click in Calculate, TecAt does the necessary calculations and changes to the Report/Resistivity screen; at the Graphics tab you can visualize the curve Resistivity x spacings (log-log scales), with the field data (red crosses) and the result curve (blue line):

Rho1 = 454,64 Ohm.m H1 = 4,48 m
Rho2 = 105,86 Ohm.m

Projeto: Tutorial Resistividade

## 8 - Text Report

At the Text tab, select the data you want:



With the buttons on the right, you can print or export to PDF (Text and Graphical reports together), Copy the current screen to clipboard, or export (.TXT or .JPG if Text or Graphical screen).

It's considered satisfactory if you get each point deviation under 20% and RMS deviation of the set at less than 15%. If you get bigger values, you sould try a model with more layers - or maybe go back to the field to check again - so it's a good idea to have at least **TecAt LE** instaled on your notebook!